S1 Detail of all clusters including more than 500 papers

Custers of urban sustainability studies. Clusters are sorted by number of the papers included in each cluster.

#	Name	#Papers	Year	TFIDF	Top_papers
1	Urbanization	8,211	2020.80	land, ecological, development, urban, spatial, china, urbanization, use, rural, ecosystem	[('Science', 'Global change and the ecology of cities', '10.1126/science.1150195', (5635,)), ('Transport Policy', 'Towards a theory of decoupling: Degrees of decoupling in the EU and the case of road traffic in Finland between 1970 and 2001', '10.1016/j.tranpol.2005.01.001', (1463,)), ('International Journal of Hydrogen Energy', 'Hydrogen futures: Toward a sustainable energy system', '10.1016/S0360-3199(01)00131-8', (1364,)), ('Landscape Ecology', 'Landscape sustainability science: Ecosystem services and human well-being in changing landscapes', '10.1007/s10980-013-9894-9', (1243,)), ('Capitalism with Chinese Characteristics: Entrepreneurship and the State', 'Capitalism with Chinese characteristics: Entrepreneurship and the state', '10.1017/CBO9780511754210', (1148,)), ('Earth-Science Reviews', 'Rocky desertification in Southwest China: Impacts, causes, and restoration', '10.1016/j.earscirev.2014.01.005', (1065,)), ('Proceedings of the National Academy of Sciences of the United States of America', 'Future urban land expansion and implications for global croplands', '10.1073/pnas.1606036114', (1059,)), ('Land Use Policy', 'Key issues of land use in China and implications for policy making', '10.1016/j.landusepol.2013.03.013', (1045,)), ('Landscape and Urban Planning', 'Urban agglomeration: An evolving concept of an emerging phenomenon', '10.1016/j.landurbplan.2017.02.014', (809,)), ('Landscape Online', "Landscapes' capacities to provide ecosystem services - A concept for land-cover based assessments", '10.3097/LO.200915', (722,)), ('Science of the Total Environment, The', 'Linking ecosystem services and circuit theory to identify ecological security patterns', '10.1016/j.scitotenv.2018.06.292', (710,)), ('Proceedings of the National Academy of Sciences of the United States of America', 'Projected land-use change impacts on ecosystem services in the United States', '10.1073/pnas.1405557111', (701,)), ('Proceedings of the National Academy of Sciences of the United States of America', 'Urban land teleconnections and sustainability', '10.1073/pnas.1117622109', (701,)), ('Land Use Policy', 'Introduction to land use and rural sustainability in China', '10.1016/j.landusepol.2018.01.032', (659,)), ('Nature Sustainability', 'High-spatiotemporal-resolution mapping of global urban change from 1985 to 2015', '10.1038/s41893-020-0521-x', (653,)), ('Science of the Total Environment, The', 'Land use change, urbanization, and change in landscape pattern in a metropolitan area', '10.1016/j.scitotenv.2018.11.267', (624,)), ('Proceedings of the National Academy of Sciences of the United States of America', 'Policy distortions, farm size, and the overuse of agricultural chemicals in China', '10.1073/pnas.1806645115', (619,)), ('Journal of Rural Studies', 'Why some rural areas decline while some others not: An overview of rural evolution in the world', '10.1016/j.jrurstud.2019.03.003', (591,)), ('Habitat International', 'Assessment on the urbanization strategy in China: Achievements, challenges and reflections', '10.1016/j.habitatint.2017.11.009', (589,)), ('Annual Review of Environment and Resources', 'The new geography of contemporary urbanization and the environment', '10.1146/annurev-environ-100809-125336', (581,))]
2	Mobility	7,282	2019.49	transport, mobility, transportation, urban, public, travel, traffic, cities, sustainable, transit	[('The Lancet. Child & adolescent health', 'Global trends in insufficient physical activity among adolescents: a pooled analysis of 298 population-based surveys with 1·6 million participants', '10.1016/S2352-4642(19)30323-2', (2348,)), ('Transport Policy', 'The sustainable mobility paradigm', '10.1016/j.tranpol.2007.10.005', (1880,)), ('Smart Cities', 'Introducing the “15-minute city”: Sustainability, resilience and place identity in future post-pandemic cities', '10.3390/smartcities4010006', (1075,)), ('The Lancet', 'City planning and population health: a global challenge', '10.1016/S0140-6736(16)30066-6', (996,)), ('Transportation Research Part C', 'Assessing public opinions of and interest in new vehicle technologies: An Austin perspective', '10.1016/j.trc.2016.01.019', (908,)), ('Nature', 'A global map of travel time to cities to assess inequalities in accessibility in 2015', '10.1038/nature25181', (865,)), ('Science of the Total Environment, The', 'The COVID-19 pandemic: Impacts on cities and major lessons for urban planning, design, and management', '10.1016/j.scitotenv.2020.142391', (841,)), ('International Journal of Sustainable Transportation', 'Influences of built environments on walking and cycling: Lessons from Bogotá', '10.1080/15568310802178314', (686,)), ('Nature Sustainability', 'The short-term impacts of COVID-19 lockdown on urban air pollution in China', '10.1038/s41893-020-0581-y', (638,)), ('Transport Policy', 'Quality attributes of public transport that attract car users: A research review', '10.1016/j.tranpol.2012.11.005', (609,)), ('Unsustainable Transport: City Transport in the New Century', 'Unsustainable transport: City transport in the new century', '10.4324/9780203003886', (498,)), ('Sustainable Cities and Society', 'Antivirus-built environment: Lessons learned from Covid-19 pandemic', '10.1016/j.scs.2020.102350', (478,)), ('Sustainability', 'Sustainable urban transport in the developing world: Beyond megacities', '10.3390/su7067784', (409,)), ('Energy Conversion and Management', 'Sustainable urban rail systems: Strategies and technologies for optimal management of regenerative braking energy', '10.1016/j.enconman.2013.06.039', (400,)), ('International Journal of Sustainable Transportation', 'Understanding the usage of dockless bike sharing in Singapore', '10.1080/15568318.2018.1429696', (398,)), ('Urban Design International', 'What is a walkable place? The walkability debate in urban design', '10.1057/udi.2015.22', (395,)), ('Research in Transportation Business and Management', 'Bike sharing: A review of evidence on impacts and processes of implementation and operation', '10.1016/j.rtbm.2015.03.003', (395,)), ('Transport Policy', 'Sustainable accessibility: A conceptual framework to integrate transport and land use plan-making. Two test-applications in the Netherlands and a reflection on the way forward', '10.1016/j.tranpol.2005.01.006', (395,)), ('International Journal of Robotics Research', 'Control of robotic mobility-on-demand systems: A queueing-theoretical perspective', '10.1177/0278364915581863', (383,)), ('The Lancet Planetary Health', 'Premature mortality due to air pollution in European cities: a health impact assessment', '10.1016/S2542-5196(20)30272-2', (381,))]
3	Water	6,351	2018.13	water, urban, management, groundwater, wastewater, stormwater, flood, systems, drainage, treatment	[('Water Resources Research', 'Water management: Current and future challenges and research directions', '10.1002/2014WR016869', (986,)), ('Nature', 'Satellite imaging reveals increased proportion of population exposed to floods', '10.1038/s41586-021-03695-w', (848,)), ('Water (Switzerland)', 'Various natural and anthropogenic factors responsible for water quality degradation: A review', '10.3390/w13192660', (767,)), ('Journal of Hydrology', 'Hospital effluents as a source of emerging pollutants: An overview of micropollutants and sustainable treatment options', '10.1016/j.jhydrol.2010.06.005', (712,)), ('Science', 'Emerging solutions to the water challenges of an urbanizing world', '10.1126/science.aad8641', (640,)), ('Proceedings of the National Academy of Sciences of the United States of America', 'Urban growth, climate change, and freshwater availability', '10.1073/pnas.1011615108', (614,)), ('International Journal of Environmental Science and Technology', 'Mechanisms and adsorption capacities of biochar for the removal of organic and inorganic pollutants from industrial wastewater', '10.1007/s13762-020-03060-w', (591,)), ('Journal of Hydrology', 'A wavelet neural network conjunction model for groundwater level forecasting', '10.1016/j.jhydrol.2011.06.013', (578,)), ('Water Science and Technology', 'Urban water management in cities: historical, current and future regimes', '10.2166/wst.2009.029', (569,)), ('Computer-Aided Civil and Infrastructure Engineering', 'Multicriteria planning of post-earthquake sustainable reconstruction', '10.1111/1467-8667.00269', (535,)), ('Freshwater Biology', 'Preserving the biodiversity and ecological services of rivers: New challenges and research opportunities', '10.1111/j.1365-2427.2009.02340.x', (509,)), ('Journal of Cleaner Production', 'Wastewater treatment in microbial fuel cells - An overview', '10.1016/j.jclepro.2016.02.022', (504,)), ('Water Research', 'Key issues for sustainable urban stormwater management', '10.1016/j.watres.2012.05.029', (500,)), ('Environmental Management', 'Impediments and solutions to sustainable, watershed-scale urban stormwater management: Lessons from Australia and the United States', '10.1007/s00267-008-9119-1', (497,)), ('Ecological Applications', 'Meeting ecological and societal needs for freshwater', '10.1890/1051-0761(2002)012[1247:MEASNF]2.0.CO;2', (488,)), ('Journal of Environmental Management', 'The effects of low impact development on urban flooding under different rainfall characteristics', '10.1016/j.jenvman.2013.08.026', (479,)), ('Land Use Policy', '“Sponge City” in China—A breakthrough of planning and flood risk management in the urban context', '10.1016/j.landusepol.2018.03.005', (479,)), ('Water Research', 'Dissolved effluent organic matter: Characteristics and potential implications in wastewater treatment and reuse applications', '10.1016/j.watres.2015.03.011', (479,)), ('Building and Environment', 'Review of permeable pavement systems', '10.1016/j.buildenv.2006.11.016', (477,)), ('Marine Pollution Bulletin', 'An ANN application for water quality forecasting', '10.1016/j.marpolbul.2008.05.021', (462,))]
4	Smart City	6,061	2019.19	smart, cities, city, urban, development, sustainability, sustainable, energy, planning, data	[('Journal of Urban Technology', 'Smart cities in Europe', '10.1080/10630732.2011.601117', (2645,)), ('GeoJournal', 'The real-time city? Big data and smart urbanism', '10.1007/s10708-013-9516-8', (2018,)), ('Sustainable Cities and Society', 'Towards sustainable smart cities: A review of trends, architectures, components, and open challenges in smart cities', '10.1016/j.scs.2018.01.053', (1424,)), ('Journal of the American Planning Association', 'Green Cities, Growing Cities, Just Cities?: Urban planning and the contradictions of sustainable development', '10.1080/01944369608975696', (1236,)), ('Sustainable Cities and Society', 'Smart sustainable cities of the future: An extensive interdisciplinary literature review', '10.1016/j.scs.2017.02.016', (1179,)), ('Cities', 'What are the differences between sustainable and smart cities?', '10.1016/j.cities.2016.09.009', (1068,)), ('Journal of Planning Education and Research', 'Sustainable urban forms: Their typologies, models, and concepts', '10.1177/0739456X05285119', (948,)), ('Environmental Politics', "Rethinking sustainable cities: Multilevel governance and the 'urban' politics of climate change", '10.1080/0964401042000310178', (931,)), ('Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)', 'Smart cities and the future internet: Towards cooperation frameworks for open innovation', '10.1007/978-3-642-20898-0_31', (904,)), ('Journal of Cleaner Production', 'Sustainable-smart-resilient-low carbon-eco-knowledge cities; Making sense of a multitude of concepts promoting sustainable urbanization', '10.1016/j.jclepro.2015.02.004', (867,)), ('Cities', 'On big data, artificial intelligence and smart cities', '10.1016/j.cities.2019.01.032', (848,)), ('European Transactions on Telecommunications', 'Sensing as a service model for smart cities supported by Internet of Things', '10.1002/ett.2704', (838,)), ('International Journal of Urban and Regional Research', 'The antinomies of the postpolitical city: In search of a democratic politics of environmental production', '10.1111/j.1468-2427.2009.00859.x', (799,)), ('Journal of Planning Education and Research', 'The compact city fallacy', '10.1177/0739456X04270466', (719,)), ('Cities and Climate Change: Urban Sustainability And Global Environmental Governance', 'Cities and climate change: Urban sustainability and global environmental governance', '10.4324/9780203219256', (682,)), ('Cities', 'Smart cities: A conjuncture of four forces', '10.1016/j.cities.2015.05.004', (664,)), ('Sustainable Cities and Society', 'The IoT for smart sustainable cities of the future: An analytical framework for sensor-based big data applications for environmental sustainability', '10.1016/j.scs.2017.12.034', (637,)), ('Renewable and Sustainable Energy Reviews', 'Smart Energy Europe: The technical and economic impact of one potential 100% renewable energy scenario for the European Union', '10.1016/j.rser.2016.02.025', (630,)), ('Environment and Planning D: Society and Space', 'Programming environments: Environmentality and citizen sensing in the smart city', '10.1068/d16812', (551,)), ('Sustainable Cities and Society', 'Can cities become smart without being sustainable? A systematic review of the literature', '10.1016/j.scs.2018.11.033', (551,))]

5	Land Cover	5,379	2019.78	land, urban, lst, study, use, cover, area, heat, lulc, areas	[('Technology in Society', 'Urbanization in developing countries: Current trends, future projections, and key challenges for sustainability', '10.1016/j.techsoc.2005.10.005', (1458,)), ('Remote Sensing of Environment', 'Impacts of landscape structure on surface urban heat islands: A case study of Shanghai, China', '10.1016/j.rse.2011.07.008', (1014,)), ('Applied Geography', 'Land use and land cover change in Greater Dhaka, Bangladesh: Using remote sensing to promote sustainable urbanization', '10.1016/j.apgeog.2008.12.005', (899,)), ('Ecological Economics', 'The coasts of our world: Ecological, economic and social importance', '10.1016/j.ecolecon.2006.10.022', (808,)), ('Annual Review of Fluid Mechanics', 'Flow and dispersion in urban areas', '10.1146/annurev.fluid.35.101101.161147', (807,)), ('Urban Climates', 'Urban climates', '10.1017/9781139016476', (633,)), ('ISPRS Journal of Photogrammetry and Remote Sensing', 'Characterizing the relationship between land use land cover change and land surface temperature', '10.1016/j.isprsjprs.2017.01.001', (584,)), ('International Journal of Geographical Information Science', 'Modelling sustainable urban development by the integration of constrained cellular automata and GIS', '10.1080/136588100240886', (572,)), ('Cities', 'Outdoor thermal comfort and outdoor activities: A review of research in the past decade', '10.1016/j.cities.2011.08.006', (571,)), ('Ecological Modelling', 'Modeling urban land use change by the integration of cellular automaton and Markov model', '10.1016/j.ecolmodel.2011.09.009', (535,)), ('Progress in Planning', '"The planned city sweeps the poor away...': Urban planning and 21st century urbanisation", '10.1016/j.progress.2009.06.002', (507,)), ('International Journal of Hygiene and Environmental Health', 'Global urbanization and impact on health', '10.1078/1438-4639-00223', (442,)), ('Proceedings of the National Academy of Sciences of the United States of America', 'Global urban population exposure to extreme heat', '10.1073/pnas.2024792118', (440,)), ('ISPRS Journal of Photogrammetry and Remote Sensing', 'Effects of green space spatial pattern on land surface temperature: Implications for sustainable urban planning and climate change adaptation', '10.1016/j.isprsjprs.2013.12.010', (435,)), ('International Journal of Sustainable Built Environment', 'Monitoring urban growth and land use change detection with GIS and remote sensing techniques in Daqahlia governorate Egypt', '10.1016/j.ijsbe.2015.02.005', (428,)), ('The Lancet', 'Reducing the health effects of hot weather and heat extremes: from personal cooling strategies to green cities', '10.1016/S0140-6736(21)01209-5', (421,)), ('Ocean and Coastal Management', 'Overcoming the impacts of aquaculture on the coastal zone', '10.1016/j.ocecoaman.2006.06.018', (420,)), ('Energy and Buildings', 'Comparing the effects of urban heat island mitigation strategies for Toronto, Canada', '10.1016/j.enbuild.2015.06.046', (420,)), ('Landscape and Urban Planning', 'Urban growth pattern modeling: A case study of Wuhan City, PR China', '10.1016/S0169-2046(02)00150-0', (401,)), ('Landscape and Urban Planning', 'Effect of tree planting design and tree species on human thermal comfort in the tropics', '10.1016/j.landurbplan.2015.02.008', (387,))]
6	Landscape	5,223	2019.30	urban, green, spaces, cities, planning, ecosystem, landscape, ecological, space, areas	[('Landscape and Urban Planning', "Urban green space, public health, and environmental justice: The challenge of making cities 'just green enough'", '10.1016/j.landurbplan.2014.01.017', (3195,)), ('The Lancet', 'Safeguarding human health in the Anthropocene epoch: Report of the Rockefeller Foundation-Lancet Commission on planetary health', '10.1016/S0140-6736(15)60901-1', (1946,)), ('Landscape and Urban Planning', 'The role of urban parks for the sustainable city', '10.1016/j.landurbplan.2003.08.003', (1846,)), ('Urban Forestry and Urban Greening', 'Challenges and strategies for urban green-space planning in cities undergoing densification: A review', '10.1016/j.ufug.2015.07.009', (1149,)), ('Ecology and Society', 'Nature-based solutions to climate change mitigation and adaptation in urban areas: Perspectives on indicators, knowledge gaps, barriers, and opportunities for action', '10.5751/ES-08373-210239', (1012,)), ('Health Promotion International', "Healthy nature healthy people: 'contact with nature' as an upstream health promotion intervention for populations", '10.1093/heapro/dai032', (916,)), ('Environmental Pollution', 'Urban forests and pollution mitigation: Analyzing ecosystem services and disservices', '10.1016/j.envpol.2011.01.010', (916,)), ('Landscape and Urban Planning', 'Urban ecology and sustainability: The state-of-the-science and future directions', '10.1016/j.landurbplan.2014.01.018', (805,)), ('Environmental Health Perspectives', 'Unhealthy landscapes: Policy recommendations on land use change and infectious disease emergence', '10.1289/ehp.6877', (779,)), ('Genetics Research International', 'Importance of genetic diversity assessment in crop plants and its recent advances: An overview of its analytical perspectives', '10.1155/2015/431487', (733,)), ('Science', 'Evolution of life in urban environments', '10.1126/science.aam8327', (727,)), ('Environmental Research', 'Urban natural environments as nature-based solutions for improved public health – A systematic review of reviews', '10.1016/j.envres.2017.05.040', (724,)), ('Landscape and Urban Planning', 'A complex landscape of inequity in access to urban parks: A literature review', '10.1016/j.landurbplan.2016.05.017', (671,)), ('Environmental Research Letters', 'Urban nature in a time of crisis: Recreational use of green space increases during the COVID-19 outbreak in Oslo, Norway', '10.1088/1748-9326/abb396', (646,)), ("Europe's environment: the Dobris assessment", "Europe's environment: the Dobris assessment", 'NO DOI', (601,)), ('Conservation Biology', "Delayed Sexual Maturity and Demographics of Blanding's Turtles (Emydoidea blandingii): Implications for Conservation and Management of Long-Lived Organisms", '10.1046/j.1523-1739.1993.740826.x', (584,)), ('Journal of Social Issues', 'Preference for nature in urbanized societies: Stress, restoration, and the pursuit of sustainability', '10.1111/j.1540-4560.2007.00497.x', (569,)), ('City and Society', 'Wiped out by the "Greenwave": Environmental gentrification and the paradoxical politics of urban sustainability', '10.1111/j.1548-744X.2011.01063.x', (561,)), ('Landscape Ecology', 'Supplying urban ecosystem services through multifunctional green infrastructure in the United States', '10.1007/s10980-013-9912-y', (559,)), ('Landscape Ecology', 'Urban landscape sustainability and resilience: The promise and challenges of integrating ecology with urban planning and design', '10.1007/s10980-012-9799-z', (524,))]
7	Social	5,144	2018.15	urban, heritage, social, development, cultural, regeneration, sustainability, city, sustainable, planning	[('Sustainable Development', 'The social dimension of sustainable development: Defining urban social sustainability', '10.1002/sd.417', (1357,)), ('Journal of Urban Design', 'Making a city: urbanity, vitality and urban design', '10.1080/13574809808724418', (886,)), ('Geoforum', 'What is social sustainability? A clarification of concepts', '10.1016/j.geoforum.2011.01.002', (764,)), ('Urban Studies', 'Gentrification and social mixing: Towards an inclusive urban renaissance?', '10.1177/0042098008097099', (702,)), ('How to Study Public Life', 'How to study public life', '10.5822/978-1-61091-525-0', (623,)), ('Sustainability', 'Social sustainability: A new conceptual framework', '10.3390/su9010068', (623,)), ('Urban and Regional Planning', 'Urban and regional planning', '10.4324/9780203861424', (555,)), ('Landscape and Urban Planning', 'Built cultural heritage and sustainable urban development', '10.1016/j.landurbplan.2007.05.008', (449,)), ('Issues in Cultural Tourism Studies', 'Issues in cultural tourism studies', '10.4324/9780203402825', (420,)), ('Renewable and Sustainable Energy Reviews', 'Energy efficiency and thermal comfort in historic buildings: A review', '10.1016/j.rser.2016.03.018', (378,)), ('Environment and Planning B: Planning and Design', 'Urban form and social sustainability: The role of density and housing type', '10.1068/b33129', (375,)), ('Habitat International', 'A review of recent studies on sustainable urban renewal', '10.1016/j.habitatint.2013.08.006', (369,)), ('Landscape and Urban Planning', 'Analyzing spatial relationships between urban land use intensity and urban vitality at street block level: A case study of five Chinese megacities', '10.1016/j.landurbplan.2019.103669', (349,)), ('Urban Studies', 'Domestication by Cappuccino or a revenge on urban space? Control and empowerment in the management of public spaces', '10.1080/0042098032000106627', (344,)), ('Political Geography', 'Wounded cities: Memory-work and a place-based ethics of care', '10.1016/j.polgeo.2011.10.008', (335,)), ('Habitat International', 'Implementation challenges to the adaptive reuse of heritage buildings: Towards the goals of sustainable, low carbon cities', '10.1016/j.habitatint.2011.11.001', (330,)), ('Energy Policy', 'Does demolition or refurbishment of old and inefficient homes help to increase our environmental, social and economic viability?', '10.1016/j.enpol.2008.09.022', (318,)), ('Social Indicators Research', 'Critical factors for improving social sustainability of urban renewal projects', '10.1007/s11205-007-9089-3', (294,)), ('World Development', 'Caste and development: Contemporary perspectives on a structure of discrimination and advantage', '10.1016/j.worlddev.2018.06.003', (291,)), ('Landscape and Urban Planning', 'Turning brownfields into green space in the City of Toronto', '10.1016/S0169-2046(02)00149-4', (284,))]
8	Resilience	4,502	2017.71	urban, resilience, sustainability, development, cities, sustainable, indicators, city, environmental, social	[('Ecology and Society', 'Resilience, adaptability and transformability in social-ecological systems', '10.5751/ES-00650-090205', (5308,)), ('Ecosystems', 'From Metaphor to Measurement: Resilience of What to What?', '10.1007/s10021-001-0045-9', (2638,)), ('Landscape and Urban Planning', 'From fail-safe to safe-to-fail: Sustainability and resilience in the new urban world', '10.1016/j.landurbplan.2011.02.021', (897,)), ('Nature Sustainability', 'Sustainability and resilience for transformation in the urban century', '10.1038/s41893-019-0250-1', (813,)), ('Current Opinion in Environmental Sustainability', 'Climate change and urban resilience', '10.1016/j.cosust.2010.12.014', (664,)), ('Journal of Cleaner Production', 'A scientometric review of global research on sustainability and sustainable development', '10.1016/j.jclepro.2018.02.162', (652,)), ('Landscape and Urban Planning', 'Urban environmental quality and human well-being towards a conceptual framework and demarcation of concepts; a literature study', '10.1016/S0169-2046(02)00232-3', (636,)), ('Habitat International', 'The application of urban sustainability indicators - A comparison between various practices', '10.1016/j.habitatint.2010.03.006', (574,)), ('Renewable and Sustainable Energy Reviews', 'Principles and criteria for assessing urban energy resilience: A literature review', '10.1016/j.rser.2016.03.028', (458,)), ('Ecological Indicators', 'Measuring the sustainability of cities: An analysis of the use of local indicators', '10.1016/j.ecolind.2009.07.013', (458,)), ('Cities', 'The urban sustainable development goal: Indicators, complexity and the politics of measuring cities', '10.1016/j.cities.2016.12.019', (404,)), ('The Environmentalist', 'Economic, social, and environmental sustainability in development theory and urban planning practice', '10.1023/A:1006697118620', (392,)), ('Habitat International', 'Urban form and climate change: Balancing adaptation and mitigation in the U.S. and Australia', '10.1016/j.habitatint.2008.10.005', (359,)), ('Environment and Urbanization', 'Resilience trade-offs: addressing multiple scales and temporal aspects of urban resilience', '10.1177/0956247814550780', (346,)), ('Natural Hazards Review', 'Creating hazard resilient communities through land-use planning', '10.1061/(ASCE)1527-6988(2000)1:2(99)', (342,)), ('Agronomy for Sustainable Development', 'Adaptiveness to enhance the sustainability of farming systems. A review', '10.1051/agro/2009053', (325,)), ('World Development', 'Defining a Global Urban Development Agenda', '10.1016/j.worlddev.2015.10.028', (321,)), ('Ecology and Society', 'From resilience to transformation: The adaptive cycle in two Mexican urban centers', '10.5751/ES-04038-160211', (318,)), ('Landscape and Urban Planning', "Measurement indicators and an evaluation approach for assessing urban sustainable development: A case study for China's Jining City", '10.1016/j.landurbplan.2008.10.022', (314,)), ('Journal of the American Planning Association', 'Urban sustainability reporting', '10.1080/01944369608975684', (313,))]

9	Agriculture and Food	3,579	2018.86	food, agriculture, urban, production, farming, agricultural, systems, rural, sustainability, sustainable	[('Nature', 'Global diets link environmental sustainability and human health', '10.1038/nature13959', (2580,)), ('Biological Conservation', 'Worldwide decline of the entomofauna: A review of its drivers', '10.1016/j.biocon.2019.01.020', (2463,)), ('Philosophical Transactions of the Royal Society B: Biological Sciences', 'Livestock production: Recent trends, future prospects', '10.1098/rstb.2010.0134', (1615,)), ('Frontiers in Public Health', 'Chemical Pesticides and Human Health: The Urgent Need for a New Concept in Agriculture', '10.3389/fpubh.2016.00148', (1514,)), ('Philosophical Transactions of the Royal Society B: Biological Sciences', 'Food consumption trends and drivers', '10.1098/rstb.2010.0149', (1450,)), ('International Journal of Agricultural Sustainability', 'Sustainable intensification in African agriculture', '10.3763/ijas.2010.0583', (847,)), ('The Journal of Peasant Studies', 'The agroecological revolution in Latin America: Rescuing nature, ensuring food sovereignty and empowering peasants', '10.1080/03066150.2011.582947', (788,)), ('Crop Science', 'Biofortification—a sustainable agricultural strategy for reducing micronutrient malnutrition in the global south', '10.2135/cropsci2009.09.0531', (705,)), ('Sustainability: Science, Practice, and Policy', 'Future food-production systems: Vertical farming and controlled-environment agriculture', '10.1080/15487733.2017.1394054', (659,)), ('Philosophical Transactions of the Royal Society B: Biological Sciences', 'Climate change and food security', '10.1098/rstb.2005.1745', (647,)), ('Agronomy for Sustainable Development', 'Urban agriculture in the developing world: A review', '10.1007/s13593-013-0143-z', (562,)), ('Philosophical Transactions of the Royal Society B: Biological Sciences', 'The future of the global food system', '10.1098/rstb.2010.0180', (513,)), ('Sustainability', 'Multifunctional urban agriculture for sustainable land use planning in the United States', '10.3390/su2082499', (512,)), ('Agriculture and Human Values', 'Urban agriculture of the future: An overview of sustainability aspects of food production in and on buildings', '10.1007/s10460-013-9448-4', (503,)), ('Animal', 'The roles of livestock in developing countries', '10.1017/S1751731112001954', (461,)), ('Journal of Rural Studies', 'The city in the country: Growing alternative food networks in Metropolitan areas', '10.1016/j.jrurstud.2007.10.002', (452,)), ('Trends in Food Science and Technology', 'Food safety for food security: Relationship between global megatrends and developments in food safety', '10.1016/j.tifs.2017.08.014', (446,)), ('Local Environment', "Radical, reformist, and garden-variety neoliberal: coming to terms with urban agriculture's contradictions", '10.1080/13549839.2012.752797', (443,)), ('New Phytologist', 'The molecular–physiological functions of mineral macronutrients and their consequences for deficiency symptoms in plants', '10.1111/nph.17074', (409,)), ('Science of the Total Environment, The', 'Pesticides in the urban environment: A potential threat that knocks at the door', '10.1016/j.scitotenv.2019.134612', (369,))]
10	Metabolism	2,960	2017.96	urban, energy, water, cities, metabolism, consumption, development, city, ecological, environmental	[('Proceedings of the National Academy of Sciences of the United States of America', 'Growth, innovation, scaling, and the pace of life in cities', '10.1073/pnas.0610172104', (2257,)), ('Environment and Urbanization', 'Ecological footprints and appropriated carrying capacity: What urban economics leaves out', '10.1177/095624789200400212', (2074,)), ('Science', 'The size, scale, and shape of cities', '10.1126/science.1151419', (1192,)), ('Journal of Industrial Ecology', 'The changing metabolism of cities', '10.1162/jie.2007.1107', (971,)), ('American Sociological Review', 'Footprints on the earth: The environmental consequences of modernity', '10.2307/1519769', (758,)), ('Journal of Cleaner Production', 'Towards a national circular economy indicator system in China: An evaluation and critical analysis', '10.1016/j.jclepro.2011.07.005', (701,)), ('Environmental Impact Assessment Review', 'Urban ecological footprints: Why cities cannot be sustainable - and why they are a key to sustainability', '10.1016/S0195-9255(96)00022-4', (697,)), ('Environmental Pollution', 'The study of urban metabolism and its applications to urban planning and design', '10.1016/j.envpol.2010.10.022', (670,)), ('Environment International', 'Ultrafine particles in cities', '10.1016/j.envint.2014.01.013', (565,)), ('PLoS ONE', 'Urban scaling and its deviations: Revealing the structure of wealth, innovation and crime across cities', '10.1371/journal.pone.0013541', (524,)), ('Landscape and Urban Planning', 'Sustainability and cities: Extending the metabolism model', '10.1016/S0169-2046(99)00009-2', (492,)), ('Renewable and Sustainable Energy Reviews', 'Circular economy and the construction industry: Existing trends, challenges and prospective framework for sustainable construction', '10.1016/j.rser.2020.109948', (463,)), ('Ecological Complexity', 'Quantifying sustainability: Resilience, efficiency and the return of information theory', '10.1016/j.ecocom.2008.10.005', (456,)), ('Nature Climate Change', 'Unequal household carbon footprints in China', '10.1038/nclimate3165', (448,)), ('Appetite', "Eating like there's no tomorrow: Public awareness of the environmental impact of food and reluctance to eat less meat as part of a sustainable diet", '10.1016/j.appet.2015.10.011', (433,)), ('Ambio', 'Ecosystem appropriation by cities', 'NO DOI', (416,)), ('Environmental Innovation and Societal Transitions', 'Circular Cities: Mapping Six Cities in Transition', '10.1016/j.eist.2017.03.002', (345,)), ('Journal of Industrial Ecology', 'Global material flows and resource productivity forty years of evidence', '10.1111/jiec.12626', (303,)), ('Journal of Cleaner Production', 'Sharing cities and sustainable consumption and production: towards an integrated framework', '10.1016/j.jclepro.2015.07.133', (288,)), ('Landscape and Urban Planning', 'An expanded urban metabolism method: Toward a systems approach for assessing urban energy processes and causes', '10.1016/j.landurbplan.2012.06.006', (283,))]
11	Waste	2,407	2020.09	waste, solid, management, msw, energy, recycling, environmental, municipal, generation, urban	[('Antioxidants', 'Reactive oxygen species and antioxidant defense in plants under abiotic stress: Revisiting the crucial role of a universal defense regulator', '10.3390/antiox9080681', (1994,)), ('Separation and Purification Technology', 'Recovery and recycling of lithium: A review', '10.1016/j.seppur.2016.08.031', (1435,)), ('Renewable and Sustainable Energy Reviews', 'A review on biomass as a fuel for boilers', '10.1016/j.rser.2011.02.015', (1423,)), ('International Journal of Hydrogen Energy', 'Potential importance of hydrogen as a future solution to environmental and transportation problems', '10.1016/j.ijhydene.2008.05.047', (1259,)), ('Agronomy for Sustainable Development', 'Long-term effects of organic amendments on soil fertility. A review', '10.1051/agro/2009040', (1182,)), ('Egyptian Journal of Petroleum', 'Solid waste issue: Sources, composition, disposal, recycling, and valorization', '10.1016/j.ejpe.2018.07.003', (1175,)), ('Environment International', 'A critical review of the bioavailability and impacts of heavy metals in municipal solid waste composts compared to sewage sludge', '10.1016/j.envint.2008.06.009', (790,)), ('Environmental Chemistry Letters', 'Municipal solid waste management and landfilling technologies: a review', '10.1007/s10311-020-01100-y', (756,)), ('Resources, Conservation and Recycling', 'Drivers of food waste and their implications for sustainable policy development', '10.1016/j.resconrec.2015.11.016', (741,)), ('Journal of Manufacturing Technology Management', 'Exploring Industry 4.0 technologies to enable circular economy practices in a manufacturing context: A business model proposal', '10.1108/JMTM-03-2018-0071', (724,)), ('Bioresource Technology', 'Waste biorefinery models towards sustainable circular bioeconomy: Critical review and future perspectives', '10.1016/j.biortech.2016.03.130', (693,)), ('WASTES MANAGE.', 'Recovery of metals and nonmetals from electronic waste by physical and chemical recycling processes', '10.1016/j.wasman.2016.08.004', (686,)), ('Science of the Total Environment, The', 'Soil contamination with cadmium, consequences and remediation using organic amendments', '10.1016/j.scitotenv.2017.06.030', (600,)), ('Construction and Building Materials', 'A critical review and assessment for usage of recycled aggregate as sustainable construction material', '10.1016/j.conbuildmat.2016.11.029', (591,)), ('Royal Society Open Science', 'Challenges and opportunities associated with waste management in India', '10.1098/rsos.160764', (494,)), ('Toxicology and Applied Pharmacology', 'Nanotechnology in agriculture: Opportunities, toxicological implications, and occupational risks', '10.1016/j.taap.2017.05.025', (488,)), ('Journal of Cleaner Production', 'Construction and demolition waste management contributing factors coupled with reduce, reuse, and recycle strategies for effective waste management: A review', '10.1016/j.jclepro.2020.121265', (484,)), ('Construction and Building Materials', 'Application of agro-waste for sustainable construction materials: A review', '10.1016/j.conbuildmat.2012.09.011', (482,)), ('WASTES MANAGE.', 'Municipal solid waste management challenges in developing countries - Kenyan case study', '10.1016/j.wasman.2005.03.007', (466,)), ('npj Climate and Atmospheric Science', 'Biomass waste utilisation in low-carbon products: harnessing a major potential resource', '10.1038/s41612-019-0093-5', (466,))]
12	Economic	1,876	2021.41	energy, emissions, environmental, urbanization, economic, carbon, consumption, growth, renewable, development	[('Resources Policy', 'Moving towards a sustainable environment: The dynamic linkage between natural resources, human capital, urbanization, economic growth, and ecological footprint in China', '10.1016/j.resourpol.2020.101677', (983,)), ('Sustainable Cities and Society', 'Determinants of the ecological footprint: Role of renewable energy, natural resources, and urbanization', '10.1016/j.scs.2019.101996', (934,)), ('World Development', 'Economic growth and the environment: Whose growth? whose environment?', '10.1016/0305-750X(92)90038-W', (749,)), ('Energy Economics', 'The effect of urbanization on CO emissions in emerging economies', '10.1016/j.eneco.2013.11.007', (710,)), ('Science of the Total Environment, The', 'Renewable energy, nuclear energy, and environmental pollution: Accounting for political institutional quality in South Africa', '10.1016/j.scitotenv.2018.06.320', (564,)), ('Sustainable Cities and Society', 'Impacts of urbanization on urban structures and energy demand: What can we learn for urban energy planning and urbanization management?', '10.1016/j.scs.2010.08.006', (564,)), ('Journal of Cleaner Production', 'Urbanization and industrialization impact of CO emissions in China', '10.1016/j.jclepro.2017.10.156', (528,)), ('Energy Economics', 'Modelling for insight: Does financial development improve environmental quality?', '10.1016/j.eneco.2019.06.025', (496,)), ('Journal of Cleaner Production', 'The nexus between urbanization, renewable energy, trade, and ecological footprint in ASEAN countries', '10.1016/j.jclepro.2020.122709', (491,)), ('Microorganisms for Sustainable Environment and Health', 'Environmental pollution: Causes, effects, and the remedies', '10.1016/B978-0-12-819001-2.00021-8', (421,)), ('Environmental Science and Ecotechnology', "Towards carbon neutrality and China's 14th Five-Year Plan: Clean energy transition, sustainable urban development, and investment priorities", '10.1016/j.ese.2021.100130', (412,)), ('Sustainable Cities and Society', 'Does urbanization redefine the environmental Kuznets curve? An empirical analysis of 134 Countries', '10.1016/j.scs.2021.103382', (406,)), ('Journal of Environmental Chemical Engineering', 'Bioethanol production: Feedstock and current technologies', '10.1016/j.jece.2013.10.013', (406,)), ('Sustainable Cities and Society', 'Modelling the dynamic linkages between eco-innovation, urbanization, economic growth and ecological footprints for G7 countries: Does financial globalization matter?', '10.1016/j.scs.2021.102881', (405,)), ('Renewable Energy', 'The environmental Kuznets curve, based on the economic complexity, and the pollution haven hypothesis in PIIGS countries', '10.1016/j.renene.2021.10.059', (393,)), ('Environment and Urbanization', 'Urbanization and economic growth: The arguments and evidence for Africa and Asia', '10.1177/0956247813490908', (361,)), ('Resources Policy', 'Assessing the environmental sustainability corridor: Linking natural resources, renewable energy, human capital, and ecological footprint in BRICS.', '10.1016/j.resourpol.2020.101924', (343,)), ('Sustainability', 'Issues, impacts, and mitigations of carbon dioxide emissions in the building sector', '10.3390/SU12187427', (333,)), ('Renewable and Sustainable Energy Reviews', 'Linking financial development, economic growth and energy consumption in Pakistan', '10.1016/j.rser.2014.12.015', (320,)), ('Renewable Energy', 'Clean energy consumption, economic growth, and environmental sustainability: What is the role of economic policy uncertainty?', '10.1016/j.renene.2021.12.006', (308,))]

13	Building Energy	1,773	2019.75	energy, building, urban, solar, buildings, design, consumption, renewable, cities, systems	[('Nature Reviews Earth and Environment', 'Environmental impacts and decarbonization strategies in the cement and concrete industries', '10.1038/s43017-020-0093-3', (929,)), ('Electric Power Systems Research', 'Influence of extreme weather and climate change on the resilience of power systems: Impacts and possible mitigation strategies', '10.1016/j.epsr.2015.06.012', (727,)), ('Renewable and Sustainable Energy Reviews', 'A review of data-driven approaches for prediction and classification of building energy consumption', '10.1016/j.rser.2017.09.108', (679,)), ('Science', 'City-integrated renewable energy for urban sustainability', '10.1126/science.aad9302', (568,)), ('Building and Environment', 'Ten questions on urban building energy modeling', '10.1016/j.buildenv.2019.106508', (435,)), ('Proceedings of the National Academy of Sciences of the United States of America', 'Global scenarios of urban density and its impacts on building energy use through 2050', '10.1073/pnas.1606035114', (388,)), ('Applied Energy', 'Paradigm shift in urban energy systems through distributed generation: Methods and models', '10.1016/j.apenergy.2010.10.018', (378,)), ('Energy and Buildings', 'Spatial distribution of urban building energy consumption by end use', '10.1016/j.enbuild.2011.10.061', (374,)), ('Applied Energy', 'Automatic generation and simulation of urban building energy models based on city datasets for city-scale building retrofit analysis', '10.1016/j.apenergy.2017.07.128', (344,)), ('Proceedings of BS 2013: 13th Conference of the International Building Performance Simulation Association', 'UMI - An urban simulation environment for building energy use, daylighting and walkability', 'NO DOI', (309,)), ('IBPSA 2009 - International Building Performance Simulation Association 2009', 'Citysim: Comprehensive micro-simulation of resource flows for sustainable urban planning', 'NO DOI', (287,)), ('Sustainable Cities and Society', 'Urban building energy modeling (UBEM) tools: A state-of-the-art review of bottom-up physics-based approaches', '10.1016/j.scs.2020.102408', (283,)), ('Applied Energy', 'Feasibility analysis of a Darrieus vertical-axis wind turbine installation in the rooftop of a building', '10.1016/j.apenergy.2011.12.008', (276,)), ('Renewable and Sustainable Energy Reviews', 'Towards the next generation of smart grids: Semantic and holonic multi-agent management of distributed energy resources', '10.1016/j.rser.2017.03.107', (251,)), ('Applied Energy', 'A data-driven predictive model of city-scale energy use in buildings', '10.1016/j.apenergy.2017.04.005', (244,)), ('Energy Strategy Reviews', 'The Open Energy Modelling Framework (oemof) - A new approach to facilitate open science in energy system modelling', '10.1016/j.esr.2018.07.001', (239,)), ('Energy', 'Forecasting energy consumption time series using machine learning techniques based on usage patterns of residential householders', '10.1016/j.energy.2018.09.144', (238,)), ('Energy and Buildings', 'Review of urban building energy modeling (UBEM) approaches, methods and tools using qualitative and quantitative analysis', '10.1016/j.enbuild.2021.111073', (230,)), ('Renewable and Sustainable Energy Reviews', 'Advances in wind energy resource exploitation in urban environment: A review', '10.1016/j.rser.2014.05.053', (225,)), ('Solar Energy', 'Quantifying rooftop photovoltaic solar energy potential: A machine learning approach', '10.1016/j.solener.2016.11.045', (222,))]
14	Forest	1,638	2015.48	forest, species, disturbance, forests, management, soil, tree, ecosystem, disturbances, logging	[('Annual Review of Ecology, Evolution, and Systematics', "The structure, distribution, and biomass of the world's forests", '10.1146/annurev-ecolsys-110512-135914', (793,)), ('Science', 'Temperate forest health in an era of emerging megadisturbance', '10.1126/science.aaa9933', (784,)), ('Forest Ecology and Management', 'Biodiversity, disturbances, ecosystem function and management of european forests', '10.1016/S0378-1127(00)00378-9', (717,)), ('Proceedings of the National Academy of Sciences of the United States of America', 'Adapt tomore wildfire in western North American forests as climate changes', '10.1073/pnas.1617464114', (626,)), ('Biological Reviews', 'Natural disturbance impacts on ecosystem services and biodiversity in temperate and boreal forests', '10.1111/brv.12193', (623,)), ('Biological Conservation', 'General management principles and a checklist of strategies to guide forest biodiversity conservation', '10.1016/j.biocon.2006.02.019', (565,)), ('Agriculture, Ecosystems and Environment', 'Enhancing sustainability of grassland ecosystems through ecological restoration and grazing management in an era of climate change on Qinghai-Tibetan Plateau', '10.1016/j.agee.2019.106684', (543,)), ('Ambio', 'Reserves, Resilience and Dynamic Landscapes', '10.1579/0044-7447-32.6.389', (542,)), ('Biological Control', 'Conservation biological control and enemy diversity on a landscape scale', '10.1016/j.biocontrol.2007.08.006', (541,)), ('Ecology Letters', 'A checklist for ecological management of landscapes for conservation', '10.1111/j.1461-0248.2007.01114.x', (531,)), ('Nature Climate Change', 'Pervasive transition of the Brazilian land-use system', '10.1038/nclimate2056', (441,)), ('World Development', 'Poverty alleviation and tropical forests-what scope for synergies?', '10.1016/S0305-750X(01)00070-5', (409,)), ('Silva Fennica', 'Natural fire regime: A guide for sustainable management of the Canadian boreal forest', '10.14214/sf.553', (398,)), ('Restoration Ecology', 'Restoration and Rehabilitation of Degraded Ecosystems in Arid and Semi-Arid Lands. I. A View from the South', '10.1111/j.1526-100X.1993.tb00004.x', (389,)), ('Animal Conservation', 'The plateau pika (Ochotona curzoniae) is a keystone species for biodiversity on the Tibetan plateau', '10.1017/S1367943099000566', (383,)), ('Biodiversity and Conservation', 'Bushmeat hunting in the Congo Basin: An assessment of impacts and options for mitigation', '10.1023/A:1008877309871', (357,)), ('Ecological Modelling', 'Modelling natural disturbances in forest ecosystems: A review', '10.1016/j.ecolmodel.2010.09.040', (355,)), ('Ecological Indicators', 'The use of ground beetles (Coleoptera: Carabidae) and spiders (Araneae) as bioindicators of sustainable forest management: A review', '10.1016/j.ecolind.2005.03.005', (349,)), ('Journal of Vegetation Science', 'Maintaining and restoring biodiversity in European boreal forests by developing natural disturbance regimes', '10.2307/3237275', (347,)), ('Environmental Reviews', 'Dynamics of North American boreal mixedwoods', '10.1139/a02-007', (341,))]
15	Governance	1,573	2018.57	urban, sustainability, governance, cities, transitions, research, development, energy, transition, city	[('The Lancet', 'Managing the health effects of climate change. Lancet and University College London Institute for Global Health Commission', '10.1016/S0140-6736(09)60935-1', (2236,)), ('The Lancet', 'Changing the future of obesity: Science, policy, and action', '10.1016/S0140-6736(11)60815-5', (739,)), ('Journal of Cleaner Production', 'Urban Transition Labs: Co-creating transformative action for sustainable cities', '10.1016/j.jclepro.2012.12.001', (530,)), ('Progress in Human Geography', 'Socio-technical regimes and sustainability transitions: Insights from political ecology', '10.1177/0309132511427960', (510,)), ('Journal of Cleaner Production', 'Urban living labs for sustainability and low carbon cities in Europe: Towards a research agenda', '10.1016/j.jclepro.2015.08.053', (477,)), ('Environmental Politics', 'Revisiting the urban politics of climate change', '10.1080/09644016.2013.755797', (463,)), ('Current Opinion in Environmental Sustainability', 'Transformations to sustainability: combining structural, systemic and enabling approaches', '10.1016/j.cosust.2019.12.004', (461,)), ('Ethnography', 'Infrastructural violence: Introduction to the special issue', '10.1177/1466138111435738', (413,)), ('Journal of Cleaner Production', 'Advancing sustainable urban transformation', '10.1016/j.jclepro.2013.01.003', (369,)), ('City Futures: Confronting the Crisis of Urban Development', 'City futures: Confronting the crisis of urban development', 'NO DOI', (354,)), ('Journal of Cleaner Production', 'A systematic review of living lab literature', '10.1016/j.jclepro.2018.12.257', (349,)), ('Environment and Planning A', 'Conceptualizing the political ecology of urban infrastructures: Insights from technology and urban studies', '10.1068/a4145', (320,)), ('Current Opinion in Environmental Sustainability', 'Urban living labs: governing urban sustainability transitions', '10.1016/j.cosust.2017.02.003', (315,)), ('Technological Forecasting and Social Change', 'The interplay of institutions, actors and technologies in socio-technical systems - An analysis of transformations in the Australian urban water sector', '10.1016/j.techfore.2015.11.023', (308,)), ('Sustainability Science', 'From complex systems analysis to transformational change: A comparative appraisal of sustainability science projects', '10.1007/s11625-011-0148-y', (306,)), ('European Planning Studies', 'Impacts of urban living labs on sustainability transitions: mechanisms and strategies for systemic change through experimentation', '10.1080/09654313.2018.1504895', (291,)), ('International Journal of Sustainability in Higher Education', 'Transdisciplinary case studies as a means of sustainability learning: Historical framework and theory', '10.1108/14676370610677829', (285,)), ('Journal of Urban Health', 'Challenges and facilitating factors in sustaining community-based participatory research partnerships: Lessons learned from the Detroit, New York City and Seattle Urban Research Centers', '10.1007/s11524-006-9110-1', (278,)), ('International Journal of Urban and Regional Research', "'Give Me a Laboratory and I Will Lower Your Carbon Footprint!' - Urban Laboratories and the Governance of Low-Carbon Futures", '10.1111/1468-2427.12077', (271,)), ('Developing China: Land, Politics and Social Conditions', 'Developing China: Land, politics and social conditions', '10.4324/9780203878934', (271,))]
16	Soil	1,320	2017.92	soil, land, urban, soils, tillage, crop, ca, use, agricultural, water	[('Philosophical Transactions of the Royal Society B: Biological Sciences', 'The role of conservation agriculture in sustainable agriculture', '10.1098/rstb.2007.2169', (1187,)), ('Landscape and Urban Planning', 'Why landscapes of the past are important for the future', '10.1016/j.landurbplan.2003.10.002', (1119,)), ('Earth-Science Reviews', 'Mediterranean water resources in a global change scenario', '10.1016/j.earscirev.2011.01.006', (818,)), ('Global Change Biology', 'Global change pressures on soils from land use and management', '10.1111/gcb.13068', (782,)), ('Environmental Geochemistry and Health', 'Pollution indices as useful tools for the comprehensive evaluation of the degree of soil contamination–A review', '10.1007/s10653-018-0106-z', (767,)), ('Agriculture, Ecosystems and Environment', 'Soil biodiversity for agricultural sustainability', '10.1016/j.agee.2006.12.013', (740,)), ('International Soil and Water Conservation Research', 'Conservation tillage impacts on soil, crop and the environment', '10.1016/j.iswcr.2015.05.002', (611,)), ('Geoderma', 'Past, present and future of soil quality indices: A biological perspective', '10.1016/j.geoderma.2008.08.007', (589,)), ('Journal of Agricultural Economics', 'Adoption of multiple sustainable agricultural practices in rural Ethiopia', '10.1111/1477-9552.12011', (559,)), ('Journal of Energy Storage', 'Battery energy-storage system: A review of technologies, optimization objectives, constraints, approaches, and outstanding issues', '10.1016/j.est.2021.103023', (513,)), ('The Journal of Agricultural Science', 'Paper Presented at International Workshop on Increasing Wheat Yield Potential, CIMMYT, Obregon, Mexico, 20-24 March 2006. Conservation agriculture: What is it and why is it important for future sustainable food production?', '10.1017/S0021859607006892', (466,)), ('Soil and Tillage Research', 'Evolution of the plow over 10,000 years and the rationale for no-till farming', '10.1016/j.still.2006.11.004', (453,)), ('Chemosphere', 'Pollution assessment of heavy metals in soils of India and ecological risk assessment: A state-of-the-art', '10.1016/j.chemosphere.2018.10.066', (453,)), ('Nutrient Cycling in Agroecosystems', 'Land use change and soil organic carbon dynamics', '10.1007/s10705-007-9138-y', (426,)), ('Canadian Journal of Soil Science', 'The role of organic amendments in soil reclamation: A review', '10.4141/CJSS2010-064', (415,)), ('Journal of Archaeological Science', 'Airborne LiDAR, archaeology, and the ancient Maya landscape at Caracol, Belize', '10.1016/j.jas.2010.09.018', (383,)), ('Land Use Policy', 'The relevance of sustainable soil management within the European Green Deal', '10.1016/j.landusepol.2020.104950', (371,)), ('Agriculture, Ecosystems and Environment', 'The role of earthworms for assessment of sustainability and as bioindicators', '10.1016/S0167-8809(99)00034-1', (356,)), ('Landscape and Urban Planning', 'Trends in European cultural landscape development: Perspectives for a sustainable future', '10.1016/S0169-2046(99)00043-2', (352,)), ('International Journal of Molecular Sciences', 'Rhizosphere bacteria in plant growth promotion, biocontrol, and bioremediation of contaminated sites: A comprehensive review of effects and mechanisms', '10.3390/ijms221910529', (352,))]

17	Logistics	1,306	2020.03	logistics, freight, transport, delivery, urban, vehicles, city, mile, traffic, transportation	[('Annals of Operations Research', 'Viable supply chain model: integrating agility, resilience and sustainability perspectives—lessons from and thinking beyond the COVID-19 pandemic', '10.1007/s10479-020-03640-6', (725,)), ('IEEE Transactions on Intelligent Transportation Systems', 'Parallel Transportation Systems: Toward IoT-Enabled Smart Urban Traffic Control and Management', '10.1109/TITS.2019.2934991', (334,)), ('European Journal of Operational Research', 'Collaborative urban transportation: Recent advances in theory and practice', '10.1016/j.ejor.2018.04.037', (288,)), ('Expert Systems with Applications', 'A novel hybrid MCDM model based on fuzzy DEMATEL, fuzzy ANP and fuzzy VIKOR for city logistics concept selection', '10.1016/j.eswa.2014.07.021', (275,)), ('Mathematical and Computer Modelling', 'A multi-criteria decision making approach for location planning for urban distribution centers under uncertainty', '10.1016/j.mcm.2010.07.023', (272,)), ('Journal of Transport Geography', "Urban logistics - How can it meet policy makers' sustainability objectives?", '10.1016/j.jtrangeo.2004.11.002', (267,)), ('European Transport Research Review', 'Crowd logistics: an opportunity for more sustainable urban freight transport?', '10.1007/s12544-017-0256-6', (243,)), ('Transport Reviews', 'The Role of Urban Consolidation Centres in Sustainable Freight Transport', '10.1080/01441647.2012.688074', (232,)), ('Transportation Research Part D: Transport and Environment', 'Location selection of city logistics centers under sustainability', '10.1016/j.trd.2015.02.008', (230,)), ('Transportation Research Part B', 'The electric vehicle routing problem with energy consumption uncertainty', '10.1016/j.trb.2019.06.006', (224,)), ('International Journal of Physical Distribution & Logistics Management', 'Research in urban logistics: a systematic literature review', '10.1108/IJPDLM-01-2016-0008', (220,)), ('Research in Transportation Business and Management', 'Sustainable city logistics - Making cargo cycles viable for urban freight transport', '10.1016/j.rtbm.2015.02.001', (216,)), ('Applied Mathematical Modelling', 'A hybrid approach integrating Affinity Diagram, AHP and fuzzy TOPSIS for sustainable city logistics planning', '10.1016/j.apm.2011.07.033', (203,)), ('Journal of Transport Geography', 'Stakeholder reactions to urban freight policy innovation', '10.1016/j.jtrangeo.2011.11.017', (185,)), ('Transportation Research Part D: Transport and Environment', 'Evaluating the environmental impacts of online shopping: A behavioral and transportation approach', '10.1016/j.trd.2020.102223', (184,)), ('Journal of Transport Geography', 'Challenges in urban freight transport planning - a review in the Baltic Sea Region', '10.1016/j.jtrangeo.2012.01.001', (181,)), ('Transportation Research Part B', 'Planning and operating a shared goods and passengers on-demand rapid transit system for sustainable city-logistics', '10.1016/j.trb.2015.07.016', (178,)), ('Transportation Research Procedia', 'Physical Internet Enabled Hyperconnected City Logistics', '10.1016/j.trpro.2016.02.074', (175,)), ('Transportation Research Part C', 'Parcel delivery in urban areas: Opportunities and threats for the mix of traditional and green business models', '10.1016/j.trc.2019.01.006', (170,)), ('Renewable and Sustainable Energy Reviews', 'Identification and analysis of barriers in implementation of solar energy in Indian rural sector using integrated ISM and fuzzy MICMAC approach', '10.1016/j.rser.2016.04.033', (170,))]
18	Greening	1,020	2019.97	green, roofs, roof, energy, urban, building, buildings, thermal, water, environmental	[('Applied Energy', 'State-of-the-art analysis of the environmental benefits of green roofs', '10.1016/j.apenergy.2013.10.047', (641,)), ('Renewable and Sustainable Energy Reviews', 'Green roof benefits, opportunities and challenges – A review', '10.1016/j.rser.2018.04.006', (583,)), ('HortScience', 'The role of extensive green roofs in sustainable development', '10.21273/hortsci.41.5.1276', (571,)), ('Renewable and Sustainable Energy Reviews', 'Green wall systems: A review of their characteristics', '10.1016/j.rser.2014.07.203', (509,)), ('Renewable and Sustainable Energy Reviews', 'Green roofs and facades: A comprehensive review', '10.1016/j.rser.2017.09.106', (483,)), ('Renewable and Sustainable Energy Reviews', 'Green roof and green wall benefits and costs: A review of the quantitative evidence', '10.1016/j.rser.2020.110111', (357,)), ('Metals', 'Photocatalytic applications of metal oxides for sustainable environmental remediation', '10.3390/met11010080', (348,)), ('Building and Environment', 'Cost-benefit analysis for green façades and living wall systems', '10.1016/j.buildenv.2013.08.012', (320,)), ('Energy and Buildings', 'Comparative life cycle analysis for green façades and living wall systems', '10.1016/j.enbuild.2011.09.010', (279,)), ('Journal of Hazardous Materials', 'Antimony bioavailability: Knowledge and research perspectives for sustainable agricultures', '10.1016/j.jhazmat.2015.02.011', (272,)), ('Environmental Science and Technology', 'Copper Oxide Nanoparticle Foliar Uptake, Phytotoxicity, and Consequences for Sustainable Urban Agriculture', '10.1021/acs.est.6b05546', (247,)), ('Reviews of Environmental Contamination and Toxicology', 'A global perspective of fine particulate matter pollution and its health effects', '10.1007/398_2017_3', (236,)), ('Land Use Policy', 'Green infrastructure and public policies: An international review of green roofs and green walls incentives', '10.1016/j.landusepol.2020.104693', (225,)), ('Environmental Research Letters', 'Green and cool roofs to mitigate urban heat island effects in the Chicago metropolitan area: Evaluation with a regional climate model', '10.1088/1748-9326/11/6/064004', (222,)), ('Building and Environment', 'Assessing practical measures to reduce urban heat: Green and cool roofs', '10.1016/j.buildenv.2013.08.021', (220,)), ('Building and Environment', 'Modeling impacts of roof reflectivity, integrated photovoltaic panels and green roof systems on sensible heat flux into the urban environment', '10.1016/j.buildenv.2011.06.012', (214,)), ('Energies', 'Green-roof effects on neighborhood microclimate and human thermal sensation', '10.3390/en6020598', (199,)), ('Urban Forestry and Urban Greening', 'An overview of carbon sequestration of green roofs in urban areas', '10.1016/j.ufug.2019.126515', (176,)), ('Urban Forestry and Urban Greening', 'Benefits of green roofs: A systematic review of the evidence for three ecosystem services', '10.1016/j.ufug.2017.10.015', (176,)), ('Renewable and Sustainable Energy Reviews', 'Microalgae: Prospects for greener future buildings', '10.1016/j.rser.2017.08.032', (155,))]
19	Tourism	739	2018.64	tourism, urban, tourist, development, mangrove, tourists, rural, destinations, destination, sustainable	[('Environmental Conservation', "Present state and future of the world's mangrove forests", '10.1017/S0376892902000231', (1554,)), ('Advances in Marine Biology', 'Biology of mangroves and mangrove ecosystems', '10.1016/S0065-2881(01)40003-4', (1371,)), ('Sustainability', 'Cultural heritage and urban tourism: Historic city centres under pressure', '10.3390/su9081346', (306,)), ('Journal of Sustainable Tourism', 'Sustainable urban tourism: understanding and developing visitor pro-environmental behaviours', '10.1080/09669582.2014.912219', (306,)), ('International Journal of Contemporary Hospitality Management', 'A network perspective on managing stakeholders for sustainable urban tourism', '10.1108/09596110810873543', (283,)), ('British Journal of Social Psychology', 'Integrating social identity theory and the theory of planned behaviour to explain decisions to engage in sustainable agricultural practices', '10.1348/014466607X206792', (264,)), ('Overtourism: Issues, realities and solutions', 'Overtourism: Issues, realities and solutions', '10.1515/9783110607369', (242,)), ('Annals of Tourism Research', 'Local economic impacts of dragon tourism in Indonesia', '10.1016/S0160-7383(99)00088-2', (241,)), ('Estuarine, Coastal and Shelf Science', 'Biophysical controls on accretion and elevation change in Caribbean mangrove ecosystems', '10.1016/j.ecss.2010.05.001', (236,)), ('Ambio', 'The growing need for sustainable ecological management of marine communities of the Persian Gulf', '10.1007/s13280-010-0092-6', (232,)), ('Tourism Geographies', 'Understanding community attitudes towards tourism and host-guest interaction in the urban - Rural border region', '10.1080/14616680600585455', (209,)), ('Water Research', 'Disturbance-induced phytoplankton regime shifts and recovery of cyanobacteria dominance in two subtropical reservoirs', '10.1016/j.watres.2017.04.062', (206,)), ('Sustainable Development', 'Sustainable tourism development: How do destination stakeholders perceive sustainable urban tourism?', '10.1002/sd.384', (185,)), ('City', 'The environmental costs of coastal urbanization in the Arabian Gulf', '10.1080/13604813.2014.962889', (173,)), ('Forest Ecology and Management', 'Mangroves of China: A brief review', '10.1016/S0378-1127(97)00054-6', (153,)), ('Aquatic Botany', 'Advances and limitations of individual-based models to analyze and predict dynamics of mangrove forests: A review', '10.1016/j.aquabot.2007.12.015', (146,)), ('Environmental Science and Pollution Research', 'Algae community and trophic state of subtropical reservoirs in southeast Fujian, China', '10.1007/s11356-011-0683-1', (143,)), ('Estuarine, Coastal and Shelf Science', 'Vulnerability assessment of the impact of sea-level rise and flooding on the Moroccan coast: The case of the Mediterranean eastern zone', '10.1016/j.ecss.2007.09.024', (140,)), ('Tourism Management', 'Evaluating the relaxation effects of emerging forest-therapy tourism: A multidisciplinary approach', '10.1016/j.tourman.2017.04.010', (140,)), ('Journal of Sustainable Tourism', 'The effects of environmental and luxury beliefs on intention to patronize green hotels: the moderating effect of destination image', '10.1080/09669582.2015.1091467', (137,))]

S2 Details of all the journals in the top 20 most cited papers in each cluster

#	Journal name	Frequency percentage (n)
1	Landscape and Urban Planning	4.5%(17)
2	Renewable and Sustainable Energy Reviews	3.9%(15)
3	Journal of Cleaner Production	3.2%(12)
4	Sustainable Cities and Society	2.6%(10)
5	Proceedings of the National Academy of Sciences of the United States of America	2.4%(9)
6	Science	1.6%(6)
7	Science of the Total Environment	1.6%(6)
8	Applied Energy	1.3%(5)
9	Building and Environment	1.3%(5)
10	Cities	1.3%(5)
11	Habitat International	1.3%(5)
12	Land Use Policy	1.3%(5)
13	Philosophical Transactions of the Royal Society B: Biological Sciences	1.3%(5)
14	Sustainability	1.3%(5)
15	The Lancet	1.3%(5)
16	Energy and Buildings	1.1%(4)
17	Transport Policy	1.1%(4)
18	World Development	1.1%(4)
19	Agriculture, Ecosystems and Environment	0.8%(3)
20	Agronomy for Sustainable Development	0.8%(3)
21	Ambio	0.8%(3)
22	Current Opinion in Environmental Sustainability	0.8%(3)
23	Ecology and Society	0.8%(3)
24	Environment and Urbanization	0.8%(3)
25	Journal of Transport Geography	0.8%(3)
26	Landscape Ecology	0.8%(3)
27	Nature	0.8%(3)
28	Nature Sustainability	0.8%(3)
29	Urban Forestry and Urban Greening	0.8%(3)
30	Water Research	0.8%(3)
31	Biological Conservation	0.5%(2)
32	Construction and Building Materials	0.5%(2)
33	Earth-Science Reviews	0.5%(2)
34	Ecological Indicators	0.5%(2)
35	Ecological Modelling	0.5%(2)
36	Energy Economics	0.5%(2)
37	Environment International	0.5%(2)
38	Environmental Politics	0.5%(2)
39	Environmental Pollution	0.5%(2)
40	Environmental Research Letters	0.5%(2)
41	Estuarine, Coastal and Shelf Science	0.5%(2)
42	Forest Ecology and Management	0.5%(2)
43	International Journal of Hydrogen Energy	0.5%(2)
44	International Journal of Sustainable Transportation	0.5%(2)
45	International Journal of Urban and Regional Research	0.5%(2)
46	ISPRS Journal of Photogrammetry and Remote Sensing	0.5%(2)
47	Journal of Hydrology	0.5%(2)
48	Journal of Industrial Ecology	0.5%(2)
49	Journal of Planning Education and Research	0.5%(2)
50	Journal of Rural Studies	0.5%(2)
51	Journal of Sustainable Tourism	0.5%(2)
52	Journal of the American Planning Association	0.5%(2)
53	Nature Climate Change	0.5%(2)
54	Renewable Energy	0.5%(2)
55	Research in Transportation Business and Management	0.5%(2)
56	Resources Policy	0.5%(2)
57	Sustainable Development	0.5%(2)
58	Transportation Research Part B	0.5%(2)

59	Transportation Research Part C	0.5%(2)
60	Transportation Research Part D: Transport and Environment	0.5%(2)
61	Urban Studies	0.5%(2)
62	WASTES MANAGE.	0.5%(2)
63	Advances in Marine Biology	0.3%(1)
64	Agriculture and Human Values	0.3%(1)
65	American Sociological Review	0.3%(1)
66	Animal	0.3%(1)
67	Animal Conservation	0.3%(1)
68	Annals of Operations Research	0.3%(1)
69	Annals of Tourism Research	0.3%(1)
70	Annual Review of Ecology, Evolution, and Systematics	0.3%(1)
71	Annual Review of Environment and Resources	0.3%(1)
72	Annual Review of Fluid Mechanics	0.3%(1)
73	Antioxidants	0.3%(1)
74	Appetite	0.3%(1)
75	Applied Geography	0.3%(1)
76	Applied Mathematical Modelling	0.3%(1)
77	Aquatic Botany	0.3%(1)
78	Biodiversity and Conservation	0.3%(1)
79	Biological Control	0.3%(1)
80	Biological Reviews	0.3%(1)
81	Bioresource Technology	0.3%(1)
82	British Journal of Social Psychology	0.3%(1)
83	Canadian Journal of Soil Science	0.3%(1)
84	Capitalism with Chinese Characteristics: Entrepreneurship and the State	0.3%(1)
85	Chemosphere	0.3%(1)
86	Cities and Climate Change: Urban Sustainability And Global Environmental Governance	0.3%(1)
87	City	0.3%(1)
88	City and Society	0.3%(1)
89	City Futures: Confronting the Crisis of Urban Development	0.3%(1)
90	Computer-Aided Civil and Infrastructure Engineering	0.3%(1)
91	Conservation Biology	0.3%(1)
92	Crop Science	0.3%(1)
93	Developing China: Land, Politics and Social Conditions	0.3%(1)
94	Ecological Applications	0.3%(1)
95	Ecological Complexity	0.3%(1)
96	Ecological Economics	0.3%(1)
97	Ecology Letters	0.3%(1)
98	Ecosystems	0.3%(1)
99	Egyptian Journal of Petroleum	0.3%(1)
100	Electric Power Systems Research	0.3%(1)
101	Energies	0.3%(1)
102	Energy	0.3%(1)
103	Energy Conversion and Management	0.3%(1)
104	Energy Policy	0.3%(1)
105	Energy Strategy Reviews	0.3%(1)
106	Environment and Planning A	0.3%(1)
107	Environment and Planning B: Planning and Design	0.3%(1)
108	Environment and Planning D: Society and Space	0.3%(1)
109	Environmental Chemistry Letters	0.3%(1)
110	Environmental Conservation	0.3%(1)
111	Environmental Geochemistry and Health	0.3%(1)
112	Environmental Health Perspectives	0.3%(1)
113	Environmental Impact Assessment Review	0.3%(1)
114	Environmental Innovation and Societal Transitions	0.3%(1)
115	Environmental Management	0.3%(1)
116	Environmental Research	0.3%(1)
117	Environmental Reviews	0.3%(1)
118	Environmental Science and Ecotechnology	0.3%(1)
119	Environmental Science and Pollution Research	0.3%(1)
120	Environmental Science and Technology	0.3%(1)
121	Ethnography	0.3%(1)

122	Europe's environment: the Dobris assessment	0.3%(1)
123	European Journal of Operational Research	0.3%(1)
124	European Planning Studies	0.3%(1)
125	European Transactions on Telecommunications	0.3%(1)
126	European Transport Research Review	0.3%(1)
127	Expert Systems with Applications	0.3%(1)
128	Freshwater Biology	0.3%(1)
129	Frontiers in Public Health	0.3%(1)
130	Genetics Research International	0.3%(1)
131	Geoderma	0.3%(1)
132	Geoforum	0.3%(1)
133	GeoJournal	0.3%(1)
134	Global Change Biology	0.3%(1)
135	Health Promotion International	0.3%(1)
136	HortScience	0.3%(1)
137	How to Study Public Life	0.3%(1)
138	IBPSA 2009 - International Building Performance Simulation Association 2009	0.3%(1)
139	IEEE Transactions on Intelligent Transportation Systems	0.3%(1)
140	International Journal of Agricultural Sustainability	0.3%(1)
141	International Journal of Contemporary Hospitality Management	0.3%(1)
142	International Journal of Environmental Science and Technology	0.3%(1)
143	International Journal of Geographical Information Science	0.3%(1)
144	International Journal of Hygiene and Environmental Health	0.3%(1)
145	International Journal of Molecular Sciences	0.3%(1)
146	International Journal of Physical Distribution & Logistics Management	0.3%(1)
147	International Journal of Robotics Research	0.3%(1)
148	International Journal of Sustainability in Higher Education	0.3%(1)
149	International Journal of Sustainable Built Environment	0.3%(1)
150	International Soil and Water Conservation Research	0.3%(1)
151	Issues in Cultural Tourism Studies	0.3%(1)
152	Journal of Agricultural Economics	0.3%(1)
153	Journal of Archaeological Science	0.3%(1)
154	Journal of Energy Storage	0.3%(1)
155	Journal of Environmental Chemical Engineering	0.3%(1)
156	Journal of Environmental Management	0.3%(1)
157	Journal of Hazardous Materials	0.3%(1)
158	Journal of Manufacturing Technology Management	0.3%(1)
159	Journal of Social Issues	0.3%(1)
160	Journal of Urban Design	0.3%(1)
161	Journal of Urban Health	0.3%(1)
162	Journal of Urban Technology	0.3%(1)
163	Journal of Vegetation Science	0.3%(1)
164	Landscape Online	0.3%(1)
165	Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)	0.3%(1)
166	Local Environment	0.3%(1)
167	Marine Pollution Bulletin	0.3%(1)
168	Mathematical and Computer Modelling	0.3%(1)
169	Metals	0.3%(1)
170	Microorganisms for Sustainable Environment and Health	0.3%(1)
171	Natural Hazards Review	0.3%(1)
172	Nature Reviews Earth and Environment	0.3%(1)
173	New Phytologist	0.3%(1)
174	npj Climate and Atmospheric Science	0.3%(1)
175	Nutrient Cycling in Agroecosystems	0.3%(1)
176	Ocean and Coastal Management	0.3%(1)
177	Overtourism: Issues, realities and solutions	0.3%(1)
178	PLoS ONE	0.3%(1)
179	Political Geography	0.3%(1)
180	Proceedings of BS 2013: 13th Conference of the International Building Performance Simulation Association	0.3%(1)
181	Progress in Human Geography	0.3%(1)
182	Progress in Planning	0.3%(1)

183	Remote Sensing of Environment	0.3%(1)
184	Resources, Conservation and Recycling	0.3%(1)
185	Restoration Ecology	0.3%(1)
186	Reviews of Environmental Contamination and Toxicology	0.3%(1)
187	Royal Society Open Science	0.3%(1)
188	Separation and Purification Technology	0.3%(1)
189	Silva Fennica	0.3%(1)
190	Smart Cities	0.3%(1)
191	Social Indicators Research	0.3%(1)
192	Soil and Tillage Research	0.3%(1)
193	Solar Energy	0.3%(1)
194	Sustainability Science	0.3%(1)
195	Sustainability: Science, Practice, and Policy	0.3%(1)
196	Technological Forecasting and Social Change	0.3%(1)
197	Technology in Society	0.3%(1)
198	The Environmentalist	0.3%(1)
199	The Journal of Agricultural Science	0.3%(1)
200	The Journal of Peasant Studies	0.3%(1)
201	The Lancet Planetary Health	0.3%(1)
202	The Lancet. Child & adolescent health	0.3%(1)
203	Tourism Geographies	0.3%(1)
204	Tourism Management	0.3%(1)
205	Toxicology and Applied Pharmacology	0.3%(1)
206	Transport Reviews	0.3%(1)
207	Transportation Research Procedia	0.3%(1)
208	Trends in Food Science and Technology	0.3%(1)
209	Unsustainable Transport: City Transport in the New Century	0.3%(1)
210	Urban and Regional Planning	0.3%(1)
211	Urban Climates	0.3%(1)
212	Urban Design International	0.3%(1)
213	Water (Switzerland)	0.3%(1)
214	Water Resources Research	0.3%(1)
215	Water Science and Technology	0.3%(1)

S3 Details of frequency percentage based on ASJC detailed category in the top 20 most cited papers in each cluster

#	ASJC detailed category	Frequency percentage (n)
1	3305 Geography, Planning and Development	7.3%(72)
2	2105 Renewable Energy, Sustainability and the Environment	6.0%(59)
3	2303 Ecology	5.0%(50)
4	2309 Nature and Landscape Conservation	4.6%(46)
5	2308 Management, Monitoring, Policy and Law	4.3%(43)
6	2205 Civil and Structural Engineering	3.8%(38)
7	2300 Environmental Science(all)	3.6%(36)
8	3322 Urban Studies	3.2%(32)
9	3313 Transportation	2.9%(29)
10	2305 Environmental Engineering	2.7%(27)
11	3312 Sociology and Political Science	2.3%(23)
12	3303 Development	2.1%(21)
13	2310 Pollution	2.0%(20)
14	1000 General	2.0%(20)
15	2700 Medicine(all)	1.9%(19)
16	2304 Environmental Chemistry	1.8%(18)
17	1408 Strategy and Management	1.7%(17)
18	2215 Building and Construction	1.7%(17)
19	2311 Waste Management and Disposal	1.6%(16)
20	2002 Economics and Econometrics	1.4%(14)
21	1107 Forestry	1.4%(14)
22	1409 Tourism, Leisure and Hospitality Management	1.4%(14)
23	2209 Industrial and Manufacturing Engineering	1.4%(14)
24	1102 Agronomy and Crop Science	1.3%(13)
25	2210 Mechanical Engineering	1.3%(13)
26	2301 Environmental Science (miscellaneous)	1.2%(12)
27	1105 Ecology, Evolution, Behavior and Systematics	1.2%(12)
28	2312 Water Science and Technology	1.1%(11)
29	2208 Electrical and Electronic Engineering	0.9%(9)
30	2100 Energy(all)	0.9%(9)
31	3300 Social Sciences(all)	0.9%(9)
32	1111 Soil Science	0.9%(9)
33	2739 Public Health, Environmental and Occupational Health	0.9%(9)
34	1100 Agricultural and Biological Sciences(all)	0.8%(8)
35	1104 Aquatic Science	0.8%(8)
36	2302 Ecological Modelling	0.8%(8)
37	2307 Health, Toxicology and Mutagenesis	0.8%(8)
38	1706 Computer Science Applications	0.8%(8)
39	1300 Biochemistry, Genetics and Molecular Biology(all)	0.7%(7)
40	2102 Energy Engineering and Power Technology	0.7%(7)
41	1803 Management Science and Operations Research	0.6%(6)
42	2306 Global and Planetary Change	0.6%(6)
43	2103 Fuel Technology	0.6%(6)
44	3308 Law	0.6%(6)

45	1800 Decision Sciences(all)	0.5%(5)
46	2611 Modelling and Simulation	0.5%(5)
47	1103 Animal Science and Zoology	0.4%(4)
48	1910 Oceanography	0.4%(4)
49	2203 Automotive Engineering	0.4%(4)
50	1201 Arts and Humanities (miscellaneous)	0.4%(4)
51	1403 Business and International Management	0.4%(4)
52	3306 Health(social science)	0.4%(4)
53	3301 Social Sciences (miscellaneous)	0.4%(4)
54	2500 Materials Science(all)	0.4%(4)
55	1106 Food Science	0.4%(4)
56	1700 Computer Science(all)	0.3%(3)
57	3104 Condensed Matter Physics	0.3%(3)
58	1903 Computers in Earth Sciences	0.3%(3)
59	1312 Molecular Biology	0.3%(3)
60	3005 Toxicology	0.3%(3)
61	1110 Plant Science	0.3%(3)
62	1712 Software	0.3%(3)
63	1303 Biochemistry	0.3%(3)
64	2604 Applied Mathematics	0.3%(3)
65	3204 Developmental and Educational Psychology	0.2%(2)
66	3107 Atomic and Molecular Physics, and Optics	0.2%(2)
67	3307 Human Factors and Ergonomics	0.2%(2)
68	3314 Anthropology	0.2%(2)
69	3316 Cultural Studies	0.2%(2)
70	1202 History	0.2%(2)
71	2207 Control and Systems Engineering	0.2%(2)
72	1600 Chemistry(all)	0.2%(2)
73	1605 Organic Chemistry	0.2%(2)
74	2201 Engineering (miscellaneous)	0.2%(2)
75	2101 Energy (miscellaneous)	0.2%(2)
76	1503 Catalysis	0.2%(2)
77	2001 Economics, Econometrics and Finance (miscellaneous)	0.2%(2)
78	1702 Artificial Intelligence	0.2%(2)
79	1508 Process Chemistry and Technology	0.2%(2)
80	1906 Geochemistry and Petrology	0.2%(2)
81	1314 Physiology	0.2%(2)
82	1900 Earth and Planetary Sciences(all)	0.2%(2)
83	1506 Filtration and Separation	0.1%(1)
84	3202 Applied Psychology	0.1%(1)
85	3207 Social Psychology	0.1%(1)
86	3200 Psychology(all)	0.1%(1)
87	3302 Archaeology	0.1%(1)
88	1501 Chemical Engineering (miscellaneous)	0.1%(1)
89	1502 Bioengineering	0.1%(1)
90	3304 Education	0.1%(1)
91	1604 Inorganic Chemistry	0.1%(1)
92	1405 Management of Technology and Innovation	0.1%(1)
93	1311 Genetics	0.1%(1)

94	3309 Library and Information Sciences	0.1%(1)
95	1308 Clinical Biochemistry	0.1%(1)
96	1101 Agricultural and Biological Sciences (miscellaneous)	0.1%(1)
97	1307 Cell Biology	0.1%(1)
98	1305 Biotechnology	0.1%(1)
99	1602 Analytical Chemistry	0.1%(1)
100	1204 Archaeology	0.1%(1)
101	3004 Pharmacology	0.1%(1)
102	1710 Information Systems	0.1%(1)
103	2216 Architecture	0.1%(1)
104	2200 Engineering(all)	0.1%(1)
105	2104 Nuclear Energy and Engineering	0.1%(1)
106	1109 Insect Science	0.1%(1)
107	1108 Horticulture	0.1%(1)
108	1907 Geology	0.1%(1)
109	1904 Earth-Surface Processes	0.1%(1)
110	1802 Information Systems and Management	0.1%(1)
111	1704 Computer Graphics and Computer-Aided Design	0.1%(1)
112	2916 Nutrition and Dietetics	0.1%(1)
113	1703 Computational Theory and Mathematics	0.1%(1)
114	2606 Control and Optimization	0.1%(1)
115	1607 Spectroscopy	0.1%(1)
116	2614 Theoretical Computer Science	0.1%(1)
117	1606 Physical and Theoretical Chemistry	0.1%(1)
118	2701 Medicine (miscellaneous)	0.1%(1)
119	2716 Genetics(clinical)	0.1%(1)
120	2719 Health Policy	0.1%(1)
121	2735 Pediatrics, Perinatology, and Child Health	0.1%(1)

S4 Detail of all subclusters

Subclusters of urban sustainability studies. Subclusters are sorted by average publication year in each parent cluster.

#	Parent_cluster	N_Papers	Year	TFIDF	Top_papers
1-10	Urbanization	334	2021.74	ewp efficiency agglomerations green agglomeration eco tourism innovation welfare cities	[('Landscape and Urban Planning', 'Urban agglomeration: An evolving concept of an emerging phenomenon', '10.1016/j.landurbplan.2017.02.014', (809,)), ('Resources Policy', "Research on the impact of green finance on the upgrading of China's regional industrial structure from the perspective of sustainable development", '10.1016/j.resourpol.2021.102436', (349,)), ('Environmental Impact Assessment Review', 'Assessing the impact of environmental regulation on pollution abatement and collaborative emissions reduction: Micro-evidence from Chinese industrial enterprises', '10.1016/j.eiar.2020.106382', (281,)), ('Ecological Indicators', 'Estimation of eco-efficiency and its influencing factors in Guangdong province based on Super-SBM and panel regression models', '10.1016/j.ecolind.2017.12.011', (236,)), ('Energy', "China's transportation sector carbon dioxide emissions efficiency and its influencing factors based on the EBM DEA model with undesirable outputs and spatial Durbin model", '10.1016/j.energy.2021.121934', (236,)), ('Journal of Cleaner Production', 'Sustainable development in the Yellow River Basin: Issues and strategies', '10.1016/j.jclepro.2020.121223', (222,)), ('Heliyon', 'Digital financial inclusion: A gateway to sustainable development', '10.1016/j.heliyon.2022.e09766', (212,)), ('Nature Communications', 'Land use change and carbon emissions of a transformation to timber cities', '10.1038/s41467-022-32244-w', (188,)), ('Journal of Environmental Management', 'Manuscript title: Exploring the impact of technological innovation, environmental regulations and urbanization on ecological efficiency of China in the context of COP21', '10.1016/j.jenvman.2020.111210', (172,)), ('Energy', 'Measuring the green economic growth in China: Influencing factors and policy perspectives', '10.1016/j.energy.2021.122518', (169,)), ('Journal of Geographical Sciences', 'Spatio-temporal evolution and influencing factors of urban green development efficiency in China', '10.1007/s11442-020-1752-5', (165,)), ('Resources Policy', 'Financial development, industrial structure and natural resource utilization efficiency in China', '10.1016/j.resourpol.2020.101642', (153,)), ('Journal of Environmental Management', 'Sustainability evaluation based on the Three-dimensional Ecological Footprint and Human Development Index: A case study on the four island regions in China', '10.1016/j.jenvman.2020.110509', (122,)), ('Journal of Cleaner Production', 'Regional green development level and its spatial relationship under the constraints of haze in China', '10.1016/j.jclepro.2018.11.037', (121,)), ('Public Administration Review', 'Regional Governance and Institutional Collective Action for Environmental Sustainability', '10.1111/puar.12799', (120,)), ('Sustainable Cities and Society', 'Measuring urban spatial interaction in Wuhan Urban Agglomeration, Central China: A spatially explicit approach', '10.1016/j.scs.2017.04.014', (108,)), ('Journal of Cleaner Production', 'Spatiotemporal characteristics and influential factors of eco-efficiency in Chinese prefecture-level cities: A spatial panel econometric analysis', '10.1016/j.jclepro.2020.120787', (99,)), ('Science of the Total Environment, The', 'How does environmental regulation affect real green technology innovation and strategic green technology innovation?', '10.1016/j.scitotenv.2023.162221', (98,)), ('Journal of Environmental Management', 'Dynamics, differences, influencing factors of eco-efficiency in China: A spatiotemporal perspective analysis', '10.1016/j.jenvman.2020.110442', (94,)), ('Journal of Cleaner Production', 'Green development determinants in China: A non-radial quantile outlook', '10.1016/j.jclepro.2017.06.062', (93,))]
1-1	Urbanization	1273	2021.34	esv ecosystem ess es services land habitat supply ecological service	[('Landscape Ecology', 'Landscape sustainability science: Ecosystem services and human well-being in changing landscapes', '10.1007/s10980-013-9894-9', (1243,)), ('Landscape Online', "Landscapes' capacities to provide ecosystem services - A concept for land-cover based assessments", '10.3097/LO.200915', (722,)), ('Proceedings of the National Academy of Sciences of the United States of America', 'Projected land-use change impacts on ecosystem services in the United States', '10.1073/pnas.1405557111', (701,)), ('Science of the Total Environment, The', 'Land use change, urbanization, and change in landscape pattern in a metropolitan area', '10.1016/j.scitotenv.2018.11.267', (624,)), ('Science of the Total Environment, The', 'Ecosystem services response to urbanization in metropolitan areas: Thresholds identification', '10.1016/j.scitotenv.2017.06.218', (580,)), ('Nature', 'Implications of agricultural transitions and urbanization for ecosystem services', '10.1038/nature13945', (529,)), ('Land Use Policy', 'Rural-urban gradient analysis of ecosystem services supply and demand dynamics', '10.1016/j.landusepol.2011.07.008', (468,)), ('Habitat International', 'Effects of land use transitions due to rapid urbanization on ecosystem services: Implications for urban planning in the new developing area of China', '10.1016/j.habitatint.2014.10.011', (436,)), ('Ecological Indicators', 'Impacts of urbanization and landscape pattern on habitat quality using OLS and GWR models in Hangzhou, China', '10.1016/j.ecolind.2020.106654', (414,)), ('Science of the Total Environment, The', 'A multiscale analysis of urbanization effects on ecosystem services supply in an urban megaregion', '10.1016/j.scitotenv.2019.01.260', (372,)), ('Environmental Modelling and Software', 'Assessing the potential impacts of urban expansion on regional carbon storage by linking the LUSD-urban and InVEST models', '10.1016/j.envsoft.2015.09.015', (360,)), ('Ecological Economics', 'Variations in ecosystem service value in response to land use changes in Shenzhen', '10.1016/j.ecolecon.2008.05.018', (323,)), ('Ecological Indicators', 'Spatio-temporal assessment of urbanization impacts on ecosystem services: Case study of Nanjing City, China', '10.1016/j.ecolind.2016.07.017', (291,)), ('Science of the Total Environment, The', 'Quantifying ecosystem services supply and demand shortfalls and mismatches for management optimisation', '10.1016/j.scitotenv.2018.09.126', (290,)), ('Resources, Conservation and Recycling', 'Impacts of urban expansion on ecosystem services in the Beijing-Tianjin-Hebei urban agglomeration, China: A scenario analysis based on the Shared Socioeconomic Pathways', '10.1016/j.resconrec.2017.06.003', (279,)), ('Science of the Total Environment, The', 'Impacts of land use/land cover changes on ecosystem services in ecologically fragile regions', '10.1016/j.scitotenv.2022.154967', (276,)), ('Science of the Total Environment, The', 'Significant trade-off for the impact of Grain-for-Green Programme on ecosystem services in North-western Yunnan, China', '10.1016/j.scitotenv.2016.09.026', (275,)), ('Nature Communications', 'Biodiversity across trophic levels drives multifunctionality in highly diverse forests', '10.1038/s41467-018-05421-z', (263,)), ('Landscape Ecology', 'Consequences of spatial heterogeneity for ecosystem services in changing forest landscapes: Priorities for future research', '10.1007/s10980-012-9741-4', (251,)), ('Cities', 'Impacts of land use/land cover change and socioeconomic development on regional ecosystem services: The case of fast-growing Hangzhou metropolitan area, China', '10.1016/j.cities.2012.08.003', (248,))]
1-15	Urbanization	99	2021.22	functional poi ufzs ufz commercial spatial functions ufa centrality road	[('International Journal of Geographical Information Science', 'Coupling mobile phone and social media data: a new approach to understanding urban functions and diurnal patterns', '10.1080/13658816.2017.1356464', (275,)), ('Cities', 'Geographical patterns of traffic congestion in growing megacities: Big data analytics from Beijing', '10.1016/j.cities.2019.03.022', (185,)), ('Habitat International', 'Spatial pattern of urban functions in the Beijing metropolitan region', '10.1016/j.habitatint.2009.09.010', (135,)), ('Remote Sensing', 'Portraying urban functional zones by coupling remote sensing imagery and human sensing data', '10.3390/rs10010141', (125,)), ('Computers, Environment and Urban Systems', 'Integrating landscape metrics and socioeconomic features for urban functional region classification', '10.1016/j.compenvurbsys.2018.06.005', (104,)), ('Science of the Total Environment, The', 'Spatial evolution of population change in Northeast China during 1992–2018', '10.1016/j.scitotenv.2021.146023', (102,)), ('Journal of Urban Planning and Development', 'Evaluating land-use change in rapidly urbanizing China: Case study of Shanghai', '10.1061/(ASCE)0733-9488(2009)135:4(166)', (102,)), ('GIScience and Remote Sensing', 'Large-scale urban functional zone mapping by integrating remote sensing images and open social data', '10.1080/15481603.2020.1724707', (101,)), ('Sustainable Cities and Society', 'Morphological and functional polycentric structure assessment of megacity: An integrated approach with spatial distribution and interaction', '10.1016/j.scs.2022.103800', (100,)), ('PLoS ONE', 'Identification and analysis of urban functional area in Hangzhou based on OSM and POI data', '10.1371/journal.pone.0251988', (86,)), ('ISPRS International Journal of Geo-Information', 'Mapping urban spatial structure based on POI (Point of interest) data: A case study of the central city of Lanzhou, China', '10.3390/ijgi9020092', (70,)), ('Geography and Sustainability', 'Identification method and empirical study of urban industrial spatial relationship based on POI big data: a case of Shenyang City, China', '10.1016/j.geosus.2020.06.003', (62,)), ('Remote Sensing of Environment', 'Deep learning for urban land use category classification: A review and experimental assessment', '10.1016/j.rse.2024.114290', (56,)), ('Ecological Indicators', 'Measuring urban compactness based on functional characterization and human activity intensity by integrating multiple geospatial data sources', '10.1016/j.ecolind.2020.107177', (54,)), ('Remote Sensing', 'Identification of urban functional areas by coupling satellite images and taxi GPS trajectories', '10.3390/RS12152449', (53,)), ('International Journal of Environmental Research and Public Health', 'DBSCAN Spatial Clustering Analysis of Urban “Production–Living–Ecological” Space Based on POI Data: A Case Study of Central Urban Wuhan, China', '10.3390/ijerph19095153', (38,)), ('ISPRS International Journal of Geo-Information', 'The influence of spatial grid division on the layout analysis of urban functional areas', '10.3390/ijgi10030189', (33,)), ('Chinese Geographical Science', 'Multi-source Data-driven Identification of Urban Functional Areas: A Case of Shenyang, China', '10.1007/s11769-022-1320-2', (28,)), ('International Journal of Urban Sciences', 'Analysis of road traffic speed in Kunming plateau mountains: a fusion PSO-LSTM algorithm', '10.1080/12265934.2021.1882331', (24,)), ('IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing', 'Urban Functional Zone Mapping with a Bibranch Neural Network via Fusing Remote Sensing and Social Sensing Data', '10.1109/JSTARS.2021.3127246', (24,))]

1-2	Urbanization	1214	2021.18	coupling coordination urbanization ecological rsei carbon ccd eco china degree	[('Habitat International', 'Assessment on the urbanization strategy in China: Achievements, challenges and reflections', '10.1016/j.habitatint.2017.11.009', (589,)), ('Business Strategy and the Environment', 'Digitalization and sustainable development: How could digital economy development improve green innovation in China?', '10.1002/bse.3223', (535,)), ('Ecological Indicators', 'Exploring the relationship between urbanization and the eco-environment - A case study of Beijing-Tianjin-Hebei region', '10.1016/j.ecolind.2014.04.006', (416,)), ('Journal of Cleaner Production', "Can low-carbon city construction facilitate green growth? Evidence from China's pilot low-carbon city initiative", '10.1016/j.jclepro.2019.05.327', (403,)), ('Journal of Cleaner Production', 'Coupling coordinated development between social economy and ecological environment in Chinese provincial capital cities-assessment and policy implications', '10.1016/j.jclepro.2019.05.027', (402,)), ('Journal of Environmental Management', 'Dynamic simulation and assessment of the coupling coordination degree of the economy–resource–environment system: Case of Wuhan City in China', '10.1016/j.jenvman.2018.09.065', (398,)), ('Ecological Indicators', 'Examining the relationship between urbanization and the eco-environment using a coupling analysis: Case study of Shanghai, China', '10.1016/j.ecolind.2017.01.017', (363,)), ('Science Advances', 'Forty years of reform and opening up: China's progress toward a sustainable path', '10.1126/sciadv.aau9413', (351,)), ('Journal of Cleaner Production', 'The effect of natural and anthropogenic factors on haze pollution in Chinese cities: A spatial econometrics approach', '10.1016/j.jclepro.2017.07.127', (319,)), ('Technological Forecasting and Social Change', 'Environmental regulation, green technological innovation, and eco-efficiency: The case of Yangtze river economic belt in China', '10.1016/j.techfore.2020.119993', (309,)), ('Journal of Cleaner Production', 'Exploring the relationship between urbanization and urban eco-efficiency: Evidence from prefecture-level cities in China', '10.1016/j.jclepro.2017.11.115', (298,)), ('Journal of Environmental Management', 'Spatiotemporal differentiation and the factors influencing urbanization and ecological environment synergistic effects within the Beijing-Tianjin-Hebei urban agglomeration', '10.1016/j.jenvman.2019.04.088', (293,)), ('Sustainable Cities and Society', 'Coupling coordination evaluation and sustainable development pattern of geo-ecological environment and urbanization in Chongqing municipality, China', '10.1016/j.scs.2020.102271', (293,)), ('Applied Energy', 'A holistic low carbon city indicator framework for sustainable development', '10.1016/j.apenergy.2016.03.041', (293,)), ('Science of the Total Environment, The', 'Coupling coordination analysis and spatiotemporal heterogeneity between urbanization and ecosystem health in Chongqing municipality, China', '10.1016/j.scitotenv.2021.148311', (284,)), ('Cities', "Progress of China's new-type urbanization construction since 2014: A preliminary assessment", '10.1016/j.cities.2018.02.012', (271,)), ('Journal of Cleaner Production', 'Assessment of city sustainability—Coupling coordinated development among economy, society and environment', '10.1016/j.jclepro.2020.120453', (266,)), ('Cities', 'Sustainable urbanization in China: A comprehensive literature review', '10.1016/j.cities.2016.04.002', (262,)), ('Journal of Geographical Sciences', 'International progress and evaluation on interactive coupling effects between urbanization and the eco-environment', '10.1007/s11442-016-1317-9', (260,)), ('Annual Review of Environment and Resources', 'Linking Urbanization and the Environment: Conceptual and Empirical Advances', '10.1146/annurev-environ-102016-061128', (256,))]
1-11	Urbanization	237	2021.05	shrinkage shrinking cities resource rbcs carbon mining transformation industrial exhausted	[('Science of the Total Environment, The', "Influence of digital finance and green technology innovation on China's carbon emission efficiency: Empirical analysis based on spatial metrology", '10.1016/j.scitotenv.2022.156463', (341,)), ('Environmental Impact Assessment Review', 'Transformation effect of resource-based cities based on PSM-DID model: An empirical analysis from China', '10.1016/j.eiar.2021.106648', (207,)), ('European Planning Studies', 'Policy Responses to Urban Shrinkage: From Growth Thinking to Civic Engagement', '10.1080/09654313.2013.793655', (179,)), ('Cities', 'The complexity for the resource-based cities in China on creating sustainable development', '10.1016/j.cities.2019.102571', (141,)), ('Science of the Total Environment, The', 'The determinants of urban sustainability in Chinese resource-based cities: A panel quantile regression approach', '10.1016/j.scitotenv.2019.05.386', (126,)), ('Resources, Conservation and Recycling', "Has the Sustainable Development Planning Policy Promoted the Green Transformation in China's Resource-based Cities?", '10.1016/j.resconrec.2022.106181', (124,)), ('Sustainability', 'Household livelihood strategies and dependence on agriculture in the mountainous settlements in the three gorges reservoir area, China', '10.3390/su7054850', (122,)), ('Environmental Impact Assessment Review', 'How does digitalization drive carbon emissions? The inverted U-shaped effect in China', '10.1016/j.eiar.2023.107203', (120,)), ('Land Use Policy', 'Effects of land use transitions due to underground coal mining on ecosystem services in high groundwater table areas: A case study in the Yanzhou coalfield', '10.1016/j.landusepol.2017.11.059', (106,)), ('Acta Geographica Sinica', 'Spatio-temporal evolution and trend prediction of urban carbon emission performance in China based on super-efficiency SBM model', '10.11821/dlxb202006016', (105,)), ('Applied Energy', 'CO emission patterns in shrinking and growing cities: A case study of Northeast China and the Yangtze River Delta', '10.1016/j.apenergy.2019.113384', (99,)), ('Cities', 'Quantifying spatiotemporal patterns of shrinking cities in urbanizing China: A novel approach based on time-series nighttime light data', '10.1016/j.cities.2021.103346', (96,)), ('Journal of Cleaner Production', 'Getting depleted resource-based cities back on their feet again – the example of Yichun in China', '10.1016/j.jclepro.2015.09.101', (95,)), ('Environmental Technology and Innovation', 'Spatial effect of innovation efficiency on ecological footprint: City-level empirical evidence from China', '10.1016/j.eti.2021.101536', (94,)), ('Results in Engineering', 'Integration of renewable energy and sustainable development with strategic planning in the mining industry', '10.1016/j.rineng.2023.101412', (91,)), ('Journal of Geographical Sciences', 'Identification and classification of resource-based cities in China', '10.1007/s11442-019-1660-8', (78,)), ('Journal of Cleaner Production', 'Spatial variation of energy efficiency based on a Super-Slack-Based Measure: Evidence from 104 resource-based cities', '10.1016/j.jclepro.2019.117669', (78,)), ('Zhongguo Renkou Ziyuan Yu Huan Jing/ China Population Resources and Environment', "Problems and strategies of industrial transformation of China's resource-based cities", 'NO DOI', (70,)), ('Sustainable Cities and Society', 'Quantitative identification and evolution trend simulation of shrinking cities at the county scale, China', '10.1016/j.scs.2020.102611', (69,)), ('Sustainability', 'The urban transition performance of resource-based cities in northeast China', '10.3390/su8101022', (65,))]
1-4	Urbanization	860	2020.92	expansion vegetation land ntl urban npp urbanization nighttime cover global	[('Science', 'Global change and the ecology of cities', '10.1126/science.1150195', (5635,)), ('Proceedings of the National Academy of Sciences of the United States of America', 'Future urban land expansion and implications for global croplands', '10.1073/pnas.1606036114', (1059,)), ('Proceedings of the National Academy of Sciences of the United States of America', 'Urban land teleconnections and sustainability', '10.1073/pnas.1117622109', (701,)), ('Nature Sustainability', 'High-spatiotemporal-resolution mapping of global urban change from 1985 to 2015', '10.1038/s41893-020-0521-x', (653,)), ('Annual Review of Environment and Resources', 'The new geography of contemporary urbanization and the environment', '10.1146/annurev-environ-100809-125336', (581,)), ('Nature Communications', 'Dramatic uneven urbanization of large cities throughout the world in recent decades', '10.1038/s41467-020-19158-1', (487,)), ('Anthropocene', 'Land system science and sustainable development of the earth system: A global land project perspective', '10.1016/j.ancene.2015.09.004', (459,)), ('Global Change Biology', 'Urban expansion dynamics and natural habitat loss in China: A multiscale landscape perspective', '10.1111/gcb.12553', (439,)), ('Land Use Policy', 'The driving forces of landscape change in Europe: A systematic review of the evidence', '10.1016/j.landusepol.2016.04.040', (438,)), ('Nature Sustainability', 'Direct and indirect loss of natural area from urban expansion', '10.1038/s41893-019-0340-0', (428,)), ('ISPRS Journal of Photogrammetry and Remote Sensing', 'Breaking new ground in mapping human settlements from space – The Global Urban Footprint', '10.1016/j.isprsjprs.2017.10.012', (352,)), ('Landscape Ecology', 'How much of the world's land has been urbanized, really? A hierarchical framework for avoiding confusion', '10.1007/s10980-014-0034-y', (349,)), ('Environmental Science and Technology', 'Landscape urbanization and economic growth in China: Positive feedbacks and sustainability dilemmas', '10.1021/es202329f', (338,)), ('Land Degradation & Development', "China's wetlands loss to urban expansion", '10.1002/ldr.2939', (336,)), ('Nature Communications', 'Global impacts of future urban expansion on terrestrial vertebrate diversity', '10.1038/s41467-022-29324-2', (305,)), ('Proceedings of the National Academy of Sciences of the United States of America', 'Sustainability in an urbanizing planet', '10.1073/pnas.1606037114', (274,)), ('Science Advances', "Direct and indirect impacts of urbanizationon vegetation growth across the world's cities", '10.1126/sciadv.abo0095', (252,)), ('Proceedings of the National Academy of Sciences of the United States of America', 'Spatially disaggregated population estimates in the absence of national population and housing census data', '10.1073/pnas.1715305115', (251,)), ('Understanding Complex Systems', 'Opinion dynamics: Models, extensions and external effects', '10.1007/978-3-319-25658-0_17', (248,)), ('Remote Sensing of Environment', 'A global record of annual urban dynamics (1992–2013) from nighttime lights', '10.1016/j.rse.2018.10.015', (245,))]
1-5	Urbanization	843	2020.83	ecological security corridors land landscape risk network connectivity area ler	[('Science of the Total Environment, The', 'Linking ecosystem services and circuit theory to identify ecological security patterns', '10.1016/j.scitotenv.2018.06.292', (710,)), ('Sustainable Cities and Society', 'Multi-scenario simulation of urban land change in Shanghai by random forest and CA-Markov model', '10.1016/j.scs.2020.102045', (309,)), ('Urban Ecosystems', 'Coupling ecosystem services supply and human ecological demand to identify landscape ecological security pattern: A case study in Beijing–Tianjin–Hebei region, China', '10.1007/s11252-016-0629-y', (306,)), ('Ecological Modelling', 'Evaluation of urban suitable ecological land based on the minimum cumulative resistance model: A case study from Changzhou, China', '10.1016/j.ecolmodel.2014.09.002', (228,)), ('Journal of Cleaner Production', 'Incorporating ecological risk index in the multi-process MCRE model to optimize the ecological security pattern in a semi-arid area with intensive coal mining: A case study in northern China', '10.1016/j.jclepro.2019.119143', (219,)), ('Ecological Indicators', 'Constructing and optimizing urban ecological network in the context of rapid urbanization for improving landscape connectivity', '10.1016/j.ecolind.2021.108319', (206,)), ('Acta Geographica Sinica', 'Review on landscape ecological risk assessment', '10.11821/dlxb201504013', (204,)), ('Sustainable Cities and Society', 'Urban ecological security assessment and forecasting using integrated DEMATEL-ANP and CA-Markov models: A case study on Kolkata Metropolitan Area, India', '10.1016/j.scs.2021.102773', (196,)), ('Science of the Total Environment, The', 'Assessing ecological risks caused by human activities in rapid urbanization coastal areas: Towards an integrated approach to determining key areas of terrestrial-oceanic ecosystems preservation and restoration', '10.1016/j.scitotenv.2019.135153', (188,)), ('Landscape and Urban Planning', 'Multipurpose greenway planning for changing cities: A framework integrating priorities and a least-cost path model', '10.1016/j.landurbplan.2011.05.007', (181,)), ('Ecological Indicators', 'Construction of an ecological security pattern based on ecosystem sensitivity and the importance of ecological services: A case study of the Guanzhong Plain urban agglomeration, China', '10.1016/j.ecolind.2022.108688', (172,)), ('Urban Forestry and Urban Greening', 'Landscape pattern analysis and ecological network planning of Tianjin City', '10.1016/j.ufug.2019.126479', (171,)), ('Landscape Ecology', 'Linking ecological background and demand to identify ecological security patterns across the Guangdong-Hong Kong-Macao Greater Bay Area in China', '10.1007/s10980-021-01234-6', (171,)), ('Science of the Total Environment, The', 'Fuzzy evaluation of the ecological security of land resources in mainland China based on the Pressure-State-Response framework', '10.1016/j.scitotenv.2021.150053', (166,)), ('Ecological Indicators', 'Establishing an ecological vulnerability assessment indicator system for spatial recognition and management of ecologically vulnerable areas in highly urbanized regions: A case study of Shenzhen, China', '10.1016/j.ecolind.2016.05.028', (157,)), ('Ecological Indicators', "The complex ecological network's resilience of the Wuhan metropolitan area", '10.1016/j.ecolind.2021.108101', (150,)), ('Sustainability', 'Ecological corridors analysis based on MSPA and MCR model-a case study of the tomur world natural heritage region', '10.3390/su12030959', (141,)), ('Journal of Hydrology', 'Soil erosion risk in Korean watersheds, assessed using the revised universal soil loss equation', '10.1016/j.jhydrol.2011.01.004', (139,)), ('Landscape and Urban Planning', 'Assessing urban landscape ecological risk through an adaptive cycle framework', '10.1016/j.landurbplan.2018.08.014', (136,)), ('Ecological Indicators', 'Simulating land use/land cover change in an arid region with the coupling models', '10.1016/j.ecolind.2020.107231', (131,))]

1-9	Urbanization	352	2020.77	land conflict ples space conflicts ecological function functions use lufs	[('Environment International', 'Soil and soil environmental quality monitoring in China: A review', '10.1016/j.envint.2014.04.014', (381,)), ('Ecological Indicators', 'Coupling coordination analysis of rural production-living-ecological space in the Beijing-Tianjin-Hebei region', '10.1016/j.ecolind.2020.106512', (317,)), ('Science of the Total Environment, The', 'Conflict or coordination? Assessing land use multi-functionalization using production-living-ecology analysis', '10.1016/j.scitotenv.2016.10.143', (314,)), ('Forest Ecology and Management', 'Factors affecting runoff and soil erosion: Plot-level soil loss monitoring for assessing sustainability of forest management', '10.1016/S0378-1127(02)00656-4', (227,)), ('Habitat International', 'A system dynamics model for the sustainable land use planning and development', '10.1016/j.habitatint.2008.02.004', (203,)), ('Ecological Indicators', 'Spatial identification of land use functions and their tradeoffs/synergies in China: Implications for sustainable land management', '10.1016/j.ecolind.2019.105550', (197,)), ('Geoderma', 'Application of SAW, TOPSIS and fuzzy TOPSIS models in cultivation priority planning for maize, rapeseed and soybean crops', '10.1016/j.geoderma.2017.09.012', (184,)), ('Journal of Cleaner Production', "Land use conflict identification and sustainable development scenario simulation on China's southeast coast", '10.1016/j.jclepro.2019.117899', (168,)), ('Ecological Indicators', 'An analysis of land use conflict potentials based on ecological-production-living function in the southeast coastal area of China', '10.1016/j.ecolind.2020.107297', (159,)), ('Land Use Policy', "Challenges facing China's unbalanced urbanization strategy", '10.1016/j.landusepol.2013.12.004', (143,)), ('Acta Geographica Sinica', 'Geography: From knowledge, science to decision making support', '10.11821/dlxb201711001', (137,)), ('Remote Sensing', 'Long-term changes of open-surfacewater bodies in the Yangtze River Basin based on the google earth engine cloud platform', '10.3390/rs11192213', (136,)), ('Science of the Total Environment, The', 'Spatial-temporal pattern of land use conflict in China and its multilevel driving mechanisms', '10.1016/j.scitotenv.2021.149697', (136,)), ('Land Use Policy', 'How feasible is regional integration for reconciling land use conflicts across the urban–rural interface? Evidence from Beijing–Tianjin–Hebei metropolitan region in China', '10.1016/j.landusepol.2019.104433', (135,)), ('Acta Geographica Sinica', 'Territorial multi-functionality evaluation and decision-making mechanism at county scale in China', 'NO DOI', (114,)), ('Land Use Policy', 'Spatial and temporal analyses of potential land use conflict under the constraints of water resources in the middle reaches of the Heihe River', '10.1016/j.landusepol.2020.104773', (106,)), ('Journal of Environmental Management', 'How to reconcile land use conflicts in mega urban agglomeration? A scenario-based study in the Beijing-Tianjin-Hebei region, China', '10.1016/j.jenvman.2021.113168', (99,)), ('Current Opinion in Environmental Sustainability', 'Metacoupling supply and demand for soil conservation service', '10.1016/j.cosust.2018.05.011', (85,)), ('Environmental Monitoring and Assessment', 'Spatial characteristics and risk factor identification for land use spatial conflicts in a rapid urbanization region in China', '10.1007/s10661-019-7809-1', (84,)), ('Science of the Total Environment, The', 'Response of agricultural multifunctionality to farmland loss under rapidly urbanizing processes in Yangtze River Delta, China', '10.1016/j.scitotenv.2019.02.226', (84,))]
1-3	Urbanization	984	2020.77	land efficiency sprawl ulue use cultivated expansion china farmland urban	[('Land Use Policy', 'Key issues of land use in China and implications for policy making', '10.1016/j.landusepol.2013.03.013', (1045,)), ('Land Use Policy', 'Introduction to land use and rural sustainability in China', '10.1016/j.landusepol.2018.01.032', (659,)), ('Proceedings of the National Academy of Sciences of the United States of America', 'Policy distortions, farm size, and the overuse of agricultural chemicals in China', '10.1073/pnas.1806645115', (619,)), ('Land Use Policy', "Land-use changes and land policies evolution in China's urbanization processes", '10.1016/j.landusepol.2018.04.011', (355,)), ('Land Use Policy', 'Policy and praxis of land acquisition in China', '10.1016/j.landusepol.2005.09.002', (345,)), ('Land Use Policy', 'Land use change and driving factors in rural China during the period 1995-2015', '10.1016/j.landusepol.2020.105048', (301,)), ('Land Use Policy', 'Land use efficiency and influencing factors of urban agglomerations in China', '10.1016/j.landusepol.2019.104143', (290,)), ('Land Use Policy', 'Cultivated land protection and rational use in China', '10.1016/j.landusepol.2021.105454', (281,)), ('Applied Geography', 'Transformation of agricultural landscapes under rapid urbanization: A threat to sustainability in Hang-Jia-Hu region, China', '10.1016/j.apgeog.2010.10.008', (279,)), ('Technological Forecasting and Social Change', 'Provincial cultivated land use efficiency in China: Empirical analysis based on the SBM-DEA model with carbon emissions considered', '10.1016/j.techfore.2019.119874', (265,)), ('Nature Sustainability', 'Progress towards sustainable intensification in China challenged by land-use change', '10.1038/s41893-018-0076-2', (249,)), ('Sustainability', 'Long-term urban growth and land use efficiency in Southern Europe: Implications for sustainable land management', '10.3390/su7033359', (244,)), ('Habitat International', 'Economic transition, spatial development and urban land use efficiency in the Yangtze River Delta, China', '10.1016/j.habitatint.2017.03.012', (229,)), ('Stochastic Environmental Research and Risk Assessment', 'Urbanization, urban land expansion and environmental change in China', '10.1007/s00477-013-0840-9', (221,)), ('Journal of Geographical Sciences', 'Spatiotemporal patterns in urbanization efficiency within the Yangtze River Economic Belt between 2005 and 2014', '10.1007/s11442-018-1545-2', (209,)), ('Land Use Policy', 'Efficiency of construction land allocation in China: An econometric analysis of panel data', '10.1016/j.landusepol.2017.03.030', (204,)), ('Journal of Environmental Management', 'Analysis of arable land loss and its impact on rural sustainability in Southern Jiangsu Province of China', '10.1016/j.jenvman.2009.09.028', (203,)), ('Ecological Indicators', 'Improving the measurement of urban sprawl: Weighted Urban Proliferation (WUP) and its application to Switzerland', '10.1016/j.ecolind.2013.11.022', (199,)), ('Land Use Policy', 'Land use dynamics driven by rural industrialization and land finance in the peri-urban areas of China: "The examples of Jiangyin and Shunde"', '10.1016/j.landusepol.2015.01.006', (197,)), ('Technological Forecasting and Social Change', 'Improving eco-efficiency for the sustainable agricultural production: A case study in Shandong, China', '10.1016/j.techfore.2018.01.027', (196,))]
1-6	Urbanization	742	2020.51	rural villages settlements decoupling land village revitalization poverty livelihood tourism	[('Transport Policy', 'Towards a theory of decoupling: Degrees of decoupling in the EU and the case of road traffic in Finland between 1970 and 2001', '10.1016/j.tranpol.2005.01.001', (1463,)), ('Capitalism with Chinese Characteristics: Entrepreneurship and the State', 'Capitalism with Chinese characteristics: Entrepreneurship and the state', '10.1017/CBO9780511754210', (1148,)), ('Earth-Science Reviews', 'Rocky desertification in Southwest China: Impacts, causes, and restoration', '10.1016/j.earscirev.2014.01.005', (1065,)), ('Journal of Rural Studies', 'Why some rural areas decline while some others not: An overview of rural evolution in the world', '10.1016/j.jrurstud.2019.03.003', (591,)), ('Acta Geographica Sinica', 'Research on the urban-rural integration and rural revitalization in the new era in China', '10.11821/dlxb201804004', (545,)), ('Journal of Rural Studies', 'Spatio-temporal patterns of rural poverty in China and targeted poverty alleviation strategies', '10.1016/j.jrurstud.2017.04.002', (432,)), ('Journal of Cleaner Production', "Urbanization for rural sustainability – Rethinking China's urbanization strategy", '10.1016/j.jclepro.2017.12.273', (322,)), ('Ecological Economics', 'Life satisfaction and air quality in London', '10.1016/j.ecolecon.2008.10.004', (299,)), ('Journal of Rural Studies', "Spatial distribution characteristics and optimized reconstruction analysis of China's rural settlements during the process of rapid urbanization", '10.1016/j.jrurstud.2016.05.013', (273,)), ('Science of the Total Environment, The', "Towards the progress of ecological restoration and economic development in China's Loess Plateau and strategy for more sustainable development", '10.1016/j.scitotenv.2020.143676', (267,)), ('Journal of Hospitality and Tourism Management', 'Effects of rural revitalization on rural tourism', '10.1016/j.jhtm.2021.02.008', (259,)), ('Ecological Indicators', 'Sustainable livelihood framework-based indicators for assessing climate change vulnerability and adaptation for Himalayan communities', '10.1016/j.ecolind.2017.03.047', (255,)), ('World Development', 'Measuring livelihood resilience: The Household Livelihood Resilience Approach (HLRA)', '10.1016/j.worlddev.2018.02.024', (250,)), ('Science Advances', "Addressing China's grand challenge of achieving food security while ensuring environmental sustainability", '10.1126/sciadv.1400039', (229,)), ('Journal of Cleaner Production', 'Dynamic analysis of ecological environment combined with land cover and NDVI changes and implications for sustainable urban–rural development: The case of Mu Us Sandy Land, China', '10.1016/j.jclepro.2016.09.011', (227,)), ('Acta Geographica Sinica', 'Rural regional system and rural revitalization strategy in China', '10.11821/dlxb201912007', (170,)), ('Journal of Rural Studies', 'Rural innovation system: Revitalize the countryside for a sustainable development', '10.1016/j.jrurstud.2019.10.014', (170,)), ('Ecological Economics', 'Poverty, sustainability, and household livelihood strategies in Zagros, Iran', '10.1016/j.ecolecon.2012.04.019', (164,)), ('Journal of Comparative Economics', 'Growth and structural changes in employment in transition China', '10.1016/j.jce.2009.10.006', (157,)), ('Land Use Policy', 'Rural decline or restructuring? Implications for sustainability transitions in rural China', '10.1016/j.landusepol.2020.104531', (154,))]
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2-19	Mobility	117	2020.51	transport fuzzy criteria ahp decision mobility bus public latin traffic	[('Sustainability', 'Sustainable urban transport planning considering different stakeholder groups by an interval-AHP decision support model', '10.3390/su11010009', (126,)), ('Journal of Urban Health', 'Building a Data Platform for Cross-Country Urban Health Studies: the SALURBAL Study', '10.1007/s11524-018-00326-0', (121,)), ('Sustainability', 'Analysing stakeholder consensus for a sustainable transport development decision by the fuzzy AHP and interval AHP', '10.3390/su10023271', (114,)), ('Engineering Applications of Artificial Intelligence', 'A novel parsimonious spherical fuzzy analytic hierarchy process for sustainable urban transport solutions', '10.1016/j.engappai.2023.107447', (103,)), ('Sustainable Cities and Society', 'Urban experiments with public transport for low carbon mobility transitions in cities: A systematic literature review (1990–2020)', '10.1016/j.scs.2021.103023', (98,)), ('Global Challenges', 'A Novel International Partnership for Actionable Evidence on Urban Health in Latin America: LAC-Urban Health and SALURBAL', '10.1002/gch2.201800013', (94,)), ('Journal of Cleaner Production', 'Circular economy concepts in urban mobility alternatives using integrated DIBR method and fuzzy Dombi CoCoSo model', '10.1016/j.jclepro.2021.129096', (75,)), ('Sustainability', 'An integrated approach of multi-criteria decision-making and grey theory for evaluating urban public transportation systems', '10.3390/su13052740', (58,)), ('Engineering Applications of Artificial Intelligence', 'A hybrid approach based on dual hesitant q-rung orthopair fuzzy Frank power partitioned Heronian mean aggregation operators for estimating sustainable urban transport solutions', '10.1016/j.engappai.2023.106505', (55,)), ('Sustainability', 'Sustainable urban transport development with stakeholder participation, an AHP-Kendall model: A case study for Mersin', '10.3390/su10103647', (54,)), ('Sustainability', 'Multi-criteria evaluation of railway network performance in countries of the TEN-T orient-east med corridor', '10.3390/su12041482', (53,)), ('Sustainable Cities and Society', 'Sustainable development solutions of public transportation:An integrated IMF SWARA and Fuzzy Bonferroni operator', '10.1016/j.scs.2023.104530', (53,)), ('Science of the Total Environment, The', 'Prioritization of zero-carbon measures for sustainable urban mobility using integrated double hierarchy decision framework and EDAS approach', '10.1016/j.scitotenv.2021.149068', (46,)), ('Journal of Vibroengineering', 'The evaluation of the sustainable transport system development with the scenario analyses procedure', '10.21595/jve.2017.19275', (42,)), ('Engineering Applications of Artificial Intelligence', 'Fermatean fuzzy Archimedean Heronian Mean-Based Model for estimating sustainable urban transport solutions', '10.1016/j.engappai.2023.107349', (42,)), ('Environment, Development and Sustainability', 'Prioritizing pedestrian needs using a multi-criteria decision approach for a sustainable built environment in the Indian context', '10.1007/s10668-019-00381-w', (41,)), ('Urban Science', 'Sustainable Urban Transport Development by Applying a Fuzzy-AHP Model: A Case Study from Mersin, Turkey', '10.3390/urbansci3020055', (36,)), ('Sustainable Cities and Society', 'Green Strategies in Mobility Planning Towards Climate Change Adaption of Urban Areas Using Fuzzy 2D Algorithm', '10.1016/j.scs.2022.104159', (35,)), ('Sustainability', 'An integrated assessment method for sustainable transport system planning in a middle sized German city', '10.3390/su7021329', (29,)), ('International Journal of Injury Control and Safety Promotion', 'A proactive approach to assess safety level of urban bus stops', '10.1080/17457300.2019.1626442', (29,))]

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2-9	Mobility	266	2020.10	mobility sump sumps transport plans european cities measures traffic public	[('Nature Communications', 'Hierarchical organization of urban mobility and its connection with city livability', '10.1038/s41467-019-12809-y', (200,)), ('Conference on Human Factors in Computing Systems - Proceedings', 'OneBusAway: Results from providing real-time arrival information for public transit', '10.1145/1753326.1753597', (188,)), ('Sustainability', 'Integration of a multilevel transport system model into sustainable Urban mobility planning', '10.3390/su10020479', (110,)), ('Research in Transportation Economics', 'Sustainable urban mobility plans: Bridging climate change and equity targets?', '10.1016/j.retrec.2016.04.008', (109,)), ('Transportation Research Procedia', 'Citizen and Stakeholder Involvement: A Precondition for Sustainable Urban Mobility', '10.1016/j.trpro.2014.11.026', (108,)), ('Transportation Research Part D: Transport and Environment', 'Sustainable urban mobility: One definition, different stakeholders' opinions', '10.1016/j.trd.2020.102465', (97,)), ('Journal of Environmental Management', 'Evaluating the impact of "Sustainable Urban Mobility Plans" on urban background air quality', '10.1016/j.jenvman.2018.10.039', (90,)), ('Case Studies on Transport Policy', 'Encouraging good practice in the development of Sustainable Urban Mobility Plans', '10.1016/j.cstp.2014.09.001', (86,)), ('Sustainability', 'How digital natives learn and thrive in the digital age: Evidence from an emerging economy', '10.3390/su12093819', (82,)), ('Transport Policy', 'The way to sustainable mobility. A comparative analysis of sustainable mobility plans in Spain', '10.1016/j.tranpol.2018.07.001', (82,)), ('International Journal of Urban and Regional Research', 'Fairtrade urbanism? The politics of place beyond place in the Bristol Fairtrade City Campaign', '10.1111/j.1468-2427.2007.00747.x', (78,)), ('Transportation Research Part A', 'Confronting congestion in urban areas: Developing Sustainable Mobility Plans for public and private organizations in Bogotá', '10.1016/j.tra.2020.02.019', (76,)), ('Sustainability', 'Sustainable urban mobility plans: How do they work?', '10.3390/su11174605', (70,)), ('Research in Transportation Business and Management', 'Active Travel in Sustainable Urban Mobility Plans. An Italian overview', '10.1016/j.rtbm.2021.100621', (66,)), ('Sustainability', 'What is smart for the future city? Mobilities and automation', '10.3390/su11010221', (63,)), ('Transport Policy', 'Developing a set of decision-support tools for sustainable urban transport in the UK', '10.1016/j.tranpol.2008.12.010', (61,)), ('IATSS Research', 'The evolution of urban mobility: The interplay of academic and policy perspectives', '10.1016/j.iatssr.2014.06.001', (57,)), ('Sustainability', 'New Paradigm of Sustainable Urban Mobility: Electric and Autonomous Vehicles—A Review and Bibliometric Analysis', '10.3390/su14159525', (48,)), ('European Transport Research Review', 'Appropriate national policy frameworks for sustainable urban mobility plans', '10.1007/s12544-017-0224-1', (48,)), ('Journal of Transport Geography', 'Citizen involvement in promoting sustainable mobility', '10.1016/j.jtrangeo.2010.01.005', (46,))]
2-8	Mobility	363	2019.98	walkability pedestrian walking street walkable pedestrians streets mobility active spn	[('Urban Design International', 'What is a walkable place? The walkability debate in urban design', '10.1057/udi.2015.22', (395,)), ('Measuring Urban Design: Metrics for Livable Places', 'Measuring urban design: Metrics for livable places', '10.5822/978-1-61091-209-9', (310,)), ('Cities', "Does walkability matter? An examination of walkability's impact on housing values, foreclosures and crime", '10.1016/j.cities.2014.08.001', (206,)), ('Transportation Research Part D: Transport and Environment', 'Transport, urban design, and physical activity: An evidence-based update', '10.1016/j.trd.2004.12.001', (202,)), ('Journal of Urban Planning and Development', 'Evaluating pedestrian connectivity for Suburban sustainability', '10.1061/(ASCE)0733-9488(2001)127:1(1)', (150,)), ('Frontiers in Built Environment', 'Walkability and Its Relationships With Health, Sustainability, and Livability: Elements of Physical Environment and Evaluation Frameworks', '10.3389/fbuil.2021.721218', (135,)), ('Journal of Transport Geography', 'Auditing street walkability and associated social inequalities for planning implications', '10.1016/j.jtrangeo.2018.11.003', (126,)), ('International Journal of Sustainable Transportation', 'Built environment attributes and their influence on walkability', '10.1080/15568318.2021.1914793', (126,)), ('Transportation Research Part F: Traffic Psychology and Behaviour', 'How gender differences and perceptions of safety shape urban mobility in Southeast Asia', '10.1016/j.trf.2020.06.014', (117,)), ('Journal of Transport Geography', 'Urban sprawl and travel to work: the case of the metropolitan area of Madrid', '10.1016/j.jtrangeo.2009.05.012', (112,)), ('Land Use Policy', 'Benefits of pedestrianization and warrants to pedestrianize an area', '10.1016/j.landusepol.2016.05.009', (99,)), ('Sustainable Cities and Society', 'Walkability index across trip purposes', '10.1016/j.scs.2018.07.005', (98,)), ('Safety Science', 'Investigation of clusters and injuries in pedestrian crashes using GIS in Changsha, China', '10.1016/j.ssci.2020.104710', (91,)), ('Transportation Research Procedia', 'City sustainability: the influence of walkability on built environments', '10.1016/j.trpro.2017.05.074', (87,)), ('AEJ - Alexandria Engineering Journal', 'Livable city: An approach to pedestrianization through tactical urbanism', '10.1016/j.aej.2019.02.005', (85,)), ('Cities', 'Perceived security of women in relation to their path choice toward sustainable neighborhood in Santiago, Chile', '10.1016/j.cities.2016.10.002', (79,)), ('Urban Design International', 'Neighborhood design, connectivity assessment and obstruction', '10.1057/udi.2011.14', (78,)), ('Transport Reviews', 'Persistence of walking in Chile: lessons for urban sustainability', '10.1080/01441647.2020.1712494', (77,)), ('Transportation Research Part D: Transport and Environment', 'Walking, cycling and the urban form: A Heckman selection model of active travel mode and distance by young adolescents', '10.1016/j.trd.2016.02.011', (73,)), ('Cities', 'Revisiting car dependency: A worldwide analysis of car travel in global metropolitan areas', '10.1016/j.cities.2021.103467', (72,))]
2-16	Mobility	143	2019.54	brt fuel vehicles emissions transportation traffic energy buses passenger travel	[('Journal of Environmental Psychology', 'The value-belief-norm theory, personal norms and sustainable travel mode choice in urban areas', '10.1016/j.jenvp.2015.06.001', (271,)), ('International Journal of Environmental Research and Public Health', 'Integrating norm activation model and theory of planned behavior to understand sustainable transport behavior: Evidence from China', '10.3390/ijerph14121593', (163,)), ('Transportation Research Part A', 'Determinants of loyalty to public transit: A model integrating Satisfaction-Loyalty Theory and Expectation-Confirmation Theory', '10.1016/j.tra.2018.05.012', (162,)), ('Energy', 'Energy for sustainable road transportation in China: Challenges, initiatives and policy implications', '10.1016/j.energy.2009.05.024', (143,)), ('Renewable and Sustainable Energy Reviews', 'Natural gas as vehicle fuel in China: A review', '10.1016/j.rser.2016.05.015', (115,)), ('International Journal of Urban Sciences', 'Bus rapid transit - a review', '10.1080/12265934.2013.777514', (101,)), ('International Journal of Environmental Research and Public Health', 'Estimating vehicle fuel consumption and emissions using GPS big data', '10.3390/ijerph15040566', (95,)), ('Applied Energy', 'Mapping dynamic road emissions for a megacity by using open-access traffic congestion index data', '10.1016/j.apenergy.2019.114357', (95,)), ('Environmental Research Letters', 'Infrastructure and automobile shifts: Positioning transit to reduce life-cycle environmental impacts for urban sustainability goals', '10.1088/1748-9326/8/1/015041', (89,)), ('Sustainable Cities and Society', 'Impact of transportation network companies on urban congestion: Evidence from large-scale trajectory data', '10.1016/j.scs.2020.102053', (65,)), ('Energy Policy', 'Modelling the transport system in China and evaluating the current strategies towards the sustainable transport development', '10.1016/j.enpol.2013.03.032', (65,)), ('Transportation Research Part D: Transport and Environment', 'The impact of outcome framing and psychological distance of air pollution consequences on transportation mode choice', '10.1016/j.trd.2016.04.012', (62,)), ('IFAC Proceedings Volumes (IFAC-PapersOnline)', 'PV Based Off-Grid Charging Station for Electric Vehicle', '10.1016/j.ifacol.2019.08.211', (62,)), ('Transportation Research Procedia', 'Hydrogen-powered vehicles in urban transport systems-current state and development', '10.1016/j.trpro.2020.02.086', (57,)), ('Journal of Cleaner Production', 'Environmental analysis of different construction techniques and maintenance activities for a typical local road', '10.1016/j.jclepro.2016.10.119', (55,)), ('Sustainability', 'A Review of the Integrated Renewable Energy Systems for Sustainable Urban Mobility', '10.3390/su141710517', (51,)), ('Journal of Cleaner Production', 'Fine-grained analysis on fuel-consumption and emission from vehicles trace', '10.1016/j.jclepro.2018.08.222', (48,)), ('Journal of Cleaner Production', 'Life cycle analysis based comprehensive environmental performance evaluation of Mumbai Suburban Railway, India', '10.1016/j.jclepro.2018.04.022', (47,)), ('Transportation', 'Service quality, satisfaction and behavioral intentions towards public transport from the point of view of private vehicle users', '10.1007/s11116-021-10175-7', (47,)), ('Cities', 'Data-enabled public preferences inform integration of autonomous vehicles with transit-oriented development in Atlanta', '10.1016/j.cities.2017.01.004', (47,))]

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2-15	Mobility	165	2019.31	students university campus travel commuting school transport mode choice trips	[('Geoforum', 'Cultures of mothering and car use in suburban Sydney: A preliminary investigation', '10.1016/S0016-7185(99)00048-2', (200,)), ('Urban Studies', 'Encouraging walking: The case of journey-to-school trips in compact urban areas', '10.1080/00420980124102', (186,)), ('Transport Policy', 'Sustainable transport challenges in a suburban university: The case of the Autonomous University of Barcelona', '10.1016/j.tranpol.2010.04.012', (126,)), ('Case Studies on Transport Policy', 'Modeling travel choices of students at a private, urban university: Insights and policy implications', '10.1016/j.cstp.2014.08.006', (121,)), ('Gender, Place & Culture', 'A gender analysis of everyday mobility in urban and rural territories: from challenges to sustainability', '10.1080/0966369X.2015.1013448', (100,)), ('Urban Studies', 'The politics of land supply and affordable housing: Auckland's Housing Accord and Special Housing Areas', '10.1177/0042098015594574', (63,)), ('Journal of Transport and Health', 'Enrolling in the Closest School or Not? Implications of school choice decisions for active transport to school', '10.1016/j.jth.2017.05.006', (61,)), ('International Journal of Sustainable Transportation', "Can the built environment explain gender gap in cycling? An exploration of university students' travel behavior in Toronto, Canada", '10.1080/15568318.2018.1449919', (59,)), ('International Journal of Sustainability in Higher Education', 'Students' mobility attitudes and sustainable transport mode choice', '10.1108/IJSHE-08-2017-0134', (58,)), ('Journal of Transport Geography', 'Household decision-making for everyday travel: A case study of walking and cycling in Lancaster (UK)', '10.1016/j.jtrangeo.2011.03.010', (57,)), ('Habitat International', 'Measuring the associations between eye-level urban design quality and on-street crime density around New York subway entrances', '10.1016/j.habitatint.2022.102728', (51,)), ('Transport Policy', 'Commuting to college: The effectiveness and social efficiency of transportation demand management policies', '10.1016/j.tranpol.2015.08.001', (48,)), ('Journal of Environmental Planning and Management', "Commuting lives: Children's mobility and energy use", '10.1080/09640560802703280', (44,)), ('Acta Geographica Sinica', 'Impact of urban built environment on residential choice of commuting mode in Shanghai', '10.11821/dlxb201510010', (44,)), ('Journal of Transport and Health', 'A cross sectional survey of attitudes, behaviours, barriers and motivators to cycling in University students', '10.1016/j.jth.2017.07.005', (42,)), ('Journal of Transport Geography', 'The greenhouse gas mitigation potential of university commuting: A case study of the University of León (Spain)', '10.1016/j.jtrangeo.2019.102550', (39,)), ('Transportation', 'An integrated assessment of factors affecting modal choice: towards a better understanding of the causal effects of built environment', '10.1007/s11116-017-9767-1', (39,)), ('Transportation Research Part A', 'Choice of transport mode in emerging adulthood: Differences between secondary school students, studying young adults and working young adults and relations with gender, SES and living environment', '10.1016/j.tra.2017.05.016', (36,)), ('Journal of Transport and Land Use', 'The influence of land use and mobility policy on travel behavior: A comparative case study of flanders and the netherlands', '10.5198/jtlu.2015.709', (34,)), ('Sustainability', 'Do urban subway openings reduce PM concentrations? Evidence from China', '10.3390/su10114147', (34,))]
2-12	Mobility	226	2019.21	rail network transit resilience traffic metro vulnerability subway cascading transport	[('Safety Science', 'Robustness assessment of urban rail transit based on complex network theory: A case study of the Beijing Subway', '10.1016/j.ssci.2015.06.006', (286,)), ('Sustainable Cities and Society', 'Urban Transportation Networks Resilience: Indicators, Disturbances, and Assessment Methods', '10.1016/j.scs.2021.103452', (187,)), ('IEEE Intelligent Transportation Systems Magazine', 'Autonomous vehicle-intersection coordination method in a connected vehicle environment', '10.1109/MITS.2017.2743167', (153,)), ('PLoS ONE', 'Network centrality of metro systems', '10.1371/journal.pone.0040575', (152,)), ('Transportation Research Part C', 'Sustainability assessments of cooperative vehicle intersection control at an urban corridor', '10.1016/j.trc.2012.09.004', (145,)), ('Sustainable Cities and Society', 'Analysis and interpretation of the particulate matter (PM10 and PM2.5) concentrations at the subway stations in Beijing, China', '10.1016/j.scs.2018.11.020', (98,)), ('Transport Policy', "Transportation issues in developing China's urban agglomerations", '10.1016/j.tranpol.2019.09.007', (96,)), ('Resources, Conservation and Recycling', 'Towards a low carbon transition of urban public transport in megacities: A case study of Shenzhen, China', '10.1016/j.resconrec.2018.03.011', (83,)), ('Applied Energy', 'A data-driven method of traffic emissions mapping with land use random forest models', '10.1016/j.apenergy.2021.117916', (83,)), ('Computers, Environment and Urban Systems', 'Agent-based modeling to estimate exposures to urban air pollution from transportation: Exposure disparities and impacts of high-resolution data', '10.1016/j.compenvurbsys.2019.01.002', (81,)), ('Journal of Transportation Engineering', 'Sustainability and urban public transportation', '10.1061/(ASCE)0733-947X(2003)129:4(331)', (79,)), ('Energy Policy', 'Can urban rail transit curb automobile energy consumption?', '10.1016/j.enpol.2017.02.038', (69,)), ('Physica A: Statistical Mechanics and its Applications', 'Exploring the resilience assessment framework of urban road network for sustainable cities', '10.1016/j.physa.2021.126465', (68,)), ('Journal of Cleaner Production', 'Evaluating the dynamic resilience of the multi-mode public transit network for sustainable transport', '10.1016/j.jclepro.2022.131350', (65,)), ('Sustainability', 'Using an AHP-ISM based method to study the vulnerability factors of urban rail transit system', '10.3390/su9061065', (63,)), ('Energy Policy', 'Urban public transport and air quality: Empirical study of China cities', '10.1016/j.enpol.2019.110998', (61,)), ('Journal of Cleaner Production', 'Exploring the robustness of public transportation for sustainable cities: A double-layered network perspective', '10.1016/j.jclepro.2020.121747', (56,)), ('Transport Reviews', 'Space-time constructs for linking information and communication technologies with issues in sustainable transportation', '10.1080/0144164042000292452', (55,)), ('Mathematical Problems in Engineering', 'Analysis of public bus transportation of a Brazilian city based on the theory of complex networks using the P-space', '10.1155/2016/3898762', (52,)), ('Renewable and Sustainable Energy Reviews', 'Towards decarbonizing road transport: Environmental and social benefit of vehicle fleet electrification in urban areas of Greece', '10.1016/j.rser.2021.111775', (50,))]
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2-14	Mobility	204	2018.41	transportation rail transit network traffic energy braking bus optimization algorithm	[('Energy Conversion and Management', 'Sustainable urban rail systems: Strategies and technologies for optimal management of regenerative braking energy', '10.1016/j.enconman.2013.06.039', (400,)), ('PLoS ONE', 'Variability in regularity: Mining temporal mobility patterns in London, Singapore and Beijing using smart-card data', '10.1371/journal.pone.0149222', (177,)), ('Networks and Spatial Economics', 'Sustainability SI: Optimal Prices of Electricity at Public Charging Stations for Plug-in Electric Vehicles', '10.1007/s11067-013-9212-8', (147,)), ('Applied Energy', 'Efficiency, cost and life cycle CO optimization of fuel cell hybrid and plug-in hybrid urban buses', '10.1016/j.apenergy.2014.05.015', (128,)), ('Transportation Research Part D: Transport and Environment', 'Electric vehicle fast charging infrastructure planning in urban networks considering daily travel and charging behavior', '10.1016/j.trd.2021.102769', (125,)), ('International Journal of Environmental Research and Public Health', 'Work environment, stress, and driving anger: A structural equation model for predicting traffic sanctions of public transport drivers', '10.3390/ijerph15030497', (111,)), ('Transportation Research Part A', 'Sustainable urban transit network design', '10.1016/j.tra.2015.04.024', (108,)), ('IEEE Transactions on Intelligent Transportation Systems', 'Evaluating Electric Bus Operation for a Real-World BRT Public Transportation Using Simulation Optimization', '10.1109/TITS.2016.2525800', (106,)), ('Electric Power Systems Research', 'Energy management in metro-transit systems: An innovative proposal toward an integrated and sustainable urban mobility system including plug-in electric vehicles', '10.1016/j.epsr.2011.08.004', (100,)), ('Computer-Aided Civil and Infrastructure Engineering', 'Integrated Train Timetabling and Rolling Stock Scheduling Model Based on Time-Dependent Demand for Urban Rail Transit', '10.1111/mice.12300', (99,)), ('International Journal of Sustainable Transportation', 'Environmentally sustainable toll design for congested road networks with uncertain demand', '10.1080/15568318.2011.570101', (87,)), ('Public Works Management and Policy', 'Immigrants and travel demand in the united states: Implications for transportation policy and future research', '10.1177/1087724X09334633', (82,)), ('Energies', 'Energy consumption of a battery electric vehicle with infinitely variable transmission', '10.3390/en7128317', (77,)), ('Cities', 'Analysing the spatial configuration of urban bus networks based on the geospatial network analysis method', '10.1016/j.cities.2019.102406', (74,)), ('Applied Energy', 'GIS aided sustainable urban road management with a unifying queueing and neural network model', '10.1016/j.apenergy.2021.116818', (72,)), ('Environment and Planning B: Planning and Design', 'Multiobjective network design for emission and travel-time trade-off for a sustainable large urban transportation network', '10.1068/b37018', (69,)), ('Transportation Research Part E: Logistics and Transportation Review', 'Optimal design of sustainable transit systems in congested urban networks: A macroscopic approach', '10.1016/j.tre.2017.03.006', (67,)), ('Transportation Research Part E: Logistics and Transportation Review', 'Joint optimisation of transfer location and capacity for a capacitated multimodal transport network with elastic demand: a bi-level programming model and paradoxes', '10.1016/j.tre.2021.102540', (66,)), ('Transportation Research Part D: Transport and Environment', 'Multi-criteria analysis of optimal signal plans using microscopic traffic models', '10.1016/j.trd.2014.06.013', (60,)), ('Island Studies Journal', 'Competing notions of diversity in archipelago tourism: Transport logistics, official rhetoric and inter-island Rivalry in the Azores', '10.24043/isj.278', (58,))]
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2-1	Mobility	782	2017.71	transport transportation mobility indicators public criteria traffic bus sustainability decision	[('Transport Policy', 'Quality attributes of public transport that attract car users: A research review', '10.1016/j.tranpol.2012.11.005', (609,)), ('Sustainability', 'Sustainable urban transport in the developing world: Beyond megacities', '10.3390/su7067784', (409,)), ('Research in Transportation Economics', 'Part II: Policy instruments for sustainable road transport', '10.1016/j.retrec.2010.03.002', (320,)), ('Technology in Society', 'Sustainable urban transport: Four innovative directions', '10.1016/j.techsoc.2005.10.007', (317,)), ('Transportation Research Part D: Transport and Environment', 'Public transportation access', '10.1016/S1361-9209(98)00010-8', (288,)), ('Ecological Indicators', 'Urban sustainable transportation indicators for global comparison', '10.1016/j.ecolind.2011.09.010', (276,)), ('Journal of Cleaner Production', 'Green transportation for sustainability: Review of current barriers, strategies, and innovative technologies', '10.1016/j.jclepro.2021.129392', (228,)), ('Transportation Research Part A', 'Getting smart about urban mobility – Aligning the paradigms of smart and sustainable', '10.1016/j.tra.2016.12.001', (217,)), ('Transportation Research Part A', 'Multi-criteria approach for the selection of alternative options for environmentally sustainable transport system in Delhi', '10.1016/S0965-8564(03)00027-2', (209,)), ('Journal of Urban Planning and Development', 'Sustainable urban transportation: Performance indicators and some analytical approaches', '10.1061/(ASCE)0733-9488(2002)128:4(184)', (188,)), ('Transport Reviews', 'The four pillars of sustainable urban transportation', '10.1080/01441640500115835', (178,)), ('Journal of Cleaner Production', 'Does the service quality of urban public transport enhance sustainable mobility?', '10.1016/j.jclepro.2017.11.052', (175,)), ('Jiaotong Yunshu Xitong Gongcheng Yu Xinxi/ Journal of Transportation Systems Engineering and Information Technology', 'System dynamics model of urban transportation system and its application', '10.1016/s1570-6672(08)60027-6', (165,)), ('Transportation Research Part D: Transport and Environment', 'Scenario building as a tool for planning a sustainable transportation system', '10.1016/S1361-9209(03)00020-8', (160,)), ('Research in Transportation Economics', 'Implementation of sustainable urban transport in Latin America', '10.1016/j.retrec.2012.06.034', (159,)), ('International Journal of Sustainable Transportation', 'Toward socially sustainable urban transportation: Progress and potentials', '10.1080/15568310701517265', (153,)), ('Ecological Indicators', 'Transport sustainability index: Melbourne case study', '10.1016/j.ecolind.2014.03.004', (153,)), ('Journal of Transport Geography', 'Sustainable transportation: A US perspective', '10.1016/0966-6923(96)00020-8', (152,)), ('Annals of Operations Research', 'Multi-criteria approaches for urban passenger transport systems: a literature review', '10.1007/s10479-014-1681-8', (146,)), ('Applied Energy', 'Urban transportation energy and carbon dioxide emission reduction strategies', '10.1016/j.apenergy.2015.01.126', (143,))]

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2-7	Mobility	521	2016.72	accessibility transport travel commuting transportation car land public emissions use	[('Nature', 'A global map of travel time to cities to assess inequalities in accessibility in 2015', '10.1038/nature25181', (865,)), ('Transport Policy', 'Sustainable accessibility: A conceptual framework to integrate transport and land use plan-making. Two test-applications in the Netherlands and a reflection on the way forward', '10.1016/j.tranpol.2005.01.006', (395,)), ('Habitat International', 'Sustainable urban expansion and transportation in a growing megacity: Consequences of urban sprawl for mobility on the urban fringe of Beijing', '10.1016/j.habitatint.2009.09.008', (352,)), ('Progress in Planning', 'Planning for sustainable accessibility: Developing tools to aid discussion and decision-making', '10.1016/j.progress.2010.05.001', (243,)), ('Environment and Planning B: Planning and Design', 'Sustainable cities: Transport, energy, and urban form', '10.1068/b240125', (240,)), ('Journal of Transport Geography', 'Modelling travel time in urban networks: Comparable measures for private car and public transport', '10.1016/j.jtrangeo.2013.06.011', (229,)), ('Professional Geographer', 'Spatial dimensions of urban commuting: A review of major issues and their implications for future geographic research', '10.1111/j.0033-0124.2004.05602002.x', (206,)), ('Applied Geography', 'Inequality of public health and its role in spatial accessibility to medical facilities in China', '10.1016/j.apgeog.2018.01.011', (195,)), ('Environment and Planning A', 'Extensions to the concept of excess commuting', '10.1068/a34126', (191,)), ('Urban Studies', 'Commuting inequality between cars and public transit: The case of the San Francisco Bay Area, 1990-2000', '10.1080/00420980701426616', (180,)), ('Habitat International', "Examining the impacts of socio-economic factors, urban form and transportation development on CO emissions from transportation in China: A panel data analysis of China's provinces", '10.1016/j.habitatint.2015.05.030', (170,)), ('Housing Studies', 'House prices and accessibility: The testing of relationships within the Belfast Urban Area', '10.1080/02673030050134565', (164,)), ('Professional Geographer', 'Social exclusion and the disabled: An accessibility approach', '10.1111/j.1467-9272.2007.00635.x', (159,)), ('Environmental Impact Assessment Review', 'Automobile dependence in cities: An international comparison of urban transport and land use patterns with implications for sustainability', '10.1016/S0195-9255(96)00023-6', (155,)), ('ISPRS International Journal of Geo-Information', 'Transport accessibility analysis using GIS: Assessing sustainable transport in London', '10.3390/ijgi4010124', (146,)), ('Transport Policy', 'Planning for sustainable accessibility: The implementation challenge', '10.1016/j.tranpol.2007.10.003', (142,)), ('Annals of Regional Science', 'Public transport versus private car GIS-based estimation of accessibility applied to the Tel Aviv metropolitan area', '10.1007/s00168-010-0392-6', (139,)), ('Environment and Planning A', 'Urban development without more mobility by car? Lessons from Amsterdam, a multimodal urban region', '10.1068/a3592', (130,)), ('International Journal of Sustainable Transportation', 'Key research themes on urban space, scale, and sustainable urban mobility', '10.1080/15568318.2013.820998', (129,)), ('Transportation Research Part D: Transport and Environment', 'Exploring the influence of built environment on tour-based commuter mode choice: A cross-classified multilevel modeling approach', '10.1016/j.trd.2014.08.001', (119,))]
3-1	Water	856	2020.72	flood sponge lid stormwater suds nbs gi bgi runoff drainage	[('Journal of Environmental Management', 'The effects of low impact development on urban flooding under different rainfall characteristics', '10.1016/j.jenvman.2013.08.026', (479,)), ('Land Use Policy', '"Sponge City" in China—A breakthrough of planning and flood risk management in the urban context', '10.1016/j.landusepol.2018.03.005', (479,)), ('Environmental Science and Policy', "Urban pluvial flooding and stormwater management: A contemporary review of China's challenges and “sponge cities” strategy", '10.1016/j.envsci.2017.11.016', (383,)), ('Science China Earth Sciences', 'Opportunities and challenges of the Sponge City construction related to urban water issues in China', '10.1007/s11430-016-0111-8', (382,)), ('Urban Ecosystems', 'The urban watershed continuum: Evolving spatial and temporal dimensions', '10.1007/s11252-012-0226-7', (363,)), ('Sustainable Cities and Society', 'Low impact development techniques to mitigate the impacts of climate-change-induced urban floods: Current trends, issues and challenges', '10.1016/j.scs.2020.102373', (310,)), ('Journal of Hydrology', 'Urban flood resilience – A multi-criteria index to integrate flood resilience into urban planning', '10.1016/j.jhydrol.2018.06.052', (303,)), ('Water Research', 'Enhancing future resilience in urban drainage system: Green versus grey infrastructure', '10.1016/j.watres.2017.07.038', (301,)), ('Journal of Environmental Management', 'Assessing the Co-Benefits of green-blue-grey infrastructure for sustainable urban flood risk management', '10.1016/j.jenvman.2019.03.036', (279,)), ('Natural Hazards and Earth System Sciences', 'Nature-based solutions for hydro-meteorological risk reduction: a state-of-the-art review of the research area', '10.5194/nhess-20-243-2020', (272,)), ('Environmental Science and Policy', "China's water security: Current status, emerging challenges and future prospects", '10.1016/j.envsci.2015.06.006', (261,)), ('Water (Switzerland)', 'Review and research needs of bioretention used for the treatment of urban stormwater', '10.3390/w6041069', (244,)), ('Cities', 'Green infrastructure for sustainable urban water management: Practices of five forerunner cities', '10.1016/j.cities.2017.11.013', (242,)), ('Global Challenges', 'Reliable, resilient and sustainable water management: the Safe & SuRe approach', '10.1002/gch2.1010', (241,)), ('Wiley Interdisciplinary Reviews: Water', 'Pluvial flood risk and opportunities for resilience', '10.1002/wat2.1302', (216,)), ('Resources, Conservation and Recycling', 'Public perceptions of and willingness to pay for sponge city initiatives in China', '10.1016/j.resconrec.2017.02.002', (212,)), ('Building and Environment', 'Planning support system for climate adaptation: Composing effective sets of blue-green measures to reduce urban vulnerability to extreme weather events', '10.1016/j.buildenv.2014.07.018', (210,)), ('Frontiers of Environmental Science and Engineering', 'China’s sponge city construction: A discussion on technical approaches', '10.1007/s11783-017-0984-9', (204,)), ('JAWRA Journal of the American Water Resources Association', 'Simulation of combined best management practices and low impact development for sustainable stormwater management', '10.1111/j.1752-1688.2010.00462.x', (203,)), ('Journal of Hydrology', 'The impacts of climate change and urbanisation on drainage in Helsingborg, Sweden: Suburban stormwater', '10.1016/j.jhydrol.2007.11.006', (200,))]
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3-18	Water	110	2018.79	deltas delta water groundwater sediment agent basin gbm resources wsi	[('Science of the Total Environment, The', 'Urbanisation and emerging economies: Issues and potential solutions for water and food security', '10.1016/j.scitotenv.2020.139057', (166,)), ('Principles of Tidal Sedimentology', 'Tide-dominated deltas', '10.1007/978-94-007-0123-6_7', (129,)), ('Resources, Conservation and Recycling', 'Sustainable urban infrastructure: A review', '10.1016/j.resconrec.2016.07.017', (108,)), ('Water Resources Management', 'Impact of Urbanization on the Hydrology of Ganga Basin (India)', '10.1007/s11269-010-9722-9', (104,)), ('Nature Reviews Earth and Environment', 'Geomorphic change in the Ganges–Brahmaputra–Meghna delta', '10.1038/s43017-021-00213-4', (88,)), ('Sustainable Cities and Society', 'Agent-based modeling to simulate the dynamics of urban water supply: Climate, population growth, and water shortages', '10.1016/j.scs.2016.10.001', (88,)), ('Nature Sustainability', 'Sea-level rise from land subsidence in major coastal cities', '10.1038/s41893-022-00947-z', (87,)), ('Sustainability Science', 'An assessment of urban vulnerability in the Amazon Delta and Estuary: a multi-criterion index of flood exposure, socio-economic conditions and infrastructure', '10.1007/s11625-016-0355-7', (84,)), ('Science of the Total Environment, The', 'Conceptualizing the role of sediment in sustaining ecosystem services: Sediment-ecosystem regional assessment (SEcoRA)', '10.1016/j.scitotenv.2011.05.060', (82,)), ('Journal of Water Resources Planning and Management', 'Complex adaptive systems framework to assess supply-side and demand-side management for urban water resources', '10.1061/(ASCE)WR.1943-5452.0000301', (77,)), ('Aquatic Ecosystem Health and Management', 'Sustainable utilization and management of Mangrove ecosystems of Malaysia', '10.1080/14634980600717084', (70,)), ('Sustainability', 'Household smart water metering in Spain: Insights from the experience of remote meter reading in alicante', '10.3390/su9040582', (69,)), ('Journal of Water Resources Planning and Management', 'Complex adaptive systems approach to simulate the sustainability of water resources and urbanization', '10.1061/(ASCE)WR.1943-5452.0000302', (68,)), ('Environmental Research Letters', 'Developed river deltas: Are they sustainable?', '10.1088/1748-9326/ab4165', (63,)), ('Sustainability Science', 'A conceptual framework for analyzing deltas as coupled social–ecological systems: an example from the Amazon River Delta', '10.1007/s11625-016-0368-2', (59,)), ('Natural Hazards', 'Community perception, response and adaptation strategies towards flood risk in a traditional African city', '10.1007/s11069-020-04052-2', (59,)), ('Sustainable Cities and Society', 'An agent-based conflict resolution model for urban water resources management', '10.1016/j.scs.2020.102112', (57,)), ('Sustainable Cities and Society', 'A coupled agent-based risk-based optimization model for integrated urban water management', '10.1016/j.scs.2019.101922', (52,)), ('Journal of Environmental Planning and Management', 'An analytical framework for strategic delta planning: negotiating consent for long-term sustainable delta development', '10.1080/09640568.2016.1231667', (49,)), ('Science of the Total Environment, The', 'Scenario analysis for sustainable development of Chongming Island: Water resources sustainability', '10.1016/j.scitotenv.2012.09.031', (49,))]
3-4	Water	512	2018.79	groundwater aquifer recharge water aquifers wells mar quality samples nitrate	[('Marine Pollution Bulletin', 'An ANN application for water quality forecasting', '10.1016/j.marpolbul.2008.05.021', (462,)), ('Philosophical Transactions of the Royal Society B: Biological Sciences', 'Groundwater: The processes and global significance of aquifer degradation', '10.1098/rstb.2003.1380', (432,)), ('Environmental Research Letters', 'Non-renewable groundwater use and groundwater depletion: A review', '10.1088/1748-9326/ab1a5f', (414,)), ('Science of the Total Environment, The', 'A review of threats to groundwater quality in the anthropocene', '10.1016/j.scitotenv.2019.05.236', (365,)), ('Current Science', 'Water resources and climate change: An Indian perspective', 'NO DOI', (309,)), ('Journal of Cleaner Production', 'Hydrogeochemical characterization and quality assessment of groundwater based on integrated-weight water quality index in a concentrated urban area', '10.1016/j.jclepro.2020.121006', (302,)), ('Hydrogeology Journal', 'Quaternary aquifer of the North China Plain - Assessing and achieving groundwater resource sustainability', '10.1007/s10040-003-0300-6', (239,)), ('Water Research', 'Assessing groundwater quality for drinking water supply using hybrid fuzzy-GIS-based water quality index', '10.1016/j.watres.2020.115867', (230,)), ('Groundwater for Sustainable Development', 'Hydrogeochemical investigation of groundwater quality in the hard rock terrain of South India using Geographic Information System (GIS) and groundwater quality index (GWQI) techniques', '10.1016/j.gsd.2019.100288', (222,)), ('Hydrology and Earth System Sciences', 'Recent trends in groundwater levels in a highly seasonal hydrological system: The Ganges-Brahmaputra-Meghna Delta', '10.5194/hess-13-2373-2009', (217,)), ('Hydrogeology Journal', 'Introductory review of specific factors influencing urban groundwater, an emerging branch of hydrogeology, with reference to Barcelona, Spain', '10.1007/s10040-004-0360-2', (213,)), ('Science of the Total Environment, The', 'Groundwater depletion and contamination: Spatial distribution of groundwater resources sustainability in China', '10.1016/j.scitotenv.2019.03.457', (213,)), ('Journal of Hydrology', 'Agricultural water-saving and sustainable groundwater management in Shijiazhuang Irrigation District, North China Plain', '10.1016/j.jhydrol.2010.08.017', (203,)), ('Hydrology and Earth System Sciences', 'The Indus basin in the framework of current and future water resources management', '10.5194/hess-16-1063-2012', (189,)), ('Chemosphere', 'Predictive modeling of groundwater nitrate pollution and evaluating its main impact factors using random forest', '10.1016/j.chemosphere.2021.133388', (180,)), ('Hydrogeology Journal', 'The impact of intensive groundwater abstraction on recharge to a shallow regional aquifer system: Evidence from Bangladesh', '10.1007/s10040-011-0723-4', (177,)), ('Environmental Pollution', 'Identification and apportionment of shallow groundwater nitrate pollution in Weining Plain, northwest China, using hydrochemical indices, nitrate stable isotopes, and the new Bayesian stable isotope mixing model (MixSIAR)', '10.1016/j.envpol.2022.118852', (170,)), ('Current Opinion in Environmental Sustainability', "Groundwater-a global focus on the 'local resource'", '10.1016/j.cosust.2013.10.010', (167,)), ('Sustainable Water Resources Management', 'Mapping of groundwater potential zones in Killinochi area, Sri Lanka, using GIS and remote sensing techniques', '10.1007/s40899-016-0072-5', (161,)), ('Human and Ecological Risk Assessment (HERA)', 'Groundwater quality and associated health risks in a semi-arid region of south India: Implication to sustainable groundwater management', '10.1080/10807039.2018.1546550', (160,))]
3-11	Water	267	2018.66	stormwater runoff water biochar drainage wsud removal storm suds lid	[('International Journal of Environmental Science and Technology', 'Mechanisms and adsorption capacities of biochar for the removal of organic and inorganic pollutants from industrial wastewater', '10.1007/s13762-020-03060-w', (591,)), ('Water Research', 'Key issues for sustainable urban stormwater management', '10.1016/j.watres.2012.05.029', (500,)), ('Environmental Management', 'Impediments and solutions to sustainable, watershed-scale urban stormwater management: Lessons from Australia and the United States', '10.1007/s00267-008-9119-1', (497,)), ('Journal of Environmental Management', 'Managing urban stormwater for urban sustainability: Barriers and policy solutions for green infrastructure application', '10.1016/j.jenvman.2017.07.065', (270,)), ('Sustainability', 'The Role of ConstructedWetlands as Green Infrastructure for Sustainable Urban Water Management', '10.3390/su11246981', (247,)), ('Urban Studies', 'Supply, Demand and the Value of Green Buildings', '10.1177/0042098013484526', (195,)), ('Journal of Hydrology', "Sustainable urban stormwater management in the tropics: An evaluation of Singapore's ABC Waters Program", '10.1016/j.jhydrol.2016.04.063', (140,)), ('Environmental Science: Water Research and Technology', 'Hydrophilic trace organic contaminants in urban stormwater: Occurrence, toxicological relevance, and the need to enhance green stormwater infrastructure', '10.1039/c9ew00674e', (136,)), ('Wiley Interdisciplinary Reviews: Water', 'Management of stormwater pollution using green infrastructure: The role of rain gardens', '10.1002/wat2.1507', (112,)), ('Molecules', 'Light-assisted advanced oxidation processes for the elimination of chemical and microbiological pollution of wastewaters in developed and developing countries', '10.3390/molecules22071070', (110,)), ('Journal of Environmental Management', 'Comparison of filter media materials for heavy metal removal from urban stormwater runoff using biofiltration systems', '10.1016/j.jenvman.2014.04.042', (110,)), ('Environmental Earth Sciences', 'Land subsidence susceptibility assessment using random forest machine learning algorithm', '10.1007/s12665-019-8518-3', (108,)), ('Water (Switzerland)', 'Riverside Landslide Susceptibility Overview: Leveraging Artificial Neural Networks and Machine Learning in Accordance with the United Nations (UN) Sustainable Development Goals', '10.3390/w15152707', (106,)), ('Bioresource Technology', 'Recent advances in microalgae-based remediation of industrial and non-industrial wastewaters with simultaneous recovery of value-added products', '10.1016/j.biortech.2021.126129', (104,)), ('Journal of Hazardous Materials', 'Waste-derived compost and biochar amendments for stormwater treatment in bioretention column: Co-transport of metals and colloids', '10.1016/j.jhazmat.2019.121243', (100,)), ('Water Environment Research', 'Sustainable oil and grease removal from synthetic stormwater runoff using bench-scale bioretention studies', '10.2175/106143005X89607', (99,)), ('The Singapore Water Story: Sustainable Development in an Urban City State', 'The Singapore water story: Sustainable development in an urban city state', '10.4324/9780203076491', (94,)), ('Sustainability', 'The green experiment: Cities, green stormwater infrastructure, and sustainability', '10.3390/su9010105', (93,)), ('Chemosphere', 'The carbon-sequestration potential of municipal wastewater treatment', '10.1016/j.chemosphere.2007.08.057', (90,)), ('Water Science and Technology', 'Biocides used in building materials and their leaching behavior to sewer systems', '10.2166/wst.2007.807', (84,))]

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3-17	Water	111	2018.32	flood restoration floods flooding janeiro drainage risk rio river liudd	[('Geophysical Research Letters', 'Flood fatalities in Africa: From diagnosis to mitigation', '10.1029/2010GL045467', (341,)), ('Ecological Engineering', 'Ecological engineering: A field whose time has come', '10.1016/j.ecoleng.2003.05.001', (276,)), ('Ecological Engineering', 'What is ecological engineering?', '10.1016/j.ecoleng.2012.04.013', (261,)), ('Journal of Environmental Management', 'International evolution of fat, oil and grease (FOG) waste management – A review', '10.1016/j.jenvman.2016.11.003', (188,)), ('Environment and Planning B: Urban Analytics and City Science', 'A catchment scale Integrated Flood Resilience Index to support decision making in urban flood control design', '10.1177/0265813516655799', (97,)), ('Current Science', 'Urban floods in Bangalore and Chennai: Risk management challenges and lessons for sustainable urban ecology', 'NO DOI', (96,)), ('Land Use Policy', 'Implications of land use transitions and climate change on local flooding in urban areas: An assessment of 42 Indian cities', '10.1016/j.landusepol.2020.104571', (91,)), ('Ecology and Society', 'Biophysical and sociocultural factors underlying spatial trade-offs of ecosystem services in semiarid watersheds', '10.5751/ES-07785-200339', (81,)), ('Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences', 'Challenges in developing urban flood resilience in India', '10.1098/rsta.2019.0211', (76,)), ('Natural Hazards and Earth System Sciences', 'A quantitative flood risk analysis methodology for urban areas with integration of social research data', '10.5194/nhess-12-2843-2012', (64,)), ('International Journal of Disaster Risk Reduction', 'Flood exposure analysis of road infrastructure – Comparison of different methods at national level', '10.1016/j.ijdrr.2020.101548', (59,)), ('Sustainability', 'Urban floods in lowlands-levee systems, unplanned urban growth and river restoration alternative: A case study in Brazil', '10.3390/su70811068', (49,)), ('Ecology and Society', 'Enhancing ecosystem services for flood mitigation: A conservation strategy for peri-urban landscapes?', '10.5751/ES-06482-190254', (49,)), ('Journal of Urban Planning and Development', 'City growth and urban drainage alternatives: Sustainability challenge', '10.1061/(ASCE)UP.1943-5444.0000219', (46,)), ('Urban Sustainability and River Restoration: Green and Blue Infrastructure', 'Urban sustainability and river restoration: Green and blue infrastructure', '10.1002/9781119245025', (45,)), ('Journal of Water Resources Planning and Management', 'Integrated methodology for urban flood risk mitigation in Cittanova, Italy', '10.1061/(ASCE)WR.1943-5452.0000985', (45,)), ('Journal of Cleaner Production', 'Land as a sustainable resource in city planning: The use of open spaces and drainage systems to structure environmental and urban needs', '10.1016/j.jclepro.2020.123096', (39,)), ('Earth Systems and Environment', 'Urban Flooding in the Northern Part of Kabul City: Causes and Mitigation', '10.1007/s41748-020-00165-7', (39,)), ('Sustainability', 'Evaluating dual ecological and well-being benefits from an urban restoration project', '10.3390/su12020695', (34,)), ('Journal of Cleaner Production', 'A framework to support flood prevention and mitigation in the landscape and urban planning process regarding water dynamics', '10.1016/j.jclepro.2020.122983', (33,))]
3-7	Water	410	2018.23	water groundwater drought consumption demand supply irrigation climate scarcity use	[('Proceedings of the National Academy of Sciences of the United States of America', 'Urban growth, climate change, and freshwater availability', '10.1073/pnas.1011615108', (614,)), ('Journal of Hydrology', 'A wavelet neural network conjunction model for groundwater level forecasting', '10.1016/j.jhydrol.2011.06.013', (578,)), ('Computer-Aided Civil and Infrastructure Engineering', 'Multicriteria planning of post-earthquake sustainable reconstruction', '10.1111/1467-8667.00269', (535,)), ('Nature Communications', 'South-to-North Water Diversion stabilizing Beijing's groundwater levels', '10.1038/s41467-020-17428-6', (434,)), ('Water Resources Research', 'Comparison of multiple linear and nonlinear regression, autoregressive integrated moving average, artificial neural network, and wavelet artificial neural network methods for urban water demand forecasting in Montreal, Canada', '10.1029/2010WR009945', (431,)), ('Journal of Hydrology', 'Stream-flow forecasting using extreme learning machines: A case study in a semi-arid region in Iraq', '10.1016/j.jhydrol.2016.09.035', (298,)), ('Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences', 'Growing water scarcity in agriculture: Future challenge to global water security', '10.1098/rsta.2012.0410', (263,)), ('Journal of Hydrologic Engineering', 'Comparison of multivariate regression and artificial neural networks for peak urban water-demand forecasting: Evaluation of different ANN learning algorithms', '10.1061/(ASCE)HE.1943-5584.0000245', (228,)), ('Water Research', 'The role of deep learning in urban water management: A critical review', '10.1016/j.watres.2022.118973', (227,)), ('Environmental Science and Pollution Research', 'The ability of biologically based wastewater treatment systems to remove emerging organic contaminants—a review', '10.1007/s11356-013-2448-5', (211,)), ('Science of the Total Environment, The', 'Urban drought challenge to 2030 sustainable development goals', '10.1016/j.scitotenv.2019.07.342', (198,)), ('Applied Soft Computing', 'Fuzzy MCDM approach for selecting the best environment-watershed plan', '10.1016/j.asoc.2009.11.017', (166,)), ('Society and Natural Resources', 'Household water consumption in an arid city: Affluence, affordance, and attitudes', '10.1080/08941920802064679', (165,)), ('Proceedings of the National Academy of Sciences of the United States of America', 'Roadmap for sustainable water resources in southwestern North America', '10.1073/pnas.1005473107', (159,)), ('Journal of Water Resources Planning and Management', 'Peak daily water demand forecast modeling using artificial neural networks', '10.1061/(ASCE)0733-9496(2008)134:2(119)', (153,)), ('Global and Planetary Change', 'A global perspective on changing sustainable urban water supplies', '10.1016/j.gloplacha.2006.01.004', (150,)), ('Agricultural Water Management', 'Simulation-optimization modeling for conjunctive water use management', '10.1016/j.agwat.2014.04.003', (147,)), ('Journal of Hydrology', 'Wavelet-entropy data pre-processing approach for ANN-based groundwater level modeling', '10.1016/j.jhydrol.2015.02.048', (145,)), ('Resources, Conservation and Recycling', 'Alarming visual display monitors affecting shower end use water and energy conservation in Australian residential households', '10.1016/j.resconrec.2010.03.004', (145,)), ('Journal of Cleaner Production', 'Historical assessment and future sustainability challenges of Egyptian water resources management', '10.1016/j.jclepro.2020.121154', (133,))]
3-14	Water	155	2018.05	water river sewer drainage wastewater pollution quality climate flood flooding	[('Environmental Management', 'Contribution of wastewater treatment plant effluents to nutrient dynamics in aquatic systems', '10.1007/s00267-009-9309-5', (452,)), ('Journal of Hydrology', 'The impacts of climate change and urbanisation on drainage in Helsingborg, Sweden: Combined sewer system', '10.1016/j.jhydrol.2007.05.028', (296,)), ('Catena', 'Water quality in relation to land use and land cover in the upper Han River Basin, China', '10.1016/j.catena.2008.06.005', (282,)), ('npj Urban Sustainability', 'Urbanization: an increasing source of multiple pollutants to rivers in the 21st century', '10.1038/s42949-021-00026-w', (213,)), ('Nature Communications', 'A triple increase in global river basins with water scarcity due to future pollution', '10.1038/s41467-024-44947-3', (203,)), ('Science Advances', 'China's improving inland surface water quality since 2003', '10.1126/sciadv.aau3798', (191,)), ('Water Science and Technology', 'Urban drainage system planning and design - Challenges with climate change and urbanization: A review', '10.2166/wst.2015.207', (146,)), ('Environmental Modelling and Software', 'Integrating simulation models with a view to optimal control of urban wastewater systems', '10.1016/j.envsoft.2004.02.003', (142,)), ('Control Engineering Practice', 'Hierarchical predictive control of integrated wastewater treatment systems', '10.1016/j.conengprac.2007.01.008', (137,)), ('Science of the Total Environment, The', 'Water quality variation in the highly disturbed Huai River Basin, China from 1994 to 2005 by multi-statistical analyses', '10.1016/j.scitotenv.2014.06.101', (123,)), ('Environmental and Sustainability Indicators', 'Assessment of urban river water quality using modified NSF water quality index model at Siliguri city, West Bengal, India', '10.1016/j.indic.2022.100202', (100,)), ('Urban Water Journal', 'Potential and limitations of modern equipment for real time control of urban wastewater systems', '10.1080/1573062X.2013.763996', (97,)), ('Environmental Science and Technology Letters', 'Harmful Algal Blooms in Chinese Coastal Waters Will Persist Due to Perturbed Nutrient Ratios', '10.1021/acs.estlett.1c00012', (94,)), ('Hydrological Processes', 'The relative impacts of climate change and urbanization on the hydrological response of a Korean urban watershed', '10.1002/hyp.7781', (93,)), ('Journal of Hydrology', 'Urban flood prediction under heavy precipitation', '10.1016/j.jhydrol.2019.123984', (89,)), ('Environmental Science: Water Research and Technology', 'Open storm: A complete framework for sensing and control of urban watersheds', '10.1039/c7ew00374a', (87,)), ('Sustainability', 'Water quality changes during rapid urbanization in the Shenzhen river catchment: An integrated view of socio-economic and infrastructure development', '10.3390/su6107433', (84,)), ('Computers, Environment and Urban Systems', 'Optimised spatial planning to meet long term urban sustainability objectives', '10.1016/j.compenvurbsys.2015.08.003', (67,)), ('Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences', 'Re-engineering cities: A framework for adaptation to global change', '10.1098/rsta.2007.0008', (65,)), ('Journal of Cleaner Production', 'Isotopic compositions reveal the driving forces of high nitrate level in an urban river: Implications for pollution control', '10.1016/j.jclepro.2021.126693', (62,))]

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3-8	Water	389	2017.78	sanitation toilets sludge toilet water hygiene excreta fs faecal wash	[('Science', 'Emerging solutions to the water challenges of an urbanizing world', '10.1126/science.aad8641', (640,)), ('Faecal Sludge Management: Systems Approach for Implementation and Operation', 'Faecal sludge management: Systems approach for implementation and operation', '10.2166/9781780404738', (316,)), ('Global and Planetary Change', 'Impacts of the dam-orientated water-sediment regulation scheme on the lower reaches and delta of the Yellow River (Huanghe): A review', '10.1016/j.gloplacha.2017.08.005', (288,)), ('Environment International', 'Ecological Sanitation - A way to solve global sanitation problems?', '10.1016/j.envint.2004.08.006', (285,)), ('International Journal of Environmental Research and Public Health', 'Indirect potable reuse: A sustainable water supply alternative', '10.3390/ijerph6031174', (175,)), ('Biotechnology Advances', 'Sustainable sanitation technology options for urban slums', '10.1016/j.biotechadv.2012.02.007', (172,)), ('World Development', 'Paradoxes of Decentralization: Water Reform and Social Implications in Mexico', '10.1016/j.worlddev.2005.11.026', (164,)), ('Nature Sustainability', 'Environmental and health co-benefits for advanced phosphorus recovery', '10.1038/s41893-019-0416-x', (143,)), ('Nature Sustainability', 'Recirculation of human-derived nutrients from cities to agriculture across six continents', '10.1038/s41893-018-0118-9', (120,)), ('Science, Technology, & Human Values', 'Drinking Wastewater: Public Trust in Potable Reuse', '10.1177/0162243912444736', (118,)), ('Technology in Society', 'Appropriate technology - A comprehensive approach for water and sanitation in the developing world', '10.1016/j.techsoc.2009.03.010', (118,)), ('Journal of Applied Microbiology', 'Quantification of microbial risks to human health caused by waterborne viruses and bacteria in an urban slum', '10.1111/jam.12368', (116,)), ('Urban Water Journal', 'A review of frontier approaches to efficiency and productivity measurement in urban water utilities', '10.1080/1573062X.2013.765488', (109,)), ('WASTES MANAGE.', 'Composting toilets as a sustainable alternative to urban sanitation - A review', '10.1016/j.wasman.2013.10.006', (106,)), ('Sustainability', 'Towards "sustainable" sanitation: Challenges and opportunities in urban areas', '10.3390/su8121289', (106,)), ('Science of the Total Environment, The', 'Selection of sustainable sanitation technologies for urban slums - A case of Bwaise III in Kampala, Uganda', '10.1016/j.scitotenv.2010.09.032', (105,)), ('Global Environmental Change', 'Drought and water policy in Australia: Challenges for the future illustrated by the issues associated with water trading and climate change adaptation in the Murray-Darling Basin', '10.1016/j.gloenvcha.2013.09.006', (102,)), ('Water Science and Technology', 'Impact of separate urine collection on wastewater treatment systems', '10.2166/wst.2003.0027', (102,)), ('BMC Public Health', 'Are pit latrines in urban areas of Sub-Saharan Africa performing? A review of usage, filling, insects and odour nuisances', '10.1186/s12889-016-2772-z', (99,)), ('Journal of Water Sanitation and Hygiene for Development', 'Fecal sludge management (FSM): Analytical tools for assessing FSM in cities', '10.2166/washdev.2014.139', (92,))]
3-16	Water	112	2017.46	flood waterlogging runoff disaster streamflow water watershed risk hydrological river	[('Journal of Hydrology', 'Assessing the effects of urbanization on annual runoff and flood events using an integrated hydrological modeling system for Qinhuai River basin, China', '10.1016/j.jhydrol.2012.06.057', (347,)), ('Journal of Hydrology', 'Assessing impacts of Landuse and Landcover changes on hydrology for the upper San Pedro watershed', '10.1016/j.jhydrol.2011.07.012', (298,)), ('Hydrological Processes', 'SWAT-simulated hydrological impact of land-use change in the Zanjanrood Basin, Northwest Iran', '10.1002/hyp.7530', (215,)), ('Shuikexue Jinzhan/Advances in Water Science', 'Development and challenges of urban hydrology in a changing environment: I: Hydrological response to urbanization', 'NO DOI', (156,)), ('Shuikexue Jinzhan/Advances in Water Science', 'Progress on disaster mechanism and risk assessment of urban flood/waterlogging disasters in China', '10.14042/j.cnki.32.1309.2020.05.008', (117,)), ('Environmental Hazards', 'Reducing the complexity of the flood vulnerability index', '10.3763/ehaz.2010.0043', (115,)), ('Water Resources Research', 'Effects of watershed land use and geomorphology on stream low flows during severe drought conditions in the southern Blue Ridge Mountains, Georgia and North Carolina, United States', '10.1029/2010WR009340', (108,)), ('Catena', 'Analysis of streamflow responses to climate variability and land use change in the Loess Plateau region of China', '10.1016/j.catena.2017.02.012', (104,)), ('Ecological Indicators', 'Time series analysis of climate variability and trends in Kashmir Himalaya', '10.1016/j.ecolind.2021.107690', (93,)), ('Estudos Avancados', 'Águas urbanas', '10.1590/s0103-40142008000200007', (90,)), ('Natural Hazards and Earth System Sciences', 'Flood risks in urbanized areas - Multi-sensoral approaches using remotely sensed data for risk assessment', '10.5194/nhess-11-431-2011', (76,)), ('Sustainability', 'Spatial assessment of urban flood susceptibility using data mining and geographic information system (GIS) tools', '10.3390/su10030648', (67,)), ('Water (Switzerland)', 'Effects of land cover change on urban floods and rainwater harvesting: A case study in Sharjah, UAE', '10.3390/w10050631', (67,)), ('Ecohydrology and Hydrobiology', 'Ecohydrology and good urban design for urban storm water-logging in Beijing, China', '10.2478/v10104-012-0029-8', (58,)), ('Modeling Earth Systems and Environment', 'State-of-the-art hydrological models and application of the HEC-HMS model: a review', '10.1007/s40808-023-01704-7', (56,)), ('Clean - Soil, Air, Water', 'Impacts of Anthropogenic Land Use Changes on Nutrient Concentrations in Surface Waterbodies: A Review', '10.1002/clen.201800051', (48,)), ('Journal of Cleaner Production', 'The response of river network structure to urbanization: A multifractal perspective', '10.1016/j.jclepro.2019.02.238', (41,)), ('Acta Ecologica Sinica', 'Storm flood disaster risk assessment in urban area based on the simulation of land use scenarios: A case of Maozhou Watershed in Shenzhen City', '10.5846/stxb201708271546', (38,)), ('Environmental Earth Sciences', 'Integrating hydrologic modeling and land use projections for evaluation of hydrologic response and regional water supply impacts in semi-arid environments', '10.1007/s12665-011-1144-3', (38,)), ('Water Resources Research', 'A stochastic model of streamflow for urbanized basins', '10.1002/2013WR014834', (38,))]
3-3	Water	537	2017.32	suds drainage permeable pervious stormwater pavement concrete runoff infiltration pavements	[('Building and Environment', 'Review of permeable pavement systems', '10.1016/j.buildenv.2006.11.016', (477,)), ('Water (Switzerland)', 'A review of sustainable urban drainage systems considering the climate change and urbanization impacts', '10.3390/w6040976', (361,)), ('Wiley Interdisciplinary Reviews: Water', 'The ecology and biodiversity of urban ponds', '10.1002/wat2.1014', (248,)), ('Water and Environment Journal', 'The potential of green roofs to manage urban stormwater', '10.1111/j.1747-6593.2009.00174.x', (227,)), ('Wetland Systems to Control Urban Runoff', 'Wetland Systems to Control Urban Runoff', '10.1016/B978-0-444-52734-9.X5000-2', (219,)), ('Cement and Concrete Research', 'Incorporation of titanium dioxide nanoparticles in mortars - Influence of microstructure in the hardened state properties and photocatalytic activity', '10.1016/j.cemconres.2012.09.007', (208,)), ('Journal of Environmental Management', 'Clogging in permeable concrete: A review', '10.1016/j.jenvman.2017.02.018', (207,)), ('Progress in Physical Geography', 'Integrating sciences to sustain urban ecosystem services', '10.1177/0309133311422464', (158,)), ('Conservation Letters', 'New policy directions for global pond conservation', '10.1111/conl.12447', (143,)), ('Science of the Total Environment, The', 'Impact of runoff infiltration on contaminant accumulation and transport in the soil/filter media of Sustainable Urban Drainage Systems: A literature review', '10.1016/j.scitotenv.2016.04.215', (141,)), ('European Journal of Operational Research', 'Urban stormwater drainage management: The development of a multicriteria decision aid approach for best management practices', '10.1016/j.ejor.2006.06.019', (133,)), ('Construction and Building Materials', 'A review of sustainable pervious concrete systems: Emphasis on clogging, material characterization, and environmental aspects', '10.1016/j.conbuildmat.2020.120491', (133,)), ('Wetlands', 'The integrated constructed wetlands (ICW) concept', '10.1672/0277-5212(2007)27[337:TICWIC]2.0.CO;2', (130,)), ('Environmental Technology (United Kingdom)', 'Permeable pavement and stormwater management systems: A review', '10.1080/09593330.2013.782573', (129,)), ('Journal of Cleaner Production', 'Development of a sustainable pervious pavement material using recycled ceramic aggregate and bio-based polyurethane binder', '10.1016/j.jclepro.2019.02.184', (129,)), ('Journal of Water and Climate Change', 'A review of the adaptation and mitigation of global climate change using sustainable drainage in cities', '10.2166/wcc.2010.035', (126,)), ('Construction and Building Materials', 'Pervious concrete with titanium dioxide as a photocatalyst compound for a greener urban road environment', '10.1016/j.conbuildmat.2012.04.097', (125,)), ('Landscape and Urban Planning', 'Streetscape biodiversity and the role of bioretention swales in an Australian urban environment', '10.1016/j.landurbplan.2011.02.006', (122,)), ('Journal of Environmental Management', 'Mapping hazard from urban non-point pollution: A screening model to support sustainable urban drainage planning', '10.1016/j.jenvman.2004.08.002', (121,)), ('Water Research', 'Filtration and clogging of permeable pavement loaded by urban drainage', '10.1016/j.watres.2011.10.018', (101,))]

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3-10	Water	316	2016.85	rainwater rwh harvesting water stormwater tank greywater runoff potable supply	[('Water Science and Technology', 'Hydraulics efficiency of constructed wetlands and ponds', '10.1016/S0273-1223(99)00448-5', (387,)), ('Water Research', 'Roof selection for rainwater harvesting: Quantity and quality assessments in Spain', '10.1016/j.watres.2011.03.036', (272,)), ('Agriculture, Ecosystems and Environment', 'Managing riparian buffer strips to optimise ecosystem services: A review', '10.1016/j.agee.2020.106891', (259,)), ('Environmental Modelling and Software', 'Decision support for sustainable option selection in integrated urban water management', '10.1016/j.envsoft.2008.04.010', (258,)), ('Physics & Chemistry of the Earth', 'Domestic rainwater harvesting to improve water supply in rural South Africa', '10.1016/j.pce.2007.07.007', (190,)), ('Water Science and Technology', 'Water saving potential of domestic water reuse systems using greywater and rainwater in combination', '10.1016/S0273-1223(99)00083-9', (168,)), ('Desalination', 'Rainwater harvesting and greywater treatment systems for domestic application in Ireland', '10.1016/j.desal.2010.05.035', (160,)), ('Science of the Total Environment, The', 'Understanding the physical processes of pollutant build-up and wash-off on roof surfaces', '10.1016/j.scitotenv.2008.12.027', (141,)), ('Resources, Conservation and Recycling', 'Cost-efficiency of rainwater harvesting strategies in dense Mediterranean neighbourhoods', '10.1016/j.resconrec.2011.01.008', (139,)), ('Journal of Environmental Management', 'Integrated treatment and recycling of stormwater: A review of Australian practice', '10.1016/j.jenvman.2005.06.003', (134,)), ('Resources, Conservation and Recycling', 'Rainwater tanks in multi-unit buildings: A case study for three Australian cities', '10.1016/j.resconrec.2010.06.010', (134,)), ('International Journal of Life Cycle Assessment', 'Environmental analysis of rainwater harvesting infrastructures in diffuse and compact urban models of Mediterranean climate', '10.1007/s11367-011-0330-6', (119,)), ('Science of the Total Environment, The', 'Assessment of public health risk associated with viral contamination in harvested urban stormwater for domestic applications', '10.1016/j.scitotenv.2015.03.077', (114,)), ('Journal of Environmental Management', 'Water localisation and reclamation: Steps towards low impact urban design and development', '10.1016/j.jenvman.2006.04.008', (113,)), ('Journal of Industrial Ecology', 'Using Life Cycle Assessment to Evaluate Green and Grey Combined Sewer Overflow Control Strategies', '10.1111/j.1530-9290.2012.00534.x', (112,)), ('Journal of Cleaner Production', 'Modelling for economic cost and environmental analysis of rainwater harvesting systems', '10.1016/j.jclepro.2014.10.021', (111,)), ('Hydrological Processes', 'How important is the selection of computational analysis method to the accuracy of rainwater tank behaviour modelling?', '10.1002/hyp.6499', (105,)), ('Water Research', 'A decision support tool for sustainable planning of urban water systems: Presenting the dynamic urban water simulation model', '10.1016/j.watres.2013.09.060', (100,)), ('Journal of Cleaner Production', 'Assessment of stormwater management options in urban contexts using Multiple Attribute Decision-Making', '10.1016/j.jclepro.2016.11.079', (99,)), ('Physics & Chemistry of the Earth', 'Rainwater and reclaimed wastewater for sustainable urban water use', '10.1016/j.pce.2008.02.029', (96,))]
3-19	Water	68	2016.46	water river hsas flow freshwater damodar aquatic agriculture rivers effluent	[('Freshwater Biology', 'Preserving the biodiversity and ecological services of rivers: New challenges and research opportunities', '10.1111/j.1365-2427.2009.02340.x', (509,)), ('Ecological Applications', 'Meeting ecological and societal needs for freshwater', '10.1890/1051-0761(2002)012[1247:MEASNF]2.0.CO;2', (488,)), ('Hydrobiologia', 'Water quality of effluent-dominated ecosystems: Ecotoxicological, hydrological, and management considerations', '10.1007/s10750-004-0189-7', (284,)), ('Water Science and Technology', 'Diffuse pollution from agriculture - A worldwide outlook', '10.1016/S0273-1223(99)00027-X', (192,)), ('Annals of Applied Biology', 'The problems of sustainable water use in the Mediterranean and research requirements for agriculture', '10.1111/j.1744-7348.2004.tb00342.x', (140,)), ('Aquatic Toxicology', 'Fish on Prozac (and Zoloft): Ten years later', '10.1016/j.aquatox.2014.01.007', (137,)), ('Water International', 'Flood defense in the netherlands: A new era, a new approach', '10.1080/02508060508691839', (124,)), ('Energy, Environment, and Sustainability', 'Water Pollution, Human Health and Remediation', '10.1007/978-981-10-7551-3_2', (118,)), ('Aquatic Sciences', 'Hydropeaking indicators for characterization of the Upper-Rhone River in Switzerland', '10.1007/s00027-010-0154-7', (112,)), ('Environment, Development and Sustainability', 'A historical investigation on water resources management in Iran', '10.1007/s10668-018-00307-y', (89,)), ('Integrated environmental assessment and management', 'Toward sustainable environmental quality: Identifying priority research questions for Latin America', '10.1002/ieam.2023', (89,)), ('Environmental Management', 'Fish assemblage responses to water withdrawals and water supply reservoirs in piedmont streams', '10.1007/s00267-005-0169-3', (84,)), ('Ecohydrology', 'Determining hydrologic factors that influence stream macroinvertebrate assemblages in the northeastern US', '10.1002/eco.99', (77,)), ('Journal of Environmental Engineering', "Development of water quality indexes to identify pollutants in vietnam's surface water", '10.1061/(ASCE)EE.1943-7870.0000314', (68,)), ('Water Science and Technology', 'Diffuse agricultural water pollution in India', '10.1016/S0273-1223(99)00030-X', (63,)), ('Sustainable Water Resources Management', 'Environmental flow in the context of dams and development with special reference to the Damodar Valley Project, India: a review', '10.1007/s40899-022-00646-9', (50,)), ('Renewable and Sustainable Energy Reviews', 'Using empirical science education in schools to improve climate change literacy', '10.1016/j.rser.2023.113232', (49,)), ('Environmental Science and Pollution Research', 'Revisiting inland hypoxia: diverse exceedances of dissolved oxygen thresholds for freshwater aquatic life', '10.1007/s11356-017-8908-6', (48,)), ('Journal of Water Resources Planning and Management', 'Simulation-optimization framework to support sustainable watershed development by mimicking the predevelopment flow regime', '10.1061/(ASCE)WR.1943-5452.0000040', (44,)), ('Comparative Biochemistry and Physiology - C Toxicology and Pharmacology', 'Commentary: Perspectives on aquaculture, urbanization and water quality', '10.1016/j.cbpc.2018.11.014', (43,))]
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4-13	Smart City	118	2019.72	sharing heritage smart city coworking cities energy cultural ict creative	[('Smart Cities', 'Redefining the smart city: Culture, metabolism and governance', '10.3390/smartcities1010002', (351,)), ('Public Administration Review', 'Public-private partnerships in urban infrastructures: Reconciling private sector participation and sustainability', '10.1111/j.1540-6210.2008.01974.x', (323,)), ('Big Data Mining and Analytics', 'A survey on algorithms for intelligent computing and smart city applications', '10.26599/BDMA.2020.9020029', (103,)), ('Energy', 'Identification of optimal wind, solar and hybrid wind-solar farming sites using fuzzy logic modelling', '10.1016/j.energy.2019.116056', (79,)), ('Local Environment', 'Urban sharing in smart cities: the cases of Berlin and London', '10.1080/13549839.2018.1463978', (78,)), ('City, Culture and Society', 'Creatives in the city: Urban contradictions of the creative city', '10.1016/j.ccs.2013.02.003', (74,)), ('Urban Science', 'COVID, CITIES and CLIMATE: Historical Precedents and Potential Transitions for the New Economy', '10.3390/urbansci4030032', (66,)), ('Energy Policy', 'What is needed for citizen-centered urban energy transitions: Insights on attitudes towards decentralized energy storage', '10.1016/j.enpol.2020.112032', (60,)), ('International Journal of Life Cycle Assessment', 'Environmental assessment of Smart City Solutions using a coupled urban metabolism—life cycle impact assessment approach', '10.1007/s11367-018-1453-9', (46,)), ('Raumforschung und Raumordnung', 'Suburbanisation and Suburbanisms – Making Sense of Continental European Developments', '10.1007/s13147-018-0526-3', (45,)), ('Smart Cities', 'Smart tourism as a pillar for sustainable urban development: An alternate smart city strategy from mauritius', '10.3390/smartcities2020011', (44,)), ('Energy', 'Sustainable renewable energy planning and wind farming optimization from a biodiversity perspective', '10.1016/j.energy.2019.07.147', (43,)), ('Latin American Perspectives', 'Urban Governance and Economic Development in Medellín', '10.1177/0094582X16668313', (39,)), ('New Design Ideas', 'Contextualising the smart city for sustainability and inclusivity', 'NO DOI', (37,)), ('2012 11th International Conference on Environment and Electrical Engineering, EEEIC 2012 - Conference Proceedings', 'Power consumption scheduling for residential buildings', '10.1109/EEEIC.2012.6221508', (36,)), ('IET Seminar Digest', 'SMART CITIES CHARACTERISTICS: Importance of built environment components', '10.1049/ic.2014.0045', (35,)), ('Urban Science', 'Smart City Thailand: Visioning and Design to Enhance Sustainability, Resiliency, and Community Wellbeing', '10.3390/urbansci6010007', (32,)), ('Smart Cities', 'Redefining the use of big data in urban health for increased liveability in smart cities', '10.3390/smartcities2020017', (30,)), ('Urban Policy and Research', 'Sharing Cities for Urban Transformation: Narrative, Policy and Practice', '10.1080/08111146.2017.1421533', (30,)), ('Sustainability', 'Toward sustainable development? A bibliometric analysis of PPP-related policies in China between 1980 and 2017', '10.3390/su11010142', (29,))]
4-12	Smart City	137	2019.31	entrepreneurship competitiveness smart data creative cities city healthcare sociocultural digital	[('Sustainable Technology and Entrepreneurship', 'Urban entrepreneurship and sustainable businesses in smart cities: Exploring the role of digital technologies', '10.1016/j.stae.2022.100016', (105,)), ('Sustainable Cities and Society', 'Effective task scheduling algorithm with deep learning for Internet of Health Things (IoHT) in sustainable smart cities', '10.1016/j.scs.2021.102945', (98,)), ('Journal of Computing in Civil Engineering', 'Need for Interoperability to Enable Seamless Information Exchanges in Smart and Sustainable Urban Systems', '10.1061/(ASCE)CP.1943-5487.0000824', (95,)), ('Cities', 'Measuring the urban competitiveness of Chinese cities in 2000', '10.1016/j.cities.2010.02.004', (91,)), ('Economic Development Quarterly', 'Inequality in the creative City: Is there still a place for "Old-fashioned" institutions?', '10.1177/0891242407310722', (88,)), ('Economic Geography', 'On the Relationship between Innovation and Wage Inequality: New Evidence from Canadian Cities', '10.1111/ecge.12056', (84,)), ('Energies', 'The state of smart cities in China: The case of Shenzhen', '10.3390/en12224375', (69,)), ('Sustainable Development', 'Measuring the urban sustainable development in cities through a Composite Index: The case of Portugal', '10.1002/sd.2005', (62,)), ('Procedia Engineering', 'A Master Data Management Solution to Unlock the Value of Big Infrastructure Data for Smart, Sustainable and Resilient City Planning', '10.1016/j.proeng.2017.08.034', (59,)), ('Organization and Environment', 'Toward a Theory of Purpose-Driven Urban Entrepreneurship', '10.1177/1086026615600883', (57,)), ('European Urban and Regional Studies', 'How can ‘smart’ also be socially sustainable? Insights from the case of Milan', '10.1177/0969776416661016', (54,)), ('Jisuanji Yanjiu yu Fazhan/Computer Research and Development', 'Survey of data-centric Smart City', '10.7544/issn1000-1239.2014.20131586', (52,)), ('Information Technology & People', 'Modeling pervasive platforms and digital services for smart urban transformation using an enterprise architecture framework', '10.1108/ITP-07-2020-0511', (43,)), ('City, Culture and Society', 'Culturally creative cities in Japan: Reality and prospects', '10.1016/j.ccs.2015.11.003', (40,)), ('Urban Policy and Research', 'Benchmarking the Competitiveness of Australian Global Cities: Sydney and Melbourne in the Global Context', '10.1080/08111146.2013.832667', (38,)), ('IOP Conference Series: Earth and Environmental Science', 'Co-Creation of Positive Energy Blocks', '10.1088/1755-1315/352/1/012060', (37,)), ('Digital Policy, Regulation and Governance', 'Digital transformation with enterprise architecture for smarter cities: a qualitative research approach', '10.1108/DPRG-04-2020-0044', (37,)), ('Asia Pacific Viewpoint', 'Assessing the incentives in regional city-to-city cooperation: A case study of Jiangyin-Jingjiang Industrial Park of Jiangsu Province in the Yangtze River Delta region', '10.1111/j.1467-8373.2012.01475.x', (35,)), ('Digital Policy, Regulation and Governance', 'Data driven approaches for smart city planning and design: a case scenario on urban data management', '10.1108/DPRG-03-2022-0023', (34,)), ('Entrepreneurship, Innovation and Smart Cities', 'Entrepreneurship, innovation and smart cities', '10.4324/9781315407463', (34,))]

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4-14	Smart City	92	2018.84	modular shrinkage detroit book smart bay hangzhou city brain planning	[('Infectious Diseases of Poverty', 'The cross-cutting contribution of the end of neglected tropical diseases to the sustainable development goals', '10.1186/s40249-017-0288-0', (155,)), ('Smart Cities: A Spatialised Intelligence', 'Smart cities: A spatialised intelligence', '10.1002/9781119075615', (149,)), ('Driving Detroit: The Quest for Respect in the Motor City', 'Driving detroit: The quest for respect in the motor city', 'NO DOI', (148,)), ('The City After Abandonment', 'The city after abandonment', 'NO DOI', (108,)), ('Environment and Planning D: Society and Space', 'Smart city as anti-planning in the UK', '10.1177/0263775818787506', (107,)), ('Planning Theory', 'Theorizing practice and practising theory: Outlines for an actor-relational-approach in planning', '10.1177/1473095209346499', (96,)), ('Environment & Planning C: Government & Policy', '"Wicked', 'messy', and 'clumsy': Long-term frameworks for sustainability", '10.1068/c0790s', (78,)), ('Habitat International', 'Low carbon urban development strategy in Malaysia - The case of Iskandar Malaysia development corridor', '10.1016/j.habitatint.2011.12.018', (74,)), ('Cities', 'Green building, pro-environmental behavior and well-being: Evidence from Singapore', '10.1016/j.cities.2020.102980', (60,)), ('Landscape and Urban Planning', 'Translating a wicked problem: A strategic planning approach to rural shrinkage in Denmark', '10.1016/j.landurbplan.2016.01.009', (51,)), ('Shrinking Cities: Understanding Urban Decline in the United States', 'Shrinking cities: Understanding urban decline in the United States', '10.4324/9781315757582', (49,)), ('Habitat International', 'Urban planning schemes for developing low-carbon cities in the Gulf Cooperation Council region', '10.1016/j.habitatint.2023.102881', (45,)), ('Sustainable Cities and Society', 'Benchmarking the sustainability of concrete and steel modular construction for buildings in urban development', '10.1016/j.scs.2023.104400', (44,)), ("Citizen's Right to the Digital City: Urban Interfaces, Activism, and Placemaking", 'Citizen’s right to the digital city urban interfaces, activism, and placemaking', '10.1007/978-981-287-919-6', (40,)), ('Environment and Planning A', 'Does planning make a difference to urban form? Recent evidence from Central Scotland', '10.1068/a3619', (38,)), ('International Journal of Environmental Research and Public Health', 'Developing A Sustainable Urban-Environmental Quality Evaluation System in China Based on A Hybrid Model', '10.3390/ijerph16081434', (28,)), ('Urban Design International', 'Paradigm lost: Industrial and Post-Industrial Detroit-An analysis of the street network and its social and economic dimensions from 1796 to the present', '10.1057/udi.2013.4', (26,)), ('Urban Policy and Research', "Urban Sustainability and the Urban Forms of China's Leading Mega Cities: Beijing, Shanghai and Guangzhou", '10.1080/08111146.2012.737578', (24,)), ('Sustainability', 'Assessing Public Acceptance of Autonomous Vehicles for Smart and Sustainable Public Transportation in Urban Areas: A Case Study of Jakarta, Indonesia', '10.3390/su15097445', (20,)), ('Environment and Planning B: Planning and Design', ''measure twice, Cut once'—revisiting the strength and impact of local planning regulation of housing development in england', '10.1068/b39131', (20,))]
4-7	Smart City	217	2017.63	degrowth densification housing oslo compact planning energy crowdsourcing consumption urban	[('Urban Studies', 'Three challenges for the compact city as a sustainable urban form: Household consumption of energy and transport in eight residential areas in the Greater Oslo Region', '10.1080/00420980500332064', (423,)), ('Ecological Economics', 'Willing consumers - Or locked-in? Policies for a sustainable consumption', '10.1016/S0921-8009(02)00086-1', (378,)), ('European Planning Studies', 'Urban planning and sustainable development', '10.1080/713666490', (253,)), ('Journal of Cleaner Production', 'Millennial generation attitudes to sustainable wine: An exploratory study on Italian consumers', '10.1016/j.jclepro.2013.10.058', (240,)), ('Renewable and Sustainable Energy Reviews', 'A review of sustainable cooling technologies in buildings', '10.1016/j.rser.2011.03.032', (146,)), ('Journal of Housing and the Built Environment', 'Ecological footprints and sustainable urban form', '10.1023/B:JOHO.0000017708.98013.cb', (140,)), ('Buildings', 'Rethinking design and urban planning for the cities of the future', '10.3390/buildings7030076', (115,)), ('The Future of Planning: Beyond Growth Dependence', 'The future of planning: Beyond growth dependence', 'NO DOI', (107,)), ('Renewable and Sustainable Energy Reviews', 'A review on energy conscious designs of building façades in hot and humid climates: Lessons for (and from) Kuala Lumpur and Darwin', '10.1016/j.rser.2017.08.061', (98,)), ('Futures', 'Crowdsourcing urban sustainability. Data, people and technologies in participatory governance', '10.1016/j.futures.2014.11.006', (84,)), ('Applied Energy', 'Passive energy recovery from natural ventilation air streams', '10.1016/j.apenergy.2013.07.019', (83,)), ('European Planning Studies', 'Urban sustainability: is densification sufficient?', '10.1080/09654313.2019.1604633', (81,)), ('Ecological Economics', "Is eco-village/urban village the future of a degrowth society? An urban planner's perspective", '10.1016/j.ecolecon.2014.06.003', (77,)), ('Local Environment', 'Urban planning and degrowth: a missing dialogue', '10.1080/13549839.2020.1867840', (73,)), ('Sustainability', 'The advent of practice theories in research on sustainable consumption: Past, current and future directions of the field', '10.3390/su11020341', (69,)), ('Cities', 'Amsterdam in the 21st century: Geography, housing, spatial development and politics', '10.1016/j.cities.2015.11.017', (67,)), ('European Planning Studies', "Oslo's farewell to urban sprawl", '10.1080/09654313.2011.530395', (67,)), ('Environmental Policy and Governance', '"Going Green'?: The Limitations of Behaviour Change Programmes as a Policy Response to Escalating Resource Consumption", '10.1002/eet.1642', (66,)), ('Housing Studies', 'Sizing Home, Doing Family in Sydney, Australia', '10.1080/02673037.2012.697552', (63,)), ('European Urban and Regional Studies', 'The social context and politics of large scale urban architecture: Investigating the design of Barcode, Oslo', '10.1177/0969776416643751', (59,))]
4-2	Smart City	953	2016.97	eco city green sustainability political branding carbon cities policy urban	[('Environmental Politics', "Rethinking sustainable cities: Multilevel governance and the 'urban' politics of climate change", '10.1080/0964401042000310178', (931,)), ('Journal of Cleaner Production', 'Sustainable-smart-resilient-low carbon-eco-knowledge cities; Making sense of a multitude of concepts promoting sustainable urbanization', '10.1016/j.jclepro.2015.02.004', (867,)), ('International Journal of Urban and Regional Research', 'The antinomies of the postpolitical city: In search of a democratic politics of environmental production', '10.1111/j.1468-2427.2009.00859.x', (799,)), ('Cities and Climate Change: Urban Sustainability And Global Environmental Governance', 'Cities and climate change: Urban sustainability and global environmental governance', '10.4324/9780203219256', (682,)), ('International Journal of Urban and Regional Research', "The environment and the enterpreneurial city: Searching for the urban 'sustainability fix' in Manchester and Leeds", '10.1111/j.0309-1317.2004.00535.x', (491,)), ('Dialogues in Human Geography', 'New urban utopias of postcolonial India: ‘Entrepreneurial urbanization’ in Dholera smart city, Gujarat', '10.1177/2043820614565748', (487,)), ('Journal of Place Management and Development', 'My city - my brand: The different roles of residents in place branding', '10.1108/17538331311306087', (451,)), ('Environment and Urbanization', ''Don’t call me resilient again!': the New Urban Agenda as immunology … or … what happens when communities refuse to be vaccinated with ‘smart cities’ and indicators', '10.1177/0956247816684763', (408,)), ('Environment and Urbanization', 'The eco-city: Ten key transport and planning dimensions for sustainable city development', '10.1177/0956247806063947', (393,)), ('Planning for Growth Urban and Regional Planning in China', 'Planning for growth urban and regional planning in China', '10.4324/9780203067345', (362,)), ('Transactions - Institute of British Geographers', 'From sustainable development to carbon control: Eco-state restructuring and the politics of urban and regional development', '10.1111/j.1475-5661.2009.00362.x', (356,)), ('Cities', 'Dimensions of the eco-city', '10.1016/s0264-2751(97)00003-6', (280,)), ('Journal of Planning Education and Research', 'Environmental justice and the sustainable city', '10.1177/0739456X9901800305', (251,)), ('Environment and Planning A', 'Exposing smart cities and eco-cities: Frankenstein urbanism and the sustainability challenges of the experimental city', '10.1177/0308518X17738535', (247,)), ('Sustainable Cities and Society', 'From Garden City to Eco-urbanism: The quest for sustainable neighborhood development', '10.1016/j.scs.2015.09.002', (244,)), ('Environment and Planning A', 'Urban sustainability: Learning from best practice?', '10.1068/a37300', (232,)), ('The University and the City', 'The university and the city', '10.4324/9780203068366', (221,)), ('Cities', 'Critical research on eco-cities? A walk through the Sino-Singapore Tianjin Eco-City, China', '10.1016/j.cities.2013.08.005', (213,)), ('Journal of Urban Technology', 'How to Build a Sandcastle: An Analysis of the Genesis and Development of Masdar City', '10.1080/10630732.2012.735105', (200,)), ('Urban Studies', 'Why does everyone think cities can save the planet?', '10.1177/0042098020919081', (198,))]

4-17	Smart City	55	2015.58	cittaslow slow towns movement manila zealand rma tourism act local	[('Journal of Urban Affairs', 'Slow Cities: Sustainable places in a fast world', '10.1111/j.1467-9906.2006.00298.x', (207,)), ('City', 'The urban politics of rollwith-it neoliberalization', '10.1080/13604810902986848', (170,)), ('Urban Sustainability in Theory and Practice: Circles of sustainability', 'Urban sustainability in theory and practice: Circles of sustainability', '10.4324/9781315765747', (105,)), ('Local Environment', 'Sense and sustainability: The case of the Slow City movement', '10.1080/13549830701581895', (103,)), ('Public Administration Review', 'E-Participation and Environmental Protection: Are Local Governments Really Committed?', '10.1111/puar.12156', (81,)), ('Current Issues in Tourism', "'Cittáslow' eco-gastronomic heritage as a tool for destination development", '10.1080/13683500.2010.511709', (69,)), ('Environment and Planning B: Planning and Design', "Towards a new planning paradigm? Reflections on New Zealand's Resource Management Act", '10.1068/b220109', (61,)), ('Urban Studies', 'Expertise, representation and the common good: Grounds for legitimacy in the urban governance network', '10.1080/00420980701518982', (45,)), ('International Planning Studies', 'The Value of Cittaslow as an Approach to Local Sustainable Development: A New Zealand Perspective', '10.1080/13563475.2012.726851', (41,)), ('Sustainability', 'The Impact of the Digital Economy on Enterprise Sustainable Development and Its Spatial-Temporal Evolution: An Empirical Analysis Based on Urban Panel Data in China', '10.3390/su141911948', (41,)), ('Regional Research of Russia', 'Green and Digital Economy for Sustainable Development of Urban Areas', '10.1134/S2079970520040097', (40,)), ('Environment and Planning B: Planning and Design', 'A decade on: Reflections on the Resources Management Act 1991 and the pratice of urban planning in New Zealand', '10.1068/b2744', (40,)), ('Sustainability', 'The New Digital Economy and Sustainability: Challenges and Opportunities', '10.3390/su151410902', (34,)), ('Innovation: The European Journal of Social Science Research', 'Urban sustainability as a new form of governance: Obstacles and potentials in the case of Vienna', '10.1080/13511610304510', (33,)), ('International Journal of Environmental Research and Public Health', 'Neighborhood variation of sustainable urban morphological characteristics', '10.3390/ijerph15030465', (31,)), ('Urban Studies', 'Experimental discursive spaces: Policy processes, public participation and the Greater London Authority', '10.1080/004209804200019417 9', (28,)), ('Environment and Planning A', 'Sensory global towns: An experiential approach to the growth of the Slow City movement', '10.1068/a45133', (28,)), ('Environment and Planning C: Politics and Space', 'Governance for green urbanisation: Lessons from Singapore's green building certification scheme', '10.1177/2399654418778596', (24,)), ('International Encyclopedia of the Social & Behavioral Sciences: Second Edition', 'Time Use and Resource Consumption', '10.1016/B978-0-08-097086-8.91090-0', (20,)), ('Land', 'Analysis and evaluation of the spatial structure of cittaslow towns on the example of selected regions in central Italy and north-eastern Poland', '10.3390/land10080780', (18,))]
4-4	Smart City	620	2014.99	planning sustainability policy urbanism local development design housing land new	[('Journal of the American Planning Association', 'Green Cities, Growing Cities, Just Cities?: Urban planning and the contradictions of sustainable development', '10.1080/01944369608975696', (1236,)), ('Urban Affairs Review', 'Cities and diversity: Should we want it? Can we plan for it?', '10.1177/1078087405278968', (316,)), ('Journal of the American Planning Association', 'Land use planning challenges: Coping with conflicts in visions of sustainable development and livable communities', '10.1080/01944360408976334', (294,)), ('Planning for Sustainability: Creating Livable, Equitable and Ecological Communities', 'Planning for sustainability: Creating livable, equitable and ecological communities', '10.4324/9780203300565', (277,)), ('Journal of Planning Literature', 'Does sustainable development offer a new direction for planning? Challenges for the twenty-first century', '10.1177/088122017001002', (199,)), ('The Annals of the American Academy of Political and Social Science', 'Toward Just Sustainability in Urban Communities: Building Equity Rights with Sustainable Solutions', '10.1177/0002716203256565', (189,)), ('American journal of political science', 'Local institutions and the politics of urban growth', '10.1111/j.1540-5907.2009.00392.x', (187,)), ('Journal of Planning Education and Research', 'Planning for metropolitan sustainability', '10.1177/0739456X0002000201', (159,)), ('Planning for Sustainability Creating Livable Equitable and Ecological Communities, Second Edition', 'Planning for sustainability: Creating livable equitable and ecological communities, second edition', '10.4324/9780203134559', (126,)), ('Planning Theory and Practice', 'Theory and practice in planning the suburbs: Challenges to implementing new urbanism, smart growth, and sustainability principles', '10.1080/14649350802661683', (124,)), ('Urban Geography', 'Sustainability-as-density and the return of the social: The case of Vancouver, British Columbia', '10.2747/0272-3638.33.7.1055', (123,)), ('Local Environment', "Is 'sustainable city' an oxymoron?", '10.1080/13549839708725535', (117,)), ('Urban Studies', 'Forms of Government and Climate Change Policies in US Cities', '10.1177/0042098012450481', (113,)), ('Environment and Planning B: Planning and Design', 'Sprawl retrofit: Sustainable urban form in unsustainable places', '10.1068/b37048', (111,)), ('Journal of the American Planning Association', "Smart growth's blind side: Sustainable cities need productive urban industrial land", '10.1080/01944363.2011.645274', (106,)), ('Regional Studies', 'Regions, megaregions, and sustainability', '10.1080/00343400701861344', (104,)), ('Sunburnt Cities: The Great Recession, Depopulation and Urban Planning in the American Sunbelt', 'Sunburnt cities: The Great Recession, depopulation and urban planning in the American Sunbelt', '10.4324/9780203834381', (102,)), ('Nature Computational Science', 'Spatial planning of urban communities via deep reinforcement learning', '10.1038/s43588-023-00503-5', (90,)), ('Cities', 'Spatial econometrics, land values and sustainability: Trends in real estate valuation research', '10.1016/j.cities.2012.06.006', (89,)), ('Local Environment', 'Smart growth and sustainable development: Challenges, solutions and policy directions', '10.1080/1354983022000027578', (87,))]
5-17	Land Cover	53	2021.64	rpsc manila solar pavement energy uhi temperature asphalt tcc exposure	[('Procedia Engineering', 'Research on Urban Heat-Island Effect', '10.1016/j.proeng.2016.10.002', (207,)), ("Earth's Future", 'Future Population Exposure to Daytime and Nighttime Heat Waves in South Asia', '10.1029/2021EF002511', (101,)), ('IOP Conference Series: Materials Science and Engineering', 'Road infrastructure development and economic growth', '10.1088/1757-899X/512/1/012045', (88,)), ('Current Opinion in Environmental Sustainability', 'Future of Asian Deltaic Megacities under sea level rise and land subsidence: current adaptation pathways for Tokyo, Jakarta, Manila, and Ho Chi Minh City', '10.1016/j.cosust.2021.02.010', (84,)), ('Geocarto International', 'Per-pixel and object-oriented classification methods for mapping urban land cover extraction using SPOT 5 imagery', '10.1080/10106049.2013.848944', (59,)), ('Sustainable Cities and Society', 'Solar energy harvesting pavements on the road: comparative study and performance assessment', '10.1016/j.scs.2022.103868', (46,)), ('Buildings', 'Increasing Solar Reflectivity of Building Envelope Materials to Mitigate Urban Heat Islands: State-of-the-Art Review', '10.3390/buildings13112868', (41,)), ('Journal of the Indian Society of Remote Sensing', 'Remote Sensing Data Reveals Eco-Environmental Changes in Urban Areas of Klang Valley, Malaysia: Contribution from Object Based Analysis', '10.1007/s12524-013-0289-9', (39,)), ('Energy', 'A study of the impact of building geometry on the thermal performance of road pavement solar collectors', '10.1016/j.energy.2015.09.128', (32,)), ('Science of the Total Environment, The', 'Future population exposure to heatwaves in 83 global megacities', '10.1016/j.scitotenv.2023.164142', (31,)), ('Environment International', 'Global future population exposure to heatwaves', '10.1016/j.envint.2023.108049', (24,)), ('Remote Sensing', 'Assessment of Intra-Urban Heat Island in a Densely Populated City Using Remote Sensing: A Case Study for Manila City', '10.3390/rs14215573', (22,)), ('Sustainable Cities and Society', 'Young urban households in Shanghai, China: Characteristics of energy use and attitudes', '10.1016/j.scs.2020.102174', (21,)), ('Urban Climate', 'Urbanization effects on high-frequency temperature variability over South China', '10.1016/j.uclim.2022.101092', (19,)), ('Sustainability', 'Investigating the relationship between human activity and the urban heat island effect in Melbourne and four other international cities impacted by COVID-19', '10.3390/su14010378', (19,)), ('Applied Energy', 'Thermal performance of a controllable pavement solar collector prototype with configuration flexibility', '10.1016/j.apenergy.2022.118908', (18,)), ('Science of the Total Environment, The', 'Temperature change and electricity consumption of the group living: A case study of college students', '10.1016/j.scitotenv.2021.146574', (18,)), ('Building Simulation', 'Developing occupant archetypes within urban low-income housing: A case study in Mumbai, India', '10.1007/s12273-022-0889-9', (18,)), ('IOP Conference Series: Earth and Environmental Science', 'Landsat observation of urban growth and land use change using NDVI and NDBI analysis', '10.1088/1755-1315/1067/1/012037', (17,)), ('Urban Design International', 'Climate and urban form', '10.1057/udi.2012.2', (15,))]
5-3	Land Cover	580	2021.56	lulc lst land cover vegetation changes km utfvi landsat built	[('ISPRS Journal of Photogrammetry and Remote Sensing', 'Characterizing the relationship between land use land cover change and land surface temperature', '10.1016/j.isprsjprs.2017.01.001', (584,)), ('Annals of Botany', 'Agricultural use of wetlands: Opportunities and limitations', '10.1093/aob/mcp172', (301,)), ('Land Use Policy', 'Monitoring land use and land cover changes in the mountainous cities of Oman using GIS and CA-Markov modelling techniques', '10.1016/j.landusepol.2019.104414', (290,)), ('Remote Sensing Applications: Society and Environment', 'Modelling future land use land cover changes and their impacts on land surface temperatures in Rajshahi, Bangladesh', '10.1016/j.rsase.2020.100314', (223,)), ('Sustainable Cities and Society', 'Prediction of seasonal urban thermal field variance index using machine learning algorithms in Cumilla, Bangladesh', '10.1016/j.scs.2020.102542', (188,)), ('Geomatics, Natural Hazards and Risk', 'Land use change modelling using a Markov model and remote sensing', '10.1080/19475705.2013.795502', (183,)), ('Geography Compass', 'Vegetation Indices, Remote Sensing and Forest Monitoring', '10.1111/j.1749-8198.2012.00507.x', (156,)), ('Sustainability', 'Land use and land cover change detection and prediction in the kathmandu district of nepal using remote sensing and GIS', '10.3390/su12093925', (144,)), ('Environmental Challenges', 'Cellular Automata approach in dynamic modelling of land cover changes using RapidEye images in Dhaka, Bangladesh', '10.1016/j.envc.2021.100084', (129,)), ('Egyptian Journal of Remote Sensing and Space Science', 'Spatiotemporal Land Use Land Cover change analysis and erosion risk mapping of Azad Jammu and Kashmir, Pakistan', '10.1016/j.ejrs.2014.09.004', (129,)), ('ISPRS International Journal of Geo-Information', 'Land use and land cover change modeling and future potential landscape risk assessment using Markov-CA model and analytical hierarchy process', '10.3390/ijgi9020134', (122,)), ('Environment, Development and Sustainability', 'Examination of land use/land cover changes, urban growth dynamics, and environmental sustainability in Chittagong city, Bangladesh', '10.1007/s10668-015-9672-8', (119,)), ('Environmental Monitoring and Assessment', 'Detection and prediction of land use/land cover change using spatiotemporal data fusion and the Cellular Automata–Markov model', '10.1007/s10661-019-7200-2', (117,)), ('Sustainable Cities and Society', 'Machine learning and remote sensing integration for leveraging urban sustainability: A review and framework', '10.1016/j.scs.2023.104653', (117,)), ('Environmental Earth Sciences', 'Land surface temperature relation with normalized satellite indices for the estimation of spatio-temporal trends in temperature among various land use land cover classes of an arid Potohar region using Landsat data', '10.1007/s12665-019-8766-2', (116,)), ('Building and Environment', 'Predicting the impacts of land use/land cover changes on seasonal urban thermal characteristics using machine learning algorithms', '10.1016/j.buildenv.2022.109066', (115,)), ('Case Studies in Chemical and Environmental Engineering', 'Identifying the land use land cover (LULC) changes using remote sensing and GIS approach: A case study at Bhaluka in Mymensingh, Bangladesh', '10.1016/j.cscee.2022.100293', (115,)), ('Remote Sensing Applications: Society and Environment', 'Remote sensing approach to simulate the land use/land cover and seasonal land surface temperature change using machine learning algorithms in a fastest-growing megacity of Bangladesh', '10.1016/j.rsase.2020.100463', (114,)), ('Groundwater for Sustainable Development', 'Impact of urbanization on land use and land cover change in Guwahati city, India and its implication on declining groundwater level', '10.1016/j.gsd.2020.100500', (114,)), ('Sustainable Cities and Society', 'The spatio-temporal trends of urban growth and surface urban heat islands over two decades in the Semarang Metropolitan Region', '10.1016/j.scs.2019.101432', (114,))]

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5-13	Land Cover	147	2020.18	land ethiopia ha lulc addis ababa cover lulcc expansion algiers	[('Environmental Systems Research', 'Natural resource degradation tendencies in Ethiopia: a review', '10.1186/s40068-020-00194-1', (329,)), ('Landscape and Urban Planning', 'The dynamics of urban expansion and its impacts on land use/land cover change and small-scale farmers living near the urban fringe: A case study of Bahir Dar, Ethiopia', '10.1016/j.landurbplan.2012.02.016', (190,)), ('International Journal of Remote Sensing', 'The dynamics of urban expansion and land use/land cover changes using remote sensing and spatial metrics: The case of Mekelle city of northern Ethiopia', '10.1080/01431161.2017.1317936', (150,)), ('Land', 'Land use and land cover change in the bale mountain eco-region of Ethiopia during 1985 to 2015', '10.3390/land5040041', (136,)), ('Ocean and Coastal Management', 'Mapping mangrove changes in the Matang Mangrove Forest using multi temporal satellite imageries', '10.1016/j.ocecoaman.2015.06.005', (115,)), ('Ecology and Society', 'Coupled human and natural systems approach to wildlife research and conservation', '10.5751/ES-06881-19034', (115,)), ('Sustainability', 'Urban expansion in Ethiopia from 1987 to 2017: Characteristics, spatial patterns, and driving forces', '10.3390/su11102973', (111,)), ('Ecological Processes', 'The impacts of land-use and land-cover change on wetland ecosystem service values in peri-urban and urban area of Bahir Dar City, Upper Blue Nile Basin, Northwestern Ethiopia', '10.1186/s13717-021-00310-8', (102,)), ('Remote Sensing Applications: Society and Environment', 'Mapping of land-use/land-cover changes and its dynamics in Awash River Basin using remote sensing and GIS', '10.1016/j.rsase.2020.100352', (102,)), ('Ecological Processes', 'Land use change in highland area and its impact on river water quality: a review of case studies in Malaysia', '10.1186/s13717-018-0126-8', (94,)), ('Cogent Food and Agriculture', 'Impact of land use/cover changes on lake ecosystem of Ethiopia central rift valley', '10.1080/23311932.2019.1595876', (93,)), ('Journal of Urban Management', 'Quantification of the land use/land cover dynamics and the degree of urban growth goodness for sustainable urban land use planning in Addis Ababa and the surrounding Oromia special zone', '10.1016/j.jum.2018.11.002', (90,)), ('Sustainability', 'Quantitatively Assessing the Future Land-Use/Land-Cover Changes and Their Driving Factors in the Upper Stream of the Awash River Based on the CA–Markov Model and Their Implications for Water Resources Management', '10.3390/su14031538', (82,)), ('Physics & Chemistry of the Earth', 'Influence of urbanization-driven land use/cover change on climate: The case of Addis Ababa, Ethiopia', '10.1016/j.pce.2018.02.009', (80,)), ('Journal of Urban and Environmental Engineering', 'Application of the overlay weighted model and boolean logic to determine the best locations for artificial recharge of groundwater', '10.4090/juee.2011.v5n2.057066', (78,)), ('New Zealand Journal of Agricultural Research', 'Intensification of New Zealand agriculture: Implications for biodiversity', '10.1080/00288230809510453', (75,)), ('Land Use Policy', 'Policies and praxis of land acquisition, use, and development in Ethiopia', '10.1016/j.landusepol.2018.01.017', (75,)), ('Journal of Land Use Science', 'Land use/land cover dynamics and their driving forces in the Hirmi watershed and its adjacent agro-ecosystem, highlands of Northern Ethiopia', '10.1080/1747423X.2013.845614', (68,)), ('Agriculture and Food Security', 'The implications of land use and land

					cover changes for rural household food insecurity in the Northeastern highlands of Ethiopia: The case of the Teleyayen sub-watershed', '10.1186/s40066-017-0134-4', (67,)), ('Environmental Systems Research', 'Spatiotemporal trends of urban land use/land cover and green infrastructure change in two Ethiopian cities: Bahir Dar and Hawassa', '10.1186/s40068-018-0111-3', (62,))]
5-8	Land Cover	207	2020.18	wetland wetlands coastal biodiversity ekw ecosystem kolkata lulc conservation land	[('Ecological Economics', 'The coasts of our world: Ecological, economic and social importance', '10.1016/j.ecolecon.2006.10.022', (808,)), ('Ocean and Coastal Management', 'Overcoming the impacts of aquaculture on the coastal zone', '10.1016/j.ocecoaman.2006.06.018', (420,)), ('Remote Sensing of Environment', 'Monitoring biodiversity in the Anthropocene using remote sensing in species distribution models', '10.1016/j.rse.2019.111626', (224,)), ('Frontiers in Ecology and Evolution', 'Anthropogenic, Direct Pressures on Coastal Wetlands', '10.3389/fevo.2020.00144', (201,)), ('Remote Sensing of Environment', 'Mapping rice paddy extent and intensification in the Vietnamese Mekong River Delta with dense time stacks of Landsat data', '10.1016/j.rse.2015.08.004', (178,)), ('Brazilian Journal of Biology', 'Biodiversity of the Pantanal: Response to seasonal flooding regime and to environmental degradation', '10.1590/S1519-69842008000500005', (163,)), ('Environment, Development and Sustainability', 'Significant impacts of COVID-19 lockdown on urban air pollution in Kolkata (India) and amelioration of environmental health', '10.1007/s10668-020-00898-5', (139,)), ('Water (Switzerland)', 'Urban wetlands: A review on ecological and cultural values', '10.3390/w13223301', (138,)), ('Land Use Policy', 'Urban development versus wetland loss in a coastal Latin American city: Lessons for sustainable land use planning', '10.1016/j.landusepol.2018.09.036', (123,)), ('Journal of Cleaner Production', 'Wetland conversion risk assessment of East Kolkata Wetland: A Ramsar site using random forest and support vector machine model', '10.1016/j.jclepro.2020.123475', (95,)), ('Water (Switzerland)', 'Priorities and interactions of Sustainable Development Goals (SDGs) with focus on wetlands', '10.3390/w11030619', (95,)), ('Wetlands', 'Linking ecosystem processes with wetland management goals: Charting a course for a sustainable future', '10.1672/07-154.1', (94,)), ('Journal of Environmental Management', 'Application of geographically weighted regression models to predict spatial characteristics of nitrate contamination: Implications for an effective groundwater management strategy', '10.1016/j.jenvman.2020.110646', (92,)), ('Applied Geography', 'Assessing land-use and -cover changes in relation to geographic factors and urban planning in the metropolitan area of Concepción (Chile). Implications for biodiversity conservation', '10.1016/j.apgeog.2012.12.007', (84,)), ('Journal of Cleaner Production', 'Toward urban sustainability and clean potable water: Prediction of water quality via artificial neural networks', '10.1016/j.jclepro.2020.125266', (74,)), ('International Journal of Applied Earth Observation and Geoinformation', 'Assessing SAR C-band data to effectively distinguish modified land uses in a heavily disturbed Amazon forest', '10.1016/j.jag.2020.102214', (73,)), ('Ecological Indicators', 'A rapid assessment of anthropogenic disturbances in East African wetlands', '10.1016/j.ecolind.2016.03.034', (72,)), ('Frontiers in Environmental Science', 'Social-Environmental Analysis for the Management of Coastal Lagoons in North Africa', '10.3389/fenvs.2020.00037', (72,)), ('Ecological Economics', 'Modelling biodiversity and land use: Urban growth, agriculture and nature in a wetland area', '10.1016/j.ecolecon.2004.04.011', (72,)), ('Ecology and Society', 'Coupled human and natural system dynamics as key to the sustainability of Lake Victoria's Ecosystem services', '10.5751/ES-06965-190431', (70,))]
5-5	Land Cover	430	2020.00	ghana kumasi land africa urban urbanisation african peri accra planning	[('Technology in Society', 'Urbanization in developing countries: Current trends, future projections, and key challenges for sustainability', '10.1016/j.techsoc.2005.10.005', (1458,)), ('Habitat International', 'The trends, promises and challenges of urbanisation in the world', '10.1016/j.habitatint.2015.11.018', (346,)), ('Cities', "Africa's urbanisation: Implications for sustainable development", '10.1016/j.cities.2015.03.013', (308,)), ('American Journal of Tropical Medicine and Hygiene', 'Urbanization in sub-Saharan Africa and implication for malaria control', '10.4269/ajtmh.2004.71.118', (247,)), ('Environmental Development', 'Rethinking sustainable development within the framework of poverty and urbanisation in developing countries', '10.1016/j.envdev.2014.11.001', (212,)), ('Annals of African Medicine', 'Urbanization, cities, and health: The challenges to Nigeria - A review', '10.4103/aam.aam_1_17', (170,)), ('Cities', 'Accra', '10.1016/S0264-2751(02)00090-2', (145,)), ('Stability', 'The urban crisis in Sub-Saharan Africa: A threat to human security and sustainable development', '10.5334/sta.ap', (135,)), ('Urban Science', 'Land-Use/Land-Cover Change Analysis and Urban Growth Modelling in the Greater Accra Metropolitan Area (GAMA), Ghana', '10.3390/urbansci3010026', (131,)), ('Environment, Development and Sustainability', 'Sustainable urban planning strategies for mitigating climate change in Saudi Arabia', '10.1007/s10668-019-00417-1', (127,)), ('Land Use Policy', "A review of spatial planning in Ghana's socio-economic development trajectory: A sustainable development perspective", '10.1016/j.landusepol.2015.04.020', (125,)), ('International Soil and Water Conservation Research', 'Global achievements in soil and water conservation: The case of Conservation Agriculture', '10.1016/S2095-6339(15)30009-5', (110,)), ('Sustainability', 'Urbanization and urban sprawl issues in city structure: A case of the Sulaymaniah Iraqi Kurdistan region', '10.3390/su11020485', (102,)), ('Land Use Policy', 'Peri-urbanisation and loss of arable land in Kumasi Metropolis in three decades: Evidence from remote sensing image analysis', '10.1016/j.landusepol.2018.01.013', (101,)), ('Cities', 'Urban growth and environmental degradation: The case of Cairo, Egypt', '10.1016/S0264-2751(02)00069-0', (92,)), ('Humanities and Social Sciences Communications', 'Spatial-geographical analysis of urbanization in Iran', '10.1057/s41599-021-00741-w', (91,)), ('Environment, Development and Sustainability', 'Urbanisation without development: Environmental and health implications in African cities', '10.1007/s10668-004-5410-3', (91,)), ('Land', 'Impact of agricultural land loss on rural livelihoods in peri-urban areas: Empirical evidence from sebougou, mali', '10.3390/land9120470', (79,)), ('African Studies', 'Building new capital cities in Africa: Lessons for new satellite towns in developing countries', '10.1080/00020184.2017.1376850', (79,)), ('Environmental Development', 'Urban environmental problems in Ghana', '10.1016/j.envdev.2017.05.001', (79,))]
5-4	Land Cover	512	2019.81	informal slum slums housing settlements upgrading poor poverty community settlement	[('Progress in Planning', '"The planned city sweeps the poor away...': Urban planning and 21st century urbanisation", '10.1016/j.progress.2009.06.002', (507,)), ('ISPRS Journal of Photogrammetry and Remote Sensing', 'Semantic segmentation of slums in satellite images using transfer learning on fully convolutional neural networks', '10.1016/j.isprsjprs.2019.02.006', (344,)), ('One Earth', 'Building Resilience to Climate Change in Informal Settlements', '10.1016/j.oneear.2020.02.002', (269,)), ('Built Environment', 'Forms of informality: Morphology and visibility of informal settlements', '10.2148/benv.37.1.11', (244,)), ('Kyklos', 'Social capital and the quality of economic development', '10.1111/j.1467-6435.2008.00413.x', (156,)), ('Sustainability', 'Formalizing the informal: Understanding the position of informal settlements and slums in sustainable urbanization policies and strategies in Bandung, Indonesia', '10.3390/su9081436', (148,)), ('Social Indicators Research', 'Approaches and Alternatives to the Wealth Index to Measure Socioeconomic Status Using Survey Data: A Critical Interpretive Synthesis', '10.1007/s11205-019-02187-9', (144,)), ('Land', 'Land use change, spatial interaction, and sustainable development in the metropolitan urban areas, south Sulawesi province, Indonesia', '10.3390/land9030095', (130,)), ('Urban Studies', 'The slum upgrading myth', '10.1080/0042098992908', (126,)), ('Habitat International', 'The urban informal economy, local inclusion and achieving a global green transformation', '10.1016/j.habitatint.2015.11.002', (117,)), ('World Development', 'Are we underestimating urban poverty?', '10.1016/j.worlddev.2017.10.022', (108,)), ('Sustainability', 'The effect of sustainable urban planning and slum disamenity on the value of neighboring residential property: Application of the hedonic pricing model in rent price appraisal', '10.3390/su11041144', (104,)), ('Geocarto International', 'Evaluating urban environment quality (UEQ) for Class-I Indian city: an integrated RS-GIS based exploratory spatial analysis', '10.1080/10106049.2022.2153932', (99,)), ('Habitat International', 'Slum upgrading and urban governance: Case studies in three South East Asian cities', '10.1016/j.habitatint.2012.12.002', (95,)), ("World's Poultry Science Journal", 'Sustainable development perspectives of poultry production', '10.1017/S0043933915002433', (92,)), ('Land', 'Land use change, urban agglomeration, and urban sprawl: A sustainable development perspective of makassar city, indonesia', '10.3390/land10060556', (92,)), ('International Journal of Environmental Research and Public Health', 'Slum upgrading and health equity', '10.3390/ijerph14040342', (92,)), ('Atmosphere', 'Experience from integrated air quality management in the Mexico City Metropolitan Area and Singapore', '10.3390/atmos10090512', (91,)), ('Science Advances', 'Toward cities without slums: Topology and the spatial evolution of neighborhoods', '10.1126/sciadv.aar4644', (87,)), ('Sustainability', 'The rapid urban growth Triad: A new conceptual framework for examining the urban transition in developing countries', '10.3390/su9081407', (86,))]

5-12	Land Cover	163	2019.79	pm wind air ventilation cfd pollution canyon canyons pollutant building	[('Annual Review of Fluid Mechanics', 'Flow and dispersion in urban areas', '10.1146/annurev.fluid.35.101101.161147', (807,)), ('Procedia Environmental Sciences', 'Climate and more sustainable cities: Climate information for improved planning and management of cities (Producers/Capabilities Perspective)', '10.1016/j.proenv.2010.09.016', (258,)), ('Nature Sustainability', 'Air quality in megacity Delhi affected by countryside biomass burning', '10.1038/s41893-019-0219-0', (204,)), ('Sustainable Cities and Society', 'Mapping spatial distribution of particulate matter using Kriging and Inverse Distance Weighting at supersites of megacity Delhi', '10.1016/j.scs.2019.101997', (202,)), ('Environmental Fluid Mechanics', 'Urban Fluid Mechanics: Air Circulation and Contaminant Dispersion in Cities', '10.1023/A:1011504001479', (196,)), ('Urban Climate', 'From urban meteorology, climate and environment research to integrated city services', '10.1016/j.uclim.2017.05.004', (155,)), ('Environment International', "Children's health and vulnerability in outdoor microclimates: A comprehensive review", '10.1016/j.envint.2014.11.016', (148,)), ('Atmospheric Environment', 'Temporal variability of trace metal mobility of urban particulate matter from Beijing - A contribution to health impact assessments of aerosols', '10.1016/j.atmosenv.2011.08.067', (146,)), ('Atmospheric Environment', 'Composition and sources of PM around the heating periods of 2013 and 2014 in Beijing: Implications for efficient mitigation measures', '10.1016/j.atmosenv.2015.05.015', (137,)), ('Sustainable Cities and Society', 'Coupled CFD, radiation and building energy model for studying heat fluxes in an urban environment with generic building configurations', '10.1016/j.scs.2015.07.009', (112,)), ('Atmospheric Environment', 'New Directions: Can a "blue sky" return to Indian megacities?', '10.1016/j.atmosenv.2013.01.055', (107,)), ('Sustainable Cities and Society', "Spatial distribution characteristics of PM and PM in Xi'an City predicted by land use regression models", '10.1016/j.scs.2020.102329', (103,)), ('Science of the Total Environment, The', 'The impact of urban open space and 'lift-up' building design on building intake fraction and daily pollutant exposure in idealized urban models', '10.1016/j.scitotenv.2018.03.194', (102,)), ('Sustainable Cities and Society', 'Prediction and evaluation of spatial distributions of ozone and urban heat island using a machine learning modified land use regression method', '10.1016/j.scs.2021.103643', (78,)), ('Journal of Applied Meteorology and Climatology', "Chicago's heat island and climate change: Bridging the scales via dynamical downscaling", '10.1175/JAMC-D-14-0241.1', (78,)), ('Remote Sensing', 'Urban Remote Sensing with Spatial Big Data: A Review and Renewed Perspective of Urban Studies in Recent Decades', '10.3390/rs15051307', (75,)), ('Atmospheric Chemistry and Physics', 'Anthropogenic and natural drivers of a strong winter urban heat island in a typical Arctic city', '10.5194/acp-18-17573-2018', (72,)), ('Sustainable Cities and Society', 'Urban ventilation of typical residential streets and impact of building form variation', '10.1016/j.scs.2021.102735', (62,)), ('Indoor and Built Environment', 'Development trend and challenges of sustainable urban design in the digital age', '10.1177/1420326X20976058', (62,)), ('International Journal of Digital Earth', 'Challenges and opportunities for the development of MEGACITIES', '10.1080/17538947.2018.1512662', (61,))]
5-2	Land Cover	644	2019.31	land sprawl growth lulc ca cover expansion urban markov km	[('International Journal of Geographical Information Science', 'Modelling sustainable urban development by the integration of constrained cellular automata and GIS', '10.1080/136588100240886', (572,)), ('Ecological Modelling', 'Modeling urban land use change by the integration of cellular automaton and Markov model', '10.1016/j.ecolmodel.2011.09.009', (535,)), ('International Journal of Sustainable Built Environment', 'Monitoring urban growth and land use change detection with GIS and remote sensing techniques in Daqahlia governorate Egypt', '10.1016/j.ijsbe.2015.02.005', (428,)), ('Landscape and Urban Planning', 'Urban growth pattern modeling: A case study of Wuhan City, PR China', '10.1016/S0169-2046(02)00150-0', (401,)), ('Applied Geography', 'Spatiotemporal urbanization processes in the megacity of Mumbai, India: A Markov chains-cellular automata urban growth model', '10.1016/j.apgeog.2013.01.009', (333,)), ('International Journal of Applied Earth Observation and Geoinformation', 'The simulation and prediction of spatio-temporal urban growth trends using cellular automata models: A review', '10.1016/j.jag.2016.07.007', (274,)), ('Landscape and Urban Planning', 'Application of an integrated system dynamics and cellular automata model for urban growth assessment: A case study of Shanghai, China', '10.1016/j.landurbplan.2008.12.002', (270,)), ('Egyptian Journal of Remote Sensing and Space Science', 'Monitoring land use change and measuring urban sprawl based on its spatial forms: The case of Qom city', '10.1016/j.ejrs.2016.08.002', (234,)), ('Landscape and Urban Planning', 'Urban growth of Kampala, Uganda: Pattern analysis and scenario development', '10.1016/j.landurbplan.2012.03.006', (206,)), ('Cities', 'Urban sprawl, food security and agricultural systems in developing countries: A systematic review of the literature', '10.1016/j.cities.2019.06.001', (204,)), ('Geo-Spatial Information Science', 'Urban sprawl and its impact on sustainable urban development: a combination of remote sensing and social media data', '10.1080/10095020.2020.1787800', (193,)), ('International Journal of Applied Earth Observation and Geoinformation', 'Improving the capability of an integrated CA-Markov model to simulate spatio-temporal urban growth trends using an Analytical Hierarchy Process and Frequency Ratio', '10.1016/j.jag.2017.03.006', (180,)), ('ISPRS International Journal of Geo-Information', 'Simulating urban growth using a random forest-cellular automata (RF-CA) model', '10.3390/ijgi4020447', (175,)), ('Environment and Planning B: Planning and Design', 'A constrained CA model for the simulation and planning of sustainable urban forms by using GIS', '10.1068/b2740', (173,)), ('ISPRS International Journal of Geo-Information', 'Land cover mapping analysis and urban growth modelling using remote sensing techniques in greater Cairo region-Egypt', '10.3390/ijgi4031750', (165,)), ('International Journal of Sustainable Built Environment', 'Urban sprawl and its impact on landuse/land cover dynamics of Dehradun City, India', '10.1016/j.ijsbe.2017.10.003', (163,)), ('ISPRS International Journal of Geo-Information', 'Monitoring and modeling of spatiotemporal urban expansion and land-use/land-cover change using integrated Markov chain cellular automata model', '10.3390/ijgi6090288', (159,)), ('ISPRS Journal of Photogrammetry and Remote Sensing', 'Spatio-temporal modelling of informal settlement development in Sancaktepe district, Istanbul, Turkey', '10.1016/j.isprsjprs.2010.10.002', (154,)), ('Remote Sensing', 'Urban sprawl analysis and modeling in Asmara, Eritrea', '10.3390/rs3102148', (147,)), ('Urban Climate', 'Simulating urban land use and cover dynamics using cellular automata and Markov chain approach in Addis Ababa and the surrounding', '10.1016/j.uclim.2019.100545', (144,))]
5-14	Land Cover	115	2018.97	cool heat energy uhi roof precipitation water ac phoenix thermal	[('International Journal of Applied Earth Observation and Geoinformation', 'Multitemporal settlement and population mapping from landsatusing google earth engine', '10.1016/j.jag.2014.09.005', (284,)), ('Journal of the American Planning Association', 'The impact of the Phoenix urban heat Island on residential water use', '10.1080/01944360708977980', (240,)), ('Journal of Geophysical Research Atmospheres', 'Impacts of urban expansion and future green planting on summer precipitation in the Beijing metropolitan area', '10.1029/2008JD010328', (237,)), ('Nature Climate Change', 'Summer-time climate impacts of projected megapolitan expansion in Arizona', '10.1038/nclimate1656', (204,)), ('Journal of Applied Meteorology and Climatology', 'Observed link of extreme hourly precipitation changes to urbanization over coastal South China', '10.1175/JAMC-D-18-0284.1', (193,)), ('Energy and Built Environment', 'A study on the comparative review of cool roof thermal performance in various regions', '10.1016/j.enbenv.2021.03.001', (149,)), ('Bulletin of the American Meteorological Society', 'Urban heat island research in phoenix, Arizona', '10.1175/BAMS-D-11-00011.1', (126,)), ('Environmental Research Letters', 'Investigating the climate impacts of urbanization and the potential for cool roofs to counter future climate change in Southern California', '10.1088/1748-9326/11/12/124027', (81,)), ('Environmental Research Letters', 'Assessing summertime urban air conditioning consumption in a semiarid environment', '10.1088/1748-9326/8/3/034022', (80,)), ('Solar Energy', 'A comparative study of the thermal and radiative impacts of photovoltaic canopies on pavement surface temperatures', '10.1016/j.solener.2006.11.007', (76,)), ('Handbook of Energy Efficiency in Buildings: A Life Cycle Approach', 'Handbook of energy efficiency in buildings: A life cycle approach', '10.1016/C2016-0-02638-4', (75,)), ('Environmental Research Letters', 'Seasonal hydroclimatic impacts of Sun Corridor expansion', '10.1088/1748-9326/7/3/034026', (74,)), ('Landscape Ecology', 'Impacts of landscape changes on local and regional climate: a systematic review', '10.1007/s10980-020-01015-7', (74,)), ('International Journal of Applied Earth Observation and Geoinformation', 'A synthesis of remote sensing and local knowledge approaches in land degradation assessment in the Bawku East District, Ghana', '10.1016/j.jag.2011.09.016', (71,)), ('Agricultural Sciences in China', 'The Potential Contribution of Subsurface Drip Irrigation to Water-Saving Agriculture in the Western USA', '10.1016/S1671-2927(08)60287-4', (71,)), ('Sustainable Cities and Society', 'The impact of plug-in behavior on the spatial–temporal flexibility of electric vehicle charging load', '10.1016/j.scs.2022.104263', (70,)), ('Building and Environment', 'Tree shade coverage optimization in an urban residential environment', '10.1016/j.buildenv.2017.01.036', (69,)), ('Environmental Health: A Global Access Science Source', 'Challenges and Opportunities for Urban Environmental Health and Sustainability: The HEALTHY-POLIS initiative', '10.1186/s12940-016-0096-1', (63,)), ('Environmental Research', 'Associations between growing up in natural environments and subsequent psychiatric disorders in Denmark', '10.1016/j.envres.2020.109788', (53,)), ('International Journal of Sustainable Energy', 'Properties and performance of advanced reflective paints to reduce the cooling loads in buildings and mitigate the heat island effect in urban areas', '10.1080/14786450802453314', (53,))]
5-16	Land Cover	80	2018.75	courtyard courtyards coastal lulc housing shoreline microclimate conflict estuaries egyptian	[('Journal of Urban Health', 'Climate change and developing-country cities: Implications for environmental health and equity', '10.1007/s11524-007-9170-x', (225,)), ('Wetlands Ecology and Management', 'Ecohydrology as a new tool for sustainable management of estuaries and coastal waters', '10.1007/s11273-005-4752-4', (147,)), ('Renewable and Sustainable Energy Reviews', 'Reviewing the thermal and microclimatic function of courtyards', '10.1016/j.rser.2018.05.055', (118,)), ('Surveys in Geophysics', 'The Contribution of Wind-Generated Waves to Coastal Sea-Level Changes', '10.1007/s10712-019-09557-5', (87,)), ('Energy Procedia', 'Outdoor microclimatic validation for hybrid simulation workflow in hot arid climates against ENVI-met and field measurements', '10.1016/j.egypro.2018.10.009', (86,)), ('Land', 'Monitoring of changes in land use/land cover in Syria from 2010 to 2018 using multitemporal landsat imagery and GIS', '10.3390/land9070226', (79,)), ('Surveys in Geophysics', 'Observation of the Coastal Areas, Estuaries and Deltas from Space', '10.1007/s10712-022-09757-6', (63,)), ('Annales de Limnologie', 'Review on the major ecosystem impacts caused by damming and watershed development in an Iberian basin (SW-Europe): Focus on the Guadiana estuary', '10.1051/limn:2008012', (49,)), ('Building Simulation', 'Would LEED-UHI greenery and high albedo strategies mitigate climate change at neighborhood scale in Cairo, Egypt?', '10.1007/s12273-018-0463-7', (45,)), ('Global Journal of Environmental Science and Management', 'Impact of urban land cover change on land surface temperature', '10.22034/gjesm.2018.04.01.005', (41,)), ('Environmental Monitoring and Assessment', 'Decadal changes in the land use/land cover and shoreline along the coastal districts of southern Gujarat, India', '10.1007/s10661-015-4684-2', (33,)), ('Atmosphere', 'A review and insights for eleven years of urban microclimate research towards a new Egyptian era of low carbon, comfortable and energy-efficient housing typologies', '10.3390/atmos11030236', (33,)), ('Geocarto International', 'Modelling the impacts of civil war on land use and land cover change within Kono District, Sierra Leone: A socio-geospatial approach', '10.1080/10106049.2012.724456', (30,)), ('Coastal Management', 'Involving geospatial information in the analysis of land-cover change along the Tanzania coast', '10.1080/08920750590883132', (25,)), ('Urban Climate', 'Could/should improving the urban climate in informal areas of fast-growing cities be an integral part of upgrading processes? Cairo case', '10.1016/j.uclim.2018.01.007', (25,)), ('AEJ - Alexandria Engineering Journal', 'Toward sustainable urban growth: Spatial modeling for the impact of cultural and natural heritage on city growth and their role in developing sustainable tourism', '10.1016/j.aej.2023.02.001', (24,)), ('Environmental Monitoring and Assessment', 'Mapping deforestation and urban expansion in Freetown, Sierra Leone, from pre- to post-war economic recovery', '10.1007/s10661-016-5469-y', (23,)), ('Procedia Engineering', 'The Influence of Urban Geometry on Thermal Comfort and Energy Consumption in Residential Building of Hot Arid Climate, Assiut, Egypt', '10.1016/j.proeng.2015.08.1043', (23,)), ('Sustainability', 'Assessing Coastal Land-Use and Land-Cover Change Dynamics Using Geospatial Techniques', '10.3390/su15097398', (22,)), ('International Journal of Remote Sensing', 'Spectral analysis of civil conflict-induced forced migration on land-use/land-cover change: The case of a primate and lower-ranked cities in Sierra Leone', '10.1080/01431161.2013.875633', (22,))]

5-10	Land Cover	193	2018.04	suitability suitable land ahp gis criteria map sites use hierarchy	[('International Journal of Hygiene and Environmental Health', 'Global urbanization and impact on health', '10.1078/1438-4639-00223', (442,)), ('Environmental Earth Sciences', 'Potential suitability for urban planning and industry development using natural hazard maps and geological-geomorphological parameters', '10.1007/s12665-011-1263-x', (292,)), ('Engineering Geology', 'Karst collapse susceptibility mapping considering peak ground acceleration in a rapidly growing urban area', '10.1016/j.enggeo.2013.02.009', (178,)), ('Environmental Impact Assessment Review', 'Evaluation of urban land-use structures with a view to sustainable development', '10.1016/S0195-9255(02)00023-9', (145,)), ('GIScience and Remote Sensing', 'GIS-based modeling for the spatial measurement and evaluation of mixed land use development for a compact city', '10.1080/15481603.2014.993854', (139,)), ('Landscape and Urban Planning', 'Urban land-use allocation in a Mediterranean ecotone: Habitat Heterogeneity Model incorporated in a GIS using a multi-criteria mechanism', '10.1016/j.landurbplan.2004.05.001', (107,)), ('Landscape and Urban Planning', 'Integration of GIS and multicriteria decision analysis for urban aquaculture development in Bangladesh', '10.1016/j.landurbplan.2008.10.020', (101,)), ('Water Resources Management', 'Mapping Urban Water Demands Using Multi-Criteria Analysis and GIS', '10.1007/s11269-011-9962-3', (83,)), ('Procedia Engineering', 'Land Suitability Analysis of Urban Growth in Seremban Malaysia, Using GIS Based Analytical Hierarchy Process', '10.1016/j.proeng.2017.07.155', (78,)), ('Procedia Engineering', 'Application of sustainable urban development in environmental suitability analysis of educational land use by using AHP and GIS in Tehran', '10.1016/j.proeng.2011.11.1989', (74,)), ('Sensors', 'Flood hazard assessment of the urban area of Tabuk city, Kingdom of Saudi Arabia by integrating spatial-based hydrologic and hydrodynamic modeling', '10.3390/s19051024', (70,)), ('Land Degradation & Development', 'Assessment of land cover and land use change impact on soil loss in a tropical catchment by using multitemporal SPOT-5 satellite images and Revised Universal Soil Loss Equation model', '10.1002/ldr.3112', (69,)), ('Applied Water Science', 'Comparative analysis of groundwater potentiality zone using fuzzy AHP, frequency ratio and Bayesian weights of evidence methods', '10.1007/s13201-022-01591-w', (63,)), ('Earth System Dynamics', 'Urbanization suitability maps: A dynamic spatial decision support system for sustainable land use', '10.5194/esd-3-157-2012', (55,)), ('Habitat International', 'The future of landscapes and habitats: The regional science contribution to the understanding of geographical space', '10.1016/j.habitatint.2015.10.004', (53,)), ('Journal of Coastal Conservation', 'Monitoring and assessing waterlogged and salt-affected areas in the Eastern Nile Delta region, Egypt, using remotely sensed multi-temporal data and GIS', '10.1007/s11852-015-0397-5', (52,)), ('Journal of Coastal Conservation', 'GIS and remote sensing as tools for conducting geo-hazards risk assessment along Gulf of Aqaba coastal zone, Egypt', '10.1007/s11852-010-0136-x', (50,)), ('Habitat International', 'Urban heritage endangerment at the interface of future cities and past heritage: A spatial vulnerability assessment', '10.1016/j.habitatint.2011.10.007', (48,)), ('Applied Spatial Analysis and Policy', 'Sustainable Brownfields Land Use Change Modeling Using GIS-based Weights-of-Evidence Approach', '10.1007/s12061-015-9139-1', (48,)), ('Ocean and Coastal Management', 'Recent developments in coastal zone management in France: The transition towards integrated coastal zone management (1973-2007)', '10.1016/j.ocecoaman.2007.09.005', (45,))]
5-11	Land Cover	187	2017.77	peri land jakarta rural indonesia urban spatial semarang sprawl metropolitan	[('Habitat International', 'The continuity and change in mega-urbanization in Indonesia: A survey of Jakarta-Bandung Region (JBR) development', '10.1016/j.habitatint.2008.08.005', (188,)), ('Cities', 'Urban sprawl and land conversion in post-socialist cities: The case of metropolitan Budapest', '10.1016/j.cities.2019.03.018', (145,)), ('Planning Practice & Research', 'Sustainable Planning of Peri-Urban Areas: Introduction to the Special Issue', '10.1080/02697459.2017.1264191', (110,)), ('Crime and violence as development issues in Latin America and the Caribbean', 'Crime and violence as development issues in Latin America and the Caribbean', 'NO DOI', (100,)), ('Peri-Urban Futures: Scenarios and Models for Land use Change in Europe', 'Peri-urban futures: Scenarios and models for land use change in Europe', '10.1007/978-3-642-30529-0', (99,)), ('International Development Planning Review', 'Peri-urbanisation in East Asia: A new challenge for planning?', '10.3828/idpr.29.4.4', (98,)), ('Land Use Policy', 'Land administration "best practice" providing the infrastructure for land policy implementation', '10.1016/S0264-8377(01)00021-7', (92,)), ('Land Use Policy', 'Land tenure-related conflicts in peri-urban areas: A review', '10.1016/j.landusepol.2019.03.051', (89,)), ('Urban poverty and violence in Jamaica', 'Urban poverty and violence in Jamaica', 'NO DOI', (88,)), ('Land Use Policy', "Informal settlements' needs and environmental conservation in Mexico City: An unsolved challenge for land-use policy", '10.1016/j.landusepol.2010.11.002', (72,)), ('Land Use Policy', 'Growth, crisis and spatial change: A study of haphazard urbanisation in Jakarta, Indonesia', '10.1016/S0264-8377(99)00043-5', (72,)), ('Land Use Policy', 'Formal land rights versus informal land rights: Governance for sustainable urbanization in the Jakarta metropolitan region, Indonesia', '10.1016/j.landusepol.2014.10.016', (66,)), ('Land Use Policy', 'Land use policy shocks in the post-communist urban fringe: A case study of Estonia', '10.1016/j.landusepol.2012.02.008', (61,)), ('Research Policy', 'Transformative innovation in peri-urban Asia', '10.1016/j.respol.2018.10.007', (61,)), ('GeoJournal', 'Urbanization and sustainable metropolitan development in China: Patterns, problems and prospects', '10.1023/A:1007190305381', (59,)), ('International Journal of Remote Sensing', 'Monitoring urban to peri-urban development with integrated remote sensing and GIS information: A Leipzig, Germany case study', '10.1080/01431160802642297', (55,)), ('Environmental Monitoring and Assessment', 'Tracing land use and land cover change in peri-urban Delhi, India, over 1973–2017 period', '10.1007/s10661-020-08841-x', (53,)), ('Urban Geography', 'Selective modernization of Mexico City and its historic center. Gentrification without displacement?', '10.1080/02723638.2015.1096114', (52,)), ('Frontiers in Sustainable Cities', 'Peri-Urbanization and Land Use Fragmentation in Mexico City. Informality, Environmental Deterioration, and Ineffective Urban Policy', '10.3389/frsc.2022.790474', (47,)), ('Sustainable Cities and Society', 'Theorizing spatial dynamics of metropolitan regions: A preliminary study in Java and Madura Islands, Indonesia', '10.1016/j.scs.2017.08.022', (47,))]
5-7	Land Cover	273	2016.37	land dhaka forest lulc bangladesh cover change area sprawl landscape	[('Applied Geography', 'Land use and land cover change in Greater Dhaka, Bangladesh: Using remote sensing to promote sustainable urbanization', '10.1016/j.apgeog.2008.12.005', (899,)), ('Forest Ecology and Management', 'Degradation and restoration of forest ecosystems in China', '10.1016/j.foreco.2004.06.010', (324,)), ('Environmental Monitoring and Assessment', 'Using remote sensing and GIS to detect and monitor land use and land cover change in Dhaka Metropolitan of Bangladesh during 1960-2005', '10.1007/s10661-008-0226-5', (292,)), ('Habitat International', 'Economic development and agricultural land loss in the Pearl River Delta, China', '10.1016/S0197-3975(99)00013-2', (264,)), ('Remote Sensing', 'Development of decadal (1985-1995-2005) land use and land cover database for India', '10.3390/rs70302401', (242,)), ('GeoJournal', 'Dynamics of land use/cover changes and the analysis of landscape fragmentation in Dhaka Metropolitan, Bangladesh', '10.1007/s10708-010-9399-x', (228,)), ('Marine Pollution Bulletin', 'The estuarine quality paradox: Is it possible to define an ecological quality status for specific modified and naturally stressed estuarine ecosystems?', '10.1016/j.marpolbul.2008.11.008', (176,)), ('Floods in a Megacity: Geospatial Techniques in Assessing Hazards, Risk and Vulnerability', 'Floods in a megacity: Geospatial techniques in assessing hazards, risk and vulnerability', '10.1007/978-94-007-5875-9', (157,)), ('Sensors', 'Land use and land cover change in Guangzhou, China, from 1998 to 2003, based on Landsat TM /ETM+ imagery', '10.3390/s7071323', (153,)), ('Environment, Development and Sustainability', 'Urbanization and sustainability: Challenges and strategies for sustainable urban development in Bangladesh', '10.1007/s10668-010-9258-4', (148,)), ('International Journal of Geographical Information Science', 'Sustainable land development model for rapid growth areas using GIS', '10.1080/136588198241941', (144,)), ('International Planning Studies', 'An integrated remote sensing and GIS approach in the monitoring and evaluation of rapid urban growth for sustainable development in the Pearl River Delta, China', '10.1080/13563479708721678', (139,)), ('International Journal of Environment and Sustainable Development', 'Urbanisation and environmental degradation in Dhaka metropolitan area of Bangladesh', '10.1504/IJESD.2012.049178', (109,)), ('Land Use Policy', "Land use/cover change in Ghana's oil city: Assessing the impact of neoliberal economic policies and implications for sustainable fevelopment goal number one – A remote sensing and GIS approach", '10.1016/j.landusepol.2018.02.019', (84,)), ('Landscape and Urban Planning', 'Spatial and temporal dynamics of land use pattern in Turkey: A case study in İnegöl', '10.1016/j.landurbplan.2007.01.007', (71,)), ('Sustainability', 'Genetic-algorithm-optimized sequential model for water temperature prediction', '10.3390/su12135374', (68,)), ('Forest Ecology and Management', 'Assessing rates of forest change and fragmentation in Alabama, USA, using the vegetation change tracker model', '10.1016/j.foreco.2008.12.023', (68,)), ('Land Degradation & Development', 'A remote sensing and GIS integrated study on urbanization with its impact on arable lands: Fuqing City, Fujian Province, China', '10.1002/1099-145X(200007/08)11:4<301::AID-LDR392>3.0.CO;2-N', (65,)), ('Desalination and Water Treatment', 'Impacts of urbanization and land cover dynamics on underground water in Islamabad, Pakistan', '10.5004/dwt.2019.24156', (63,)), ('Landscape Ecology', 'Rate and pattern of forest disturbance in the Klamath-Siskiyou ecoregion, USA between 1972 and 1992', '10.1023/A:1021274701133', (62,))]
5-9	Land Cover	199	2016.19	sleuth growth land scenario scenarios model urban landscape cellular automata	[('Environment and Planning B: Planning and Design', 'Using the SLEUTH urban growth model to simulate the impacts of future policy scenarios on urban land use in the Baltimore-Washington metropolitan area', '10.1068/b2983', (302,)), ('Professional Geographer', 'Monitoring Growth in Rapidly Urbanizing Areas Using Remotely Sensed Data', '10.1111/0033-0124.00232', (232,)), ('Landscape and Urban Planning', "Modeling the dynamics of landscape structure in Asia's emerging desakota regions: A case study in Shenzhen", '10.1016/S0169-2046(00)00136-5', (216,)), ('Applied Geography', 'Modelling the impact of urban growth on agriculture and natural land in Italy to 2030', '10.1016/j.apgeog.2017.12.004', (157,)), ('Environment and Planning B: Planning and Design', 'Modelling future urban scenarios in developing countries: An application case study in Lagos, Nigeria', '10.1068/b29103', (139,)), ('Cities', "Urban sustainability in developing countries' megacities: Modelling and predicting future urban growth in Lagos", '10.1016/S0264-2751(03)00047-7', (134,)), ('Environmental Science and Policy', 'Adaptation to changing water resources in the Ganges basin, northern India', '10.1016/j.envsci.2011.03.005', (131,)), ('Environment and Planning B: Planning and Design', 'Guiding SLEUTH land-use/land-cover change modeling using multicriteria evaluation: Towards dynamic sustainable land-use planning', '10.1068/b37092', (112,)), ('Environmental Modelling and Software', 'Modeling growth and densification processes in suburban regions - Simulation of landscape transition with spatial agents', '10.1016/S1364-8152(03)00030-6', (105,)), ('Nature Communications', 'Cutting the costs of coastal protection by integrating vegetation in flood defences', '10.1038/s41467-021-26887-4', (103,)), ('Journal of Housing and the Built Environment', 'Simulating urban expansion and scenario prediction using a cellular automata urban growth model, SLEUTH, through a case study of Karaj City, Iran', '10.1007/s10901-014-9432-3', (95,)), ('Environmental Monitoring and Assessment', 'The acquisition of impervious surface area from LANDSAT 8 satellite sensor data using urban indices: a comparative analysis', '10.1007/s10661-018-6767-3', (70,)), ('Sustainability', "Growing 'Smart'? Urbanization processes in the Pune urban agglomeration", '10.3390/su9122335', (69,)), ('Environment, Development and Sustainability', 'Scenario-based evaluation of urban development sustainability: an integrative modeling approach to compromise between urbanization suitability index and landscape pattern', '10.1007/s10668-014-9609-7', (65,)), ('Egyptian Journal of Remote Sensing and Space Science', 'Application of geo-spatial techniques and cellular automata for modelling urban growth of a heterogeneous urban fringe', '10.1016/j.ejrs.2017.02.002', (64,)), ('Pedosphere', 'Scenario Prediction and Analysis of Urban Growth Using SLEUTH Model', '10.1016/S1002-0160(12)60007-1', (62,)), ('Global Urbanization', 'Global urbanization', 'NO DOI', (62,)), ('Nature-Based Solutions', 'Embracing Nature-based Solutions to promote resilient marine and coastal ecosystems', '10.1016/j.nbsj.2022.100044', (58,)), ('Stochastic Environmental Research and Risk Assessment', 'Multi-agent based modeling of spatiotemporal dynamical urban growth in developing countries: simulating future scenarios of Lianyungang city, China', '10.1007/s00477-014-0942-z', (57,)), ('GeoJournal Library', 'The Moland Modelling Framework for Urban and Regional Land-Use Dynamics', '10.1007/978-1-4020-5648-2_17', (57,))]

6-1	Landscape	595	2021.22	ugs green parks accessibility park spaces space equity health spatial	[('Landscape and Urban Planning', "Urban green space, public health, and environmental justice: The challenge of making cities 'just green enough'", '10.1016/j.landurbplan.2014.01.017', (3195,)), ('Landscape and Urban Planning', 'A complex landscape of inequity in access to urban parks: A literature review', '10.1016/j.landurbplan.2016.05.017', (671,)), ('Environmental Research Letters', 'Urban nature in a time of crisis: Recreational use of green space increases during the COVID-19 outbreak in Oslo, Norway', '10.1088/1748-9326/abb396', (646,)), ('Environmental Science and Technology', 'Longitudinal effects on mental health of moving to greener and less green urban areas', '10.1021/es403688w', (489,)), ('International Journal of Sustainable Development and World Ecology', 'Using GIS analysis to assess urban green space in terms of accessibility: Case study in Kutahya', '10.1080/13504509.2015.1061066', (384,)), ('International Journal of Environmental Research and Public Health', 'Advancing sustainability through urban green space: Cultural ecosystem services, equity, and social determinants of health', '10.3390/ijerph13020196', (369,)), ('PLoS ONE', 'Public parks and wellbeing in urban areas of the United States', '10.1371/journal.pone.0153211', (256,)), ('Journal of Epidemiology and Community Health', 'Children living in areas with more street trees have lower prevalence of asthma', '10.1136/jech.2007.071894', (246,)), ('Nature Sustainability', 'Social-media data for urban sustainability', '10.1038/s41893-018-0153-6', (237,)), ('Urban Forestry and Urban Greening', 'Public green spaces and human wellbeing: Mapping the spatial inequity and mismatching status of public green space in the Central City of Shanghai', '10.1016/j.ufug.2017.06.018', (235,)), ('Journal of Sustainable Forestry', 'Sustainability of urban coastal area management: A case study on Cide', '10.1080/10549811.2016.1228072', (234,)), ('Air Quality, Atmosphere and Health', 'The effect of urban planning on urban formations determining bioclimatic comfort area's effect using satellitia imagines on air quality: a case study of Bursa city', '10.1007/s11869-019-00742-4', (229,)), ('Environment International', 'Observed inequality in urban greenspace exposure in China', '10.1016/j.envint.2021.106778', (225,)), ('Nature Communications', 'Contrasting inequality in human exposure to greenspace between cities of Global North and Global South', '10.1038/s41467-022-32258-4', (219,)), ('Landscape and Urban Planning', 'Understanding the use of urban green spaces from user-generated geographic information', '10.1016/j.landurbplan.2020.103845', (194,)), ('Scandinavian Journal of Public Health', 'Development of an urban green space indicator and the public health rationale', '10.1177/1403494815615444', (189,)), ('GeoJournal', 'Assessing the role of urban green spaces for human well-being: a systematic review', '10.1007/s10708-021-10474-7', (188,)), ('Ecological Indicators', 'Accessibility to greenspaces: GIS based indicators for sustainable planning in a dense urban context', '10.1016/j.ecolind.2013.11.011', (185,)), ('Ecological Indicators', 'Indicators for green spaces in contrasting urban settings', '10.1016/j.ecolind.2015.10.027', (183,)), ('International Journal of Educational Development', 'An analysis of education inequality in China', '10.1016/j.ijedudev.2014.03.002', (169,))]
6-6	Landscape	397	2020.92	nbs nature solutions adaptation climate mainstreaming eba green nbss change	[('Ecology and Society', 'Nature-based solutions to climate change mitigation and adaptation in urban areas: Perspectives on indicators, knowledge gaps, barriers, and opportunities for action', '10.5751/ES-08373-210239', (1012,)), ('Environmental Research', 'Urban natural environments as nature-based solutions for improved public health – A systematic review of reviews', '10.1016/j.envres.2017.05.040', (724,)), ('Sustainable Cities and Society', 'Urban greening through nature-based solutions – Key characteristics of an emerging concept', '10.1016/j.scs.2019.101620', (311,)), ('Environmental Policy and Governance', 'Towards a Conceptual Framework for The Study of Shifts in Modes of Environmental Governance - Experiences From The Netherlands', '10.1002/eet.1580', (280,)), ('Global Environmental Change', 'Cascades of green: A review of ecosystem-based adaptation in urban areas', '10.1016/j.gloenvcha.2015.11.003', (274,)), ('Land Use Policy', 'Nexus between nature-based solutions, ecosystem services and urban challenges', '10.1016/j.landusepol.2020.104898', (267,)), ('Science of the Total Environment, The', 'Nature based solutions for contaminated land remediation and brownfield redevelopment in cities: A review', '10.1016/j.scitotenv.2019.01.347', (257,)), ('Urban Forestry and Urban Greening', 'Advancing urban green infrastructure in Europe: Outcomes and reflections from the GREEN SURGE project', '10.1016/j.ufug.2018.10.006', (229,)), ('Soil Use and Management', 'A review of green remediation strategies for heavy metal contaminated soil', '10.1111/sum.12717', (219,)), ('Science of the Total Environment, The', 'Using a system thinking approach to assess the contribution of nature based solutions to sustainable development goals', '10.1016/j.scitotenv.2020.139693', (164,)), ('Regional Environmental Change', 'Mainstreaming climate adaptation into urban planning: Overcoming barriers, seizing opportunities and evaluating the results in two Dutch case studies', '10.1007/s10113-012-0348-8', (158,)), ('Environmental Research', 'Nature-based solutions: Settling the issue of sustainable urbanization', '10.1016/j.envres.2018.12.063', (157,)), ('Journal of Cleaner Production', 'Environmental and climate policy integration: Targeted strategies for overcoming barriers to nature-based solutions and climate change adaptation', '10.1016/j.jclepro.2019.119154', (157,)), ('Climatic Change', 'Beyond participation: when citizen engagement leads to undesirable outcomes for nature-based solutions and climate change adaptation', '10.1007/s10584-019-02557-9', (151,)), ('Global Environmental Change', 'Outstanding challenges for urban conservation research and action', '10.1016/j.gloenvcha.2014.06.002', (147,)), ('Ecological Economics', 'Justice in nature-based solutions: Research and pathways', '10.1016/j.ecolecon.2020.106874', (147,)), ('Sustainable Cities and Society', 'Integrating green infrastructure, ecosystem services and nature-based solutions for urban sustainability: A comprehensive literature review', '10.1016/j.scs.2023.104843', (137,)), ('Science of the Total Environment, The', 'Nature-based solutions in the urban context: terminology, classification and scoring for urban challenges and ecosystem services', '10.1016/j.scitotenv.2021.146237', (136,)), ('Land Use Policy', 'Working on the boundaries—How do science use and interpret the nature-based solution concept?', '10.1016/j.landusepol.2019.104302', (135,)), ('Climate', 'The role of green infrastructures in urban planning for climate change adaptation', '10.3390/cli7100119', (135,))]
6-5	Landscape	442	2020.29	gi es green infrastructure ugi ecosystem services planning landscape ecological	[('Conservation Biology', "Delayed Sexual Maturity and Demographics of Blanding's Turtles (Emydoidea blandingii): Implications for Conservation and Management of Long‐Lived Organisms", '10.1046/j.1523-1739.1993.740826.x', (584,)), ('Landscape Ecology', 'Supplying urban ecosystem services through multifunctional green infrastructure in the United States', '10.1007/s10980-013-9912-y', (559,)), ('Ecosystem Services', 'A review of urban ecosystem services: Six key challenges for future research', '10.1016/j.ecoser.2015.05.001', (357,)), ('The Lancet', 'Cooling cities through urban green infrastructure: a health impact assessment of European cities', '10.1016/S0140-6736(22)02585-5', (313,)), ('Land Use Policy', 'Ecosystem services in urban plans: What is there, and what is still needed for better decisions', '10.1016/j.landusepol.2017.10.017', (269,)), ('Journal of Cleaner Production', 'Urban ecological infrastructure: an integrated network for ecosystem services and sustainable urban systems', '10.1016/j.jclepro.2016.02.079', (215,)), ('Planning Practice & Research', 'Green infrastructure planning in urban Sweden', '10.1080/02697450216356', (207,)), ('Landscape and Urban Planning', 'Integrating ecosystem services into spatial planning—A spatial decision support tool', '10.1016/j.landurbplan.2016.05.003', (206,)), ('Ecological Indicators', 'Indicators of Cultural Ecosystem Services for urban planning: A review', '10.1016/j.ecolind.2015.04.028', (204,)), ('Ecological Modelling', 'Regulating Ecosystem Services and Green Infrastructure: assessment of Urban Heat Island effect mitigation in the municipality of Rome, Italy', '10.1016/j.ecolmodel.2018.11.011', (183,)), ('Landscape and Urban Planning', 'A review of green infrastructure research in Europe: Challenges and opportunities', '10.1016/j.landurbplan.2020.103775', (177,)), ('Landscape and Urban Planning', 'Planning green infrastructure to mitigate urban surface water flooding risk – A methodology to identify priority areas applied in the city of Ghent', '10.1016/j.landurbplan.2019.103703', (177,)), ('Sustainable Cities and Society', 'Assessing the contribution of urban green spaces in green infrastructure strategy planning for urban ecosystem conditions and services', '10.1016/j.scs.2021.102772', (171,)), ('Land', 'Green infrastructure planning principles: An integrated literature review', '10.3390/land9120525', (156,)), ('Cities', 'The politics of multifunctional green infrastructure planning in New York City', '10.1016/j.cities.2020.102621', (149,)), ('Landscape and Urban Planning', 'Greenways: multiplying and diversifying in the 21st century', '10.1016/j.landurbplan.2004.09.036', (149,)), ('Landscape and Urban Planning', 'Ecosystem services in urban planning: Comparative paradigms and guidelines for high quality plans', '10.1016/j.landurbplan.2016.04.003', (148,)), ('Ecosystem Services', 'A review of studies assessing ecosystem services provided by urban green and blue infrastructure', '10.1016/j.ecoser.2021.101367', (145,)), ('Proceedings of the Institute of Civil Engineers: Bridge Engineering', 'Can green infrastructure promote urban sustainability?', '10.1680/ensu.2009.162.1.23', (138,)), ('Cities', 'Green Alley Programs: Planning for a sustainable urban infrastructure?', '10.1016/j.cities.2012.07.004', (137,))]
6-3	Landscape	466	2020.18	tree trees species carbon forest forests vegetation sequestration air pm	[('Environmental Pollution', 'Urban forests and pollution mitigation: Analyzing ecosystem services and disservices', '10.1016/j.envpol.2011.01.010', (916,)), ('Environmental Health: A Global Access Science Source', 'Health and climate related ecosystem services provided by street trees in the urban environment', '10.1186/s12940-016-0103-6', (464,)), ('Journal of Environmental Management', 'Assessing the ecosystem service of air pollutant removal by urban trees in Guangzhou (China)', '10.1016/j.jenvman.2007.03.035', (409,)), ('Ecological Indicators', 'Multiple ecosystem services and disservices of the urban forest establishing their connections with landscape structure and sociodemographics', '10.1016/j.ecolind.2014.02.007', (257,)), ('Remote Sensing of Environment', 'Mapping urban tree species using integrated airborne hyperspectral and LiDAR remote sensing data', '10.1016/j.rse.2017.08.010', (247,)), ('Urban Forestry and Urban Greening', 'Air quality affected by trees in real street canyons: The case of Marylebone neighbourhood in central London', '10.1016/j.ufug.2017.01.009', (226,)), ('Plants People Planet', 'The benefits of trees for livable and sustainable communities', '10.1002/ppp3.39', (218,)), ('Arboriculture and Urban Forestry', 'Street tree diversity in eastern North America and its potential for tree loss to exotic borers', 'NO DOI', (215,)), ('Urban Forestry and Urban Greening', 'Diversity and distribution of the urban tree population in ten major Nordic cities', '10.1016/j.ufug.2011.09.004', (186,)), ('Ecosystem Services', 'A systematic review of cultural ecosystem services and human wellbeing', '10.1016/j.ecoser.2020.101168', (178,)), ('Urban Forestry and Urban Greening', 'Diversification of the urban forest—Can we afford to exclude exotic tree species?', '10.1016/j.ufug.2016.06.011', (147,)), ('Urban Forestry and Urban Greening', 'Potential reduction in urban runoff by green spaces in Beijing: A scenario analysis', '10.1016/j.ufug.2015.02.014', (137,)), ('Arboriculture and Urban Forestry', 'Tree root ecology in the Urban environment and implications for a sustainable rhizosphere', 'NO DOI', (124,)), ('Landscape and Urban Planning', 'Citree: A database supporting tree selection for urban areas in temperate climate', '10.1016/j.landurbplan.2016.06.005', (122,)), ('Journal of Environmental Management', 'Optimising UK urban road verge contributions to biodiversity and ecosystem services with cost-effective management', '10.1016/j.jenvman.2016.12.062', (116,)), ('Ecosystem Services', 'Understanding spatial patterns in the production of multiple urban ecosystem services', '10.1016/j.ecoser.2015.08.007', (114,)), ('Sustainability', 'Assessing the ecosystem services of various types of urban green spaces based on i-Tree Eco', '10.3390/su12041630', (107,)), ('Urban Forestry and Urban Greening', 'Promoting sustainable carbon sequestration of plants in urban greenspace by planting design: A case study in parks of Beijing', '10.1016/j.ufug.2021.127291', (106,)), ('Frontiers in Ecology and the Environment', 'Urban climate and adaptation strategies', '10.1890/150103', (102,)), ('PLoS ONE', 'Live fast, die young: Accelerated growth, mortality, and turnover in street trees', '10.1371/journal.pone.0215846', (101,))]

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6-18	Landscape	78	2019.77	prices hedonic housing riparian price green wtp river spaces parks	[('Urban Forestry and Urban Greening', 'Urban Green infrastructures: How much did they affect property prices in Singapore?', '10.1016/j.ufug.2022.127475', (113,)), ('Landscape and Urban Planning', 'Environmental externalities of urban river pollution and restoration: A hedonic analysis in Guangzhou (China)', '10.1016/j.landurbplan.2016.06.010', (109,)), ('Land Use Policy', 'Policy change, amenity, and spatiotemporal dynamics of housing prices in Nanjing, China', '10.1016/j.landusepol.2018.03.045', (82,)), ('Land Use Policy', 'A hedonic urban land price index', '10.1016/j.landusepol.2018.11.032', (71,)), ('Journal of Housing and the Built Environment', 'Creating sustainable urban built environments: An application of hedonic house price models in Wuhan, China', '10.1007/s10901-014-9403-8', (49,)), ('Ecological Economics', 'Public preference for river restoration in the Danda Basin, Nepal: A choice experiment study', '10.1016/j.ecolecon.2020.106690', (48,)), ('Habitat International', 'Temporal and spatial effects of a ‘Shan Shui’ landscape on housing price: A case study of Chongqing, China', '10.1016/j.habitatint.2019.102068', (38,)), ('Ecology and Society', 'Capturing the value of green space in urban parks in a sustainable urban planning and design context: Pros and cons of hedonic pricing', '10.5751/ES-09365-220221', (36,)), ('AEJ - Alexandria Engineering Journal', 'Improving urban park usability in developing countries: Case study of Al-Shalalat Park in Alexandria', '10.1016/j.aej.2019.12.042', (34,)), ('Land', 'Quantifying Landscape and Social Amenities as Ecosystem Services in Rapidly Changing Peri-Urban Landscape', '10.3390/land12020477', (31,)), ('Sustainability', 'Urban green spaces and housing prices: An alternative perspective', '10.3390/su11133707', (30,)), ('Sustainability', 'Spatial-Temporal variation in the impacts of urban infrastructure on housing prices in Wuhan, China', '10.3390/su12031281', (24,)), ('Landscape and Ecological Engineering', 'Biodiversity and ecosystem services in urban areas for smart adaptation to climate change: "Do you Kyoto"?', '10.1007/s11355-010-0140-1', (24,)), ('Journal of Transport Geography', 'Revealing the determinants of the intermodal transfer ratio between metro and bus systems considering spatial variations', '10.1016/j.jtrangeo.2022.103415', (24,)), ('Landscape and Ecological Engineering', 'Relationships between urban open spaces and humans’ health benefits from an ecological perspective: a study in an urban campus', '10.1007/s11355-016-0295-5', (23,)), ('International Journal of Innovation and Sustainable Development', 'Riparian areas in urban settings: Two case studies from Greece', '10.1504/IJISD.2013.056944', (22,)), ('Environmental Research Letters', 'Urban waterfront rehabilitation: Can it contribute to environmental improvements in the developing world?', '10.1088/1748-9326/4/2/024003', (20,)), ('Journal of Cleaner Production', 'Who cares and how much? Narrative for advances in aquatic ecosystem services through non-market valuation with spatial dimensions using a discrete choice experiment', '10.1016/j.jclepro.2022.130603', (20,)), ('Advances in 21st Century Human Settlements', 'Urban Waterfront Revivals of the Future', '10.1007/978-981-10-4113-6_15', (18,)), ('Discover Sustainability', 'Quantifying the impacts of urbanization on urban green, evidences from Maga City, Lahore Pakistan', '10.1007/s43621-023-00169-z', (17,))]
6-15	Landscape	127	2019.31	biophilic design nature coastal geoai ocean biophilia urbanism rup urban	[('Sustainability', 'Biophilic cities are sustainable, resilient cities', '10.3390/su5083328', (239,)), ('Environmental Pollution', 'Urban planning with respect to environmental quality and human well-being', '10.1016/j.envpol.2015.07.038', (189,)), ('Urban Ecosystems', 'Design catalogue for eco-engineering of coastal artificial structures: a multifunctional approach for stakeholders and end-users', '10.1007/s11252-019-00924-z', (111,)), ('Ecology and Society', 'Achieving the promise of integration in social-ecological research: A review and prospectus', '10.5751/ES-10232-230338', (102,)), ('Annual Review of Marine Science', 'Emerging Solutions to Return Nature to the Urban Ocean', '10.1146/annurev-marine-032020-020015', (100,)), ('Landscape Ecology', 'Scientific and local ecological knowledge, shaping perceptions towards protected areas and related ecosystem services', '10.1007/s10980-020-01107-4', (99,)), ('Computational Urban Science', 'Points of Interest (POI): a commentary on the state of the art, challenges, and prospects for the future', '10.1007/s43762-022-00047-w', (86,)), ('Computers, Environment and Urban Systems', 'Sensing urban soundscapes from street view imagery', '10.1016/j.compenvurbsys.2022.101915', (81,)), ('Computers, Environment and Urban Systems', 'Places for play: Understanding human perception of playability in cities using street view images and deep learning', '10.1016/j.compenvurbsys.2021.101693', (81,)), ('Land', 'Urban river recovery inspired by nature-based solutions and biophilic design in Albufeira, Portugal', '10.3390/land7040141', (60,)), ('Remote Sensing', 'Mapping human settlements with higher accuracy and less volunteer efforts by combining crowdsourcing and deep learning', '10.3390/rs11151799', (51,)), ('Urban Forestry and Urban Greening', 'Assessing urban greenery by harvesting street view data: A review', '10.1016/j.ufug.2023.127917', (49,)), ('Sustainability', 'Tourist satisfaction, willingness to revisit and recommend, and mountain Kangyang tourism spots sustainability: A structural equation modelling approach', '10.3390/su131910620', (48,)), ('Landscape and Urban Planning', 'Interaction model application for urban planning', '10.1016/S0169-2046(02)00182-2', (45,)), ('Urban Aquaculture', 'Commercially feasible urban recirculating Aquaculture: Addressing the marine sector', 'NO DOI', (43,)), ('Blue Urbanism: Exploring Connections between Cities and Oceans', 'Blue urbanism: Exploring connections between cities and oceans', '10.5822/978-1-61091-564-9', (42,)), ('International Journal of Applied Earth Observation and Geoinformation', 'Mapping the landscape and roadmap of geospatial artificial intelligence (GeoAI) in quantitative human geography: An extensive systematic review', '10.1016/j.jag.2024.103734', (41,)), ('Urban Planning', 'Green infrastructure and biophilic urbanism as tools for integrating resource efficient and ecological cities', '10.17645/UP.V6I1.3633', (38,)), ('Regional Studies in Marine Science', 'Conservation challenges in human dominated seascapes: The harbour and coast of Ravenna', '10.1016/j.rsma.2015.11.003', (36,)), ('Sustainability', 'Emerging biophilic urbanism: The value of the human-nature relationship in the urban space', '10.3390/su12135487', (33,))]

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6-9	Landscape	300	2019.12	gentrification justice equity greening green environmental sustainability social ej political	[('City and Society', 'Wiped out by the "Greenwave": Environmental gentrification and the paradoxical politics of urban sustainability', '10.1111/j.1548-744X.2011.01063.x', (561,)), ('Urban Geography', 'Provincializing global urbanism: A manifesto', '10.1080/02723638.2013.807977', (338,)), ('Local Environment', 'Just green enough: Contesting environmental gentrification in Greenpoint, Brooklyn', '10.1080/13549839.2012.729569', (328,)), ('Urban Geography', 'Political ecologies of gentrification', '10.2747/0272-3638.30.7.694', (285,)), ('Journal of Planning Literature', 'From Toxic Sites to Parks as (Green) LULUs? New Challenges of Inequity, Privilege, Gentrification, and Exclusion for Urban Environmental Justice', '10.1177/0885412215610491', (251,)), ('Green Gentrification: Urban Sustainability and the Struggle for Environmental Justice', 'Green gentrification: Urban sustainability and the struggle for environmental justice', '10.4324/9781315687322', (250,)), ('Urban Geography', 'Sustainable for whom? Green urban development, environmental gentrification, and the Atlanta Beltline', '10.1080/02723638.2017.1360041', (240,)), ('Nature Communications', 'Green gentrification in European and North American cities', '10.1038/s41467-022-31572-1', (213,)), ('City', 'From landscapes of utopia to the margins of the green urban life: For whom is the new green city?', '10.1080/13604813.2018.1473126', (201,)), ('International Journal of Urban and Regional Research', 'Contradictions of the Climate-Friendly City: New Perspectives on Eco-Gentrification and Housing Justice', '10.1111/1468-2427.12740', (189,)), ('The Next American Revolution: Sustainable Activism for the Twenty-First Century', 'The next American revolution: Sustainable activism for the twenty-first century', 'NO DOI', (162,)), ('Ecological Economics', "The 'Environmentalism of the Poor' revisited: Territory and place in disconnected glocal struggles", '10.1016/j.ecolecon.2014.04.005', (158,)), ('International Journal of Urban and Regional Research', 'Grabbed Urban Landscapes: Socio-spatial Tensions in Green Infrastructure Planning in Medellín', '10.1111/1468-2427.12725', (156,)), ('Environment & Planning C: Government & Policy', 'From brown to green? Assessing social vulnerability to environmental gentrification in New York City', '10.1068/c08126', (151,)), ('Cities', 'Shaping neighborhoods and nature: Urban political ecologies of urban waterfront transformations in Portland, Oregon', '10.1016/j.cities.2006.12.003', (138,)), ('Annals of the American Association of Geographers', 'Green and gray: New ideologies of nature in urban sustainability policy', '10.1080/24694452.2017.1417819', (138,)), ('Local Environment', 'Sustainable development for some: Green urban development and affordability', '10.1080/13549830903089283', (134,)), ('International Journal of Urban and Regional Research', 'Healthy Food Stores, Greenlining and Food Gentrification: Contesting New Forms of Privilege, Displacement and Locally Unwanted Land Uses in Racially Mixed Neighborhoods', '10.1111/1468-2427.12299', (127,)), ('Urban Geography', 'Uneven development of the sustainable city: Shifting capital in Portland, Oregon', '10.1080/02723638.2015.1010791', (124,)), ('Local Environment', 'Urban sustainability and environmental justice: Evaluating the linkages in public planning/policy discourse', '10.1080/13549839.2010.487528', (122,))]
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6-16	Landscape	123	2018.90	bucharest romania romanian green megaprojects conflicts land ugs playgrounds sprawl	[('Ecological Indicators', "Is urban green space per capita a valuable target to achieve cities' sustainability goals? Romania as a case study", '10.1016/j.ecolind.2016.05.044', (179,)), ('Remote Sensing', 'Understanding forest health with Remote sensing-Part II-A review of approaches and data models', '10.3390/rs9020129', (144,)), ('Journal of Sustainable Tourism', 'Identifying tourists with smaller environmental footprints', '10.1080/09669581003668516', (143,)), ('Ecological Indicators', 'Methodological framework for urban sprawl control through sustainable planning of urban green infrastructure', '10.1016/j.ecolind.2017.10.054', (128,)), ('Urban Forestry and Urban Greening', 'The potential of school green areas to improve urban green connectivity and multifunctionality', '10.1016/j.ufug.2014.07.002', (99,)), ('Ocean and Coastal Management', 'Coastal erosion in central Chile: A new hazard?', '10.1016/j.ocecoaman.2017.07.011', (80,)), ('Land', 'Degradation of coastlines under the pressure of urbanization and tourism: Evidence on the change of land systems from Europe, Asia and Africa', '10.3390/LAND9080275', (79,)), ('Applied Geography', 'How successful is the resolution of land-use conflicts? A comparison of cases from Switzerland and Romania', '10.1016/j.apgeog.2013.12.008', (77,)), ('Land Use Policy', 'The DPSIR framework in support of green infrastructure planning: A case study in Southern Italy', '10.1016/j.landusepol.2016.10.051', (72,)), ('Landscape and Urban Planning', "Dog walkers' vs. other park visitors' perceptions: The importance of planning sustainable urban parks in Bucharest, Romania", '10.1016/j.landurbplan.2011.06.002', (71,)), ('Cities', 'The limits of growth: A case study of three mega-projects in Istanbul', '10.1016/j.cities.2016.09.013', (67,)), ("Earth's Future", 'Mapping 21st Century Global Coastal Land Reclamation', '10.1029/2022EF002927', (63,)), ('Ecological Indicators', 'A multi-sensor and multi-temporal remote sensing approach to detect land cover change dynamics in heterogeneous urban landscapes', '10.1016/j.ecolind.2018.12.033', (63,)), ('Landscape and Urban Planning', 'From “red” to green? A look into the evolution of green spaces in a post-socialist city', '10.1016/j.landurbplan.2018.07.015', (63,)), ('Environmental Pollution', 'Agricultural and green infrastructures: The role of non-urbanised areas for eco-sustainable planning in a metropolitan region', '10.1016/j.envpol.2010.11.017', (60,)), ('Ocean and Coastal Management', 'Assessment of cumulative human pressures on a coastal area: Integrating information for MPA planning and management', '10.1016/j.ocecoaman.2014.09.020', (55,)), ('Sustainable Cities and Society', 'Green areas management and bioengineering techniques for improving urban ecological sustainability', '10.1016/j.scs.2017.01.008', (54,)), ('Urban Forestry and Urban Greening', 'Disentangling the connections: A network analysis of approaches to urban green infrastructure', '10.1016/j.ufug.2019.04.013', (53,)), ('Environmental Research', 'Using local knowledge and sustainable transport to promote a greener city: The case of Bucharest, Romania', '10.1016/j.envres.2017.10.007', (53,)), ('Global Environmental Change', 'Cultural ecosystem services caught in a ‘coastal squeeze’ between sea level rise and urban expansion', '10.1016/j.gloenvcha.2020.102209', (47,))]

6-13	Landscape	150	2018.21	restorative soundscape campus sound visual restorativeness landscape spaces psychological perception	[('Journal of Social Issues', 'Preference for nature in urbanized societies: Stress, restoration, and the pursuit of sustainability', '10.1111/j.1540-4560.2007.00497.x', (569,)), ('Proceedings of the National Academy of Sciences of the United States of America', 'Disentangling the role of environmental and human pressures on biological invasions across Europe', '10.1073/pnas.1002314107', (508,)), ('Journal of Environmental Psychology', 'Architectural variation, building height, and the restorative quality of urban residential streetscapes', '10.1016/j.jenvp.2012.09.003', (219,)), ('Urban Forestry and Urban Greening', 'Effects of integration between visual stimuli and auditory stimuli on restorative potential and aesthetic preference in urban green spaces', '10.1016/j.ufug.2020.126702', (175,)), ('Urban Forestry and Urban Greening', 'Effects of urban street vegetation on judgments of restoration likelihood', '10.1016/j.ufug.2015.02.001', (151,)), ('The Forest and the City: The Cultural Landscape of Urban Woodland', 'The forest and the city: The cultural landscape of urban woodland', '10.1007/978-1-4020-8371-6', (139,)), ('Frontiers of Architectural Research', 'Healthy campus by open space design: Approaches and guidelines', '10.1016/j.foar.2014.06.006', (131,)), ('Journal of Forestry Research', 'Effects of urban street trees on human thermal comfort and physiological indices: a case study in Changchun city, China', '10.1007/s11676-021-01361-5', (88,)), ('Building and Environment', 'Effect of the appropriateness of sound environment on urban soundscape assessment', '10.1016/j.buildenv.2020.106975', (82,)), ('Frontiers in Psychology', "A different way to stay in touch with 'Urban Nature': The perceived restorative qualities of botanical gardens", '10.3389/fpsyg.2017.00914', (81,)), ('Energy Procedia', 'On the validity of immersive virtual reality as tool for multisensory evaluation of urban spaces', '10.1016/j.egypro.2015.11.703', (77,)), ('Landscape and Urban Planning', 'Campus score: Measuring university campus qualities', '10.1016/j.landurbplan.2016.10.007', (77,)), ('Current Opinion in Environmental Sustainability', 'Urban environments and human health: current trends and future directions', '10.1016/j.cosust.2017.06.001', (74,)), ('Journal of Social Issues', "Inhabitants' and experts' assessments of environmental quality for urban sustainability", '10.1111/j.1540-4560.2007.00496.x', (63,)), ('HBRC Journal', 'The phonic identity of the city urban soundscape for sustainable spaces', '10.1016/j.hbrcj.2014.12.005', (62,)), ('Landscape and Urban Planning', 'Potential restorative effects of urban soundscapes: Personality traits, temperament, and perceptions of VR urban environments', '10.1016/j.landurbplan.2021.104188', (58,)), ('Sustainability', 'Assessing the effectiveness of precision agriculture management systems in mediterranean small farms', '10.3390/su12093765', (55,)), ('Ecological Economics', 'The role of natural resource amenities in attracting retirees: Implications for economic growth policy', '10.1016/j.ecolecon.2008.02.022', (53,)), ('Ecology and Society', 'Monkey management: Using spatial ecology to understand the extent and severity of human-baboon conflict in the Cape Peninsula, South Africa', '10.5751/ES-04882-170313', (53,)), ('Frontiers in Zoology', 'Landscape requirements of a primate population in a human-dominated environment', '10.1186/1742-9994-9-1', (52,))]
6-8	Landscape	350	2018.08	spaces green park parks open space landscape public urban city	[('Landscape and Urban Planning', 'The role of urban parks for the sustainable city', '10.1016/j.landurbplan.2003.08.003', (1846,)), ('Health Promotion International', "Healthy nature healthy people: 'contact with nature' as an upstream health promotion intervention for populations", '10.1093/heapro/dai032', (916,)), ('Landscape and Urban Planning', 'Urban open space in the 21st century', '10.1016/S0169-2046(02)00059-2', (520,)), ('International Journal of Environmental Research and Public Health', 'Urban green space: creating a triple win for environmental sustainability, health, and health equity through behavior change', '10.3390/ijerph16224403', (158,)), ('Local Environment', 'Green space, soundscape and urban sustainability: An interdisciplinary, empirical study', '10.1080/13549830802522061', (133,)), ('Ecology and Society', "Urban containment policies and the protection of natural areas: The case of Seoul's greenbelt", '10.5751/ES-01504-110103', (125,)), ('Sustainability', 'Urban densification and recreational quality of public Urban green spaces-A viennese case study', '10.3390/su4040703', (83,)), ('Sustainability', 'The impact of green space changes on air pollution and microclimates: A case study of the taipei metropolitan area', '10.3390/su6128827', (82,)), ('Landscape and Urban Planning', 'Safety evaluation methodology of urban public parks by multi-criteria decision making', '10.1016/j.landurbplan.2019.05.014', (77,)), ('PLoS Neglected Tropical Diseases', 'A greener vision for vector control: The example of the singapore dengue control programme', '10.1371/journal.pntd.0008428', (70,)), ('Urban Forestry and Urban Greening', "A review of the concept 'management' in relation to urban landscapes and green spaces: Toward a holistic understanding", '10.1016/j.ufug.2012.01.004', (69,)), ('Landscape and Urban Planning', 'Planning for an extensive open space system: linking landscape structure and function', '10.1016/0169-2046(91)90037-M', (68,)), ('Sustainability', 'Patterns of urban park use and their relationship to factors of quality: A case study of tehran, Iran', '10.3390/su12041560', (66,)), ('Landscape and Ecological Engineering', 'Landscape ecology and urban biodiversity in tropical Indonesian cities', '10.1007/s11355-010-0145-9', (63,)), ('WSEAS Transactions on Environment and Development', 'Urban parks and sustainable city planning - The case of Portimão, Portugal', 'NO DOI', (62,)), ('Journal of the American Planning Association', 'Sustainability and urban greenways: Indicators in indianapolis', '10.1080/01944360308976304', (62,)), ('Sustainability', 'Sustainable cities and the contribution of historical urban green spaces: A case study of historical Persian gardens', '10.3390/su71013290', (62,)), ('Energy Research and Social Science', 'Human Scale Energy Services: Untangling a ‘golden thread’', '10.1016/j.erss.2018.01.008', (60,)), ('The Political Economy of Low Carbon Transformation: Breaking the habits of capitalism', 'The political economy of low carbon transformation: Breaking the habits of capitalism', '10.4324/9781315745787', (56,)), ('Landscape Research', 'The governance of landscape management: new approaches to urban open space development', '10.1080/01426397.2018.1536199', (53,))]
6-7	Landscape	380	2018.07	species tree trees forest biodiversity vacant diversity plants bird spontaneous	[('Conservation Biology', 'The city as a refuge for insect pollinators', '10.1111/cobi.12840', (480,)), ('Journal of Ecology', 'A conceptual framework for predicting the effects of urban environments on floras', '10.1111/j.1365-2745.2008.01460.x', (365,)), ('Landscape and Urban Planning', 'What will the neighbors think? Cultural norms and ecological design', '10.1016/j.landurbplan.2009.05.010', (313,)), ('Conservation Biology', 'Functional homogenization effect of urbanization on bird communities', '10.1111/j.1523-1739.2007.00671.x', (287,)), ('Urban Ecology: An International Perspective on the Interaction Between Humans and Nature', 'Urban ecology: An international perspective on the interaction between humans and nature', '10.1007/978-0-387-73412-5', (244,)), ('Ecological Economics', 'Why garden for wildlife? Social and ecological drivers, Motivations and barriers for biodiversity management in residential landscapes', '10.1016/j.ecolecon.2012.07.016', (236,)), ('Landscape and Urban Planning', 'Biodiversity in Berlin and its potential for nature conservation', '10.1016/S0169-2046(02)00145-7', (212,)), ('Ambio', 'Beyond ‘trees are good’: Disservices, management costs, and tradeoffs in urban forestry', '10.1007/s13280-020-01396-8', (202,)), ('Annals of the American Association of Geographers', 'The Legacy Effect: Understanding How Segregation and Environmental Injustice Unfold over Time in Baltimore', '10.1080/24694452.2017.1365585', (181,)), ('Environmental Management', 'An ecology of prestige in New York City: Examining the relationships among population density, socio-economic status, group identity, and residential canopy cover', '10.1007/s00267-014-0310-2', (169,)), ('Landscape and Urban Planning', 'A social-ecological assessment of vacant lots in New York City', '10.1016/j.landurbplan.2013.05.003', (160,)), ('Advances in Ecological Research', 'Protecting an Ecosystem Service: Approaches to Understanding and Mitigating Threats to Wild Insect Pollinators', '10.1016/bs.aecr.2015.10.007', (156,)), ('The Canadian Entomologist', 'Bee diversity and abundance in an urban setting', '10.4039/n04-010', (153,)), ('Urban Forestry and Urban Greening', "Tending their urban forest: Residents' motivations for tree planting and removal", '10.1016/j.ufug.2016.03.008', (147,)), ('Proceedings of the National Academy of Sciences of the United States of America', 'Nonnative plants reduce population growth of an insectivorous bird', '10.1073/pnas.1809259115', (146,)), ('Landscape Ecology', 'Amur tigers and leopards returning to China: direct evidence and a landscape conservation plan', '10.1007/s10980-015-0278-1', (142,)), ('Landscape and Urban Planning', 'An analysis of urban forest management plans in Canada: Implications for urban forest management', '10.1016/j.landurbplan.2013.04.007', (141,)), ('Environmental Entomology', 'The value of urban vacant land to support arthropod biodiversity and ecosystem services', '10.1603/EN12275', (137,)), ('Frontiers in Ecology and the Environment', 'Exploitation of northern peatlands and biodiversity maintenance: A conflict between economy and ecology', '10.1890/1540-9295(2003)001[0525:EONPAB]2.0.CO;2', (137,)), ('Stochastic Environmental Research and Risk Assessment', 'Stream water quality prediction using boosted regression tree and random forest models', '10.1007/s00477-021-02152-4', (127,))]
6-2	Landscape	518	2018.03	green ugs space spaces greenspace land urban landscape greening compact	[('Urban Forestry and Urban Greening', 'Challenges and strategies for urban green-space planning in cities undergoing densification: A review', '10.1016/j.ufug.2015.07.009', (1149,)), ("Europe's environment: the Dobris assessment", "Europe's environment: the Dobris assessment", 'NO DOI', (601,)), ('Landscape and Urban Planning', 'Modeling the environmental impacts of urban land use and land cover change - A study in Merseyside, UK', '10.1016/j.landurbplan.2004.03.009', (455,)), ('Biodiversity and Conservation', 'Using the ecosystem services approach for better planning and conservation of urban green spaces: A Finland case study', '10.1007/s10531-010-9888-8', (440,)), ('Landscape and Urban Planning', 'Assessing the environmental performance of land cover types for urban planning', '10.1016/S0169-2046(00)00109-2', (404,)), ('Landscape and Urban Planning', 'Spatial-temporal dynamics of urban green space in response to rapid urbanization and greening policies', '10.1016/j.landurbplan.2010.12.013', (397,)), ('Landscape and Urban Planning', 'Comprehensive concept planning of urban greening based on ecological principles: A case study in Beijing, China', '10.1016/j.landurbplan.2004.04.002', (365,)), ('Urban Forestry and Urban Greening', 'Towards an integrated understanding of green space in the European built environment', '10.1016/j.ufug.2009.02.001', (351,)), ('Landscape and Urban Planning', 'Recreation-amenity use and contingent valuation of urban greenspaces in Guangzhou, China', '10.1016/j.landurbplan.2004.08.008', (342,)), ('Cities', 'Ecosystem services and valuation of urban forests in China', '10.1016/j.cities.2009.03.003', (324,)), ('Built Environment', 'Nature, role and value of green space in towns and cities: An overview', '10.2148/benv.29.2.94.54467', (320,)), ('Cities', 'Green-space preservation and allocation for sustainable greening of compact cities', '10.1016/j.cities.2004.04.004', (317,)), ('Landscape and Urban Planning', 'Comprehensive greenspace planning based on landscape ecology principles in compact Nanjing city, China', '10.1016/S0169-2046(02)00244-X', (296,)), ('Ecological Indicators', 'How smart growth and green infrastructure can mutually support each other — A conceptual framework for compact and green cities', '10.1016/j.ecolind.2017.07.001', (260,)), ('Landscape and Ecological Engineering', 'Urbanization and green space dynamics in Greater Dhaka, Bangladesh', '10.1007/s11355-010-0147-7', (233,)), ('Landscape and Urban Planning', 'Green plot ratio: An ecological measure for architecture and urban planning', '10.1016/S0169-2046(02)00191-3', (221,)), ('International Journal of Environmental Research and Public Health', 'Modern compact cities: How much greenery do we need?', '10.3390/ijerph15102180', (212,)), ('Urban Ecosystems', 'Sustainable urban greening strategies for compact cities in developing and developed economies', '10.1007/s11252-012-0268-x', (209,)), ('Science of the Total Environment, The', 'Temporal trend of green space coverage in China and its relationship with urbanization over the last two decades', '10.1016/j.scitotenv.2012.10.014', (207,)), ('Land Use Policy', 'External effects of neighbourhood parks and landscape elements on high-rise residential value', '10.1016/j.landusepol.2009.08.027', (202,))]

6-4	Landscape	448	2017.88	ecology landscape ecological biodiversity urban species design ecosystem landscapes cities	[('Landscape and Urban Planning', 'Urban ecology and sustainability: The state-of-the-science and future directions', '10.1016/j.landurbplan.2014.01.018', (805,)), ('Environmental Health Perspectives', 'Unhealthy landscapes: Policy recommendations on land use change and infectious disease emergence', '10.1289/ehp.6877', (779,)), ('Genetics Research International', 'Importance of genetic diversity assessment in crop plants and its recent advances: An overview of its analytical perspectives', '10.1155/2015/431487', (733,)), ('Science', 'Evolution of life in urban environments', '10.1126/science.aam8327', (727,)), ('Landscape Ecology', 'Urban landscape sustainability and resilience: The promise and challenges of integrating ecology with urban planning and design', '10.1007/s10980-012-9799-z', (524,)), ('BioScience', 'Advancing Urban Ecology toward a Science of Cities', '10.1093/biosci/biw002', (510,)), ('Landscape and Urban Planning', 'The concept of ecosystem services in adaptive urban planning and design: A framework for supporting innovation', '10.1016/j.landurbplan.2014.01.020', (345,)), ('Proceedings of the National Academy of Sciences of the United States of America', 'Global urban signatures of phenotypic change in animal and plant populations', '10.1073/pnas.1606034114', (333,)), ('Conservation Biology', 'Human–wildlife coexistence in a changing world', '10.1111/cobi.13513', (331,)), ('Urban Regions: Ecology and Planning Beyond the City', 'Urban regions: Ecology and planning beyond the city', '10.1017/CBO9780511754982', (289,)), ('Landscape Ecology', 'Urban sustainability: An inevitable goal of landscape research', '10.1007/s10980-009-9444-7', (256,)), ('Ecosystem Health and Sustainability', 'Evolution and future of urban ecological science: ecology in, of, and for the city', '10.1002/ehs2.1229', (232,)), ('Ecology and Society', 'Urban landscapes and sustainable cities', '10.5751/ES-01639-110134', (227,)), ('Science', 'The ecological future of cities', '10.1126/science.aaf3630', (223,)), ('Landscape and Urban Planning', 'Advancing urban sustainability theory and action: Challenges and opportunities', '10.1016/j.landurbplan.2014.01.022', (210,)), ('Sustainability', 'An ecology for cities: A transformational nexus of design and ecology to advance climate change resilience and urban sustainability', '10.3390/su7043774', (210,)), ('BioScience', 'Planning for the future of urban biodiversity: A global review of city-scale initiatives', '10.1093/biosci/bix012', (189,)), ('npj Urban Sustainability', 'Radical changes are needed for transformations to a good Anthropocene', '10.1038/s42949-021-00017-x', (184,)), ('Ecological Indicators', 'Advancing understanding of the complex nature of urban systems', '10.1016/j.ecolind.2016.03.054', (174,)), ('Frontiers in Ecology and the Environment', 'Creating multifunctional landscapes: How can the field of ecology inform the design of the landscape?', '10.1890/070178', (174,))]
6-17	Landscape	102	2016.96	es ecosystem ues ecological services rims landscape land rbc urban	[('Urbanization, Biodiversity and Ecosystem Services: Challenges and Opportunities: A Global Assessment', 'A global outlook on urbanization', '10.1007/978-94-007-7088-1_1', (244,)), ('Journal of Environmental Management', 'Linking GIS-based models to value ecosystem services in an Alpine region', '10.1016/j.jenvman.2007.05.019', (168,)), ('Journal of Environmental Management', 'Landscape ecological assessment: A tool for integrating biodiversity issues in strategic environmental assessment and planning', '10.1016/j.jenvman.2006.01.005', (153,)), ('Ecological Economics', 'Reaching for a sustainable, Resilient urban future using the lens of ecosystem services', '10.1016/j.ecolecon.2012.06.013', (151,)), ('Landscape and Urban Planning', 'Understanding ecosystem services trade-offs with interactive procedural modeling for sustainable urban planning', '10.1016/j.landurbplan.2012.10.011', (143,)), ('Ecological Economics', 'Ecosystem services as technology of globalization: On articulating values in urban nature', '10.1016/j.ecolecon.2012.09.012', (112,)), ('Human Ecology', 'Green space functionality along an Urban gradient in Karachi, Pakistan: A socio-ecological study', '10.1007/s10745-010-9303-9', (62,)), ('Urban Ecosystems', 'Urban sustainability, urban ecology and the Society for Urban Ecology (SURE)', '10.1007/s11252-011-0186-3', (60,)), ('Urban Ecosystems', 'Differential community and the perception of urban green spaces and their contents in the megacity of Karachi, Pakistan', '10.1007/s11252-012-0285-9', (59,)), ('Sustainability', 'Assessment of soil quality of croplands in the Corn Belt of Northeast China', '10.3390/su10010248', (56,)), ('Urban Ecosystems', 'Urban ecosystems and sustainable urban development-analysing and assessing interacting systems in the Stockholm region', '10.1007/s11252-012-0270-3', (50,)), ('Ecological Indicators', 'Exploring local consequences of two land-use alternatives for the supply of urban ecosystem services in Stockholm year 2050', '10.1016/j.ecolind.2016.02.062', (47,)), ('Urban Ecosystems', 'Applied urban ecology for sustainable urban environment', '10.1007/s11252-013-0337-9', (46,)), ('Environmental Education Research', 'Saving squawk? Animal and human entanglement at the edge of the lagoon', '10.1080/13504622.2015.1101752', (46,)), ('Ecological Indicators', 'The Theorized Urban Gradient (TUG) method - A conceptual framework for socio-ecological sampling in complex urban agglomerations', '10.1016/j.ecolind.2013.07.010', (40,)), ('Urbanization, Biodiversity and Ecosystem Services: Challenges and Opportunities: A Global Assessment', 'History of urbanization and the missing ecology', '10.1007/978-94-007-7088-1_2', (37,)), ('IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing', 'Mapping and Monitoring Urban Ecosystem Services Using Multitemporal High-Resolution Satellite Data', '10.1109/JSTARS.2016.2586582', (36,)), ('Energy Policy', 'Integrating ecosystem services in the assessment of urban energy trajectories – A study of the Stockholm Region', '10.1016/j.enpol.2016.09.031', (35,)), ('International Journal of Climate Change: Impacts and Responses', 'Climate action co-benefits and integrated community planning: Uncovering the synergies and trade-offs', '10.18848/1835-7156/cgp/v10i04/1-23', (34,)), ('Journal of Environmental Assessment Policy and Management', 'Ecosystem services criteria for sustainable development in urban regions', '10.1142/S1464333212500081', (31,))]
7-5	Social	286	2020.92	vitality vibrancy street spatial density urban space data spaces leisure	[('Journal of Urban Design', 'Making a city: urbanity, vitality and urban design', '10.1080/13574809808724418', (886,)), ('Landscape and Urban Planning', 'Analyzing spatial relationships between urban land use intensity and urban vitality at street block level: A case study of five Chinese megacities', '10.1016/j.landurbplan.2019.103669', (349,)), ('Cities', 'How do population inflow and social infrastructure affect urban vitality? Evidence from 35 large- and medium-sized cities in China', '10.1016/j.cities.2019.102454', (174,)), ('Regional Science and Urban Economics', 'Towards a system of open cities in China: Home prices, FDI flows and air quality in 35 major cities', '10.1016/j.regsciurbeco.2009.10.003', (168,)), ('Cities', 'The six dimensions of built environment on urban vitality: Fusion evidence from multi-source data', '10.1016/j.cities.2021.103482', (167,)), ('Environment and Planning B: Urban Analytics and City Science', 'Evaluating and characterizing urban vibrancy using spatial big data: Shanghai as a case study', '10.1177/2399808319828730', (138,)), ('Urban Design International', 'The urban density assemblage: Modelling multiple measures', '10.1057/udi.2013.13', (106,)), ('Sustainable Cities and Society', 'Exploring the association between street built environment and street vitality using deep learning methods', '10.1016/j.scs.2021.103656', (96,)), ('ISPRS International Journal of Geo-Information', 'Multidimensional urban vitality on streets: Spatial patterns and influence factor identification using multisource urban data', '10.3390/ijgi11010002', (91,)), ('International Journal of Applied Earth Observation and Geoinformation', 'Mapping human perception of urban landscape from street-view images: A deep-learning approach', '10.1016/j.jag.2022.102886', (87,)), ('Multimedia Tools and Applications', 'Assessment of lively street network based on geographic information system and space syntax', '10.1007/s11042-015-3095-2', (84,)), ('ISPRS International Journal of Geo-Information', 'A new Urban vitality analysis and evaluation framework based on human activity modeling using multi-source big data', '10.3390/ijgi9110617', (78,)), ('Tunnelling and Underground Space Technology incorporating Trenchless', 'Quantitative assessment method on urban vitality of metro-led underground space based on multi-source data: A case study of Shanghai Inner Ring area', '10.1016/j.tust.2021.104108', (77,)), ('Geo-Spatial Information Science', 'Big spatial data for urban and environmental sustainability', '10.1080/10095020.2020.1754138', (64,)), ('International Journal of Geographical Information Science', 'The Traj2Vec model to quantify residents' spatial trajectories and estimate the proportions of urban land-use types', '10.1080/13658816.2020.1726923', (63,)), ('Sustainable Cities and Society', 'Portraying urban landscape: A quantitative analysis system applied in fifteen metropolises in China', '10.1016/j.scs.2018.12.024', (63,)), ('Sustainability', 'Urban vitality area identification and pattern analysis from the perspective of time and space fusion', '10.3390/su11154032', (61,)), ('Journal of Housing and the Built Environment', 'Analysis of the effects of urban form on neighborhood vitality: five cases in Valdivia, Southern Chile', '10.1007/s10901-019-09694-8', (60,)), ('Land Use Policy', 'Neighborhood decline and mixed land uses: Mitigating housing abandonment in shrinking cities', '10.1016/j.landusepol.2019.02.033', (59,)), ('High-Rise Living in Asian Cities', 'High-rise living in Asian cities', '10.1007/978-90-481-9738-5', (59,))]
7-24	Social	52	2020.19	fm ufm club facility energy norway facilities renovation smart cbfm	[('Facilities', 'Shaping tomorrow's facilities management', '10.1108/F-10-2018-0126', (70,)), ('Facilities', 'An interactive tool for citizens' involvement in the sustainable regeneration', '10.1108/F-09-2019-0099', (57,)), ('Facilities', 'Urban facility management', '10.1108/F-06-2020-0078', (54,)), ('Journal of the American Planning Association', 'Club goods and local government: Questions for planners', '10.1080/01944363.2011.567898', (54,)), ('Facilities', 'Exploring urban facilities management approaches to increase connectivity in smart cities', '10.1108/F-08-2019-0095', (35,)), ('Construction Management and Economics', 'Sustainable building renovation in residential buildings: barriers and potential motivations in Norwegian culture', '10.1080/01446193.2022.2027485', (31,)), ('Facilities', 'Placemaking as an approach of sustainable urban facilities management', '10.1108/F-04-2020-0055', (21,)), ('Facilities', 'Social enterprise applications in an urban facilities management setting', '10.1108/02632771311307106', (21,)), ('Applied Sciences (Switzerland)', 'Urban heritage facility management: A scoping review', '10.3390/app11209443', (20,)), ('Energies', 'The spirit of time—the art of self-renovation to improve indoor environment in cultural heritage buildings', '10.3390/en14134056', (19,)), ('Facilities', 'Interactions between human behaviour and the built environment in terms of facility management', '10.1108/F-03-2017-0040', (17,)), ('Energy Procedia', 'Energy Resilience of Historical Urban Districts: A State of Art Review Towards a New Approach', '10.1016/j.egypro.2017.03.204', (15,)), ('IOP Conference Series: Earth and Environmental Science', 'Defining a niche for Facilities Management in Smart Cities', '10.1088/1755-1315/352/1/012035', (15,)), ('Facilities', "Norwegian stakeholder's attitudes towards EU taxonomy", '10.1108/F-03-2022-0051', (13,)), ('Technics Technologies Education Management', 'Creative cultural tourism as a tool in regional development', 'NO DOI', (12,)), ('2021 29th Mediterranean Conference on Control and Automation, MED 2021', 'Application of assistive technologies in smart cities', '10.1109/MED51440.2021.9480281', (10,)), ('Designing Sustainable Cities in the Developing World', 'Designing sustainable cities', '10.4324/9781315576763-10', (9,)), ('Proceedings of the Institution of Civil Engineers: Urban Design and Planning', 'Briefing: Re-Engineering the City 2020-2050 - Urban Foresight and Transition Management', '10.1680/udap.11.00032', (9,)), ('Urban Forum', 'A Management Concept for Driving Sustainability in Marginalised Communities in South Africa', '10.1007/s12132-017-9329-9', (8,)), ('Procedia Engineering', 'Creating an Ecological Historic District: Rethinking a Chinese Challenge through the Case of Oakland District, Pittsburgh', '10.1016/j.proeng.2016.04.198', (7,))]

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7-19	Social	89	2019.70	heritage historic cultural cis architecture sister vulnerability mives architectural markets	[('Land Use Policy', 'MIVES multi-criteria approach for the evaluation, prioritization, and selection of public investment projects. A case study in the city of Barcelona', '10.1016/j.landusepol.2017.02.014', (93,)), ('Journal of Cultural Heritage', 'Building typologies identification to support risk mitigation at the urban scale - Case study of the old city centre of Seixal, Portugal', '10.1016/j.culher.2012.11.001', (83,)), ('American Journal of Economics and Sociology', 'International sister-cities: Bridging the global-local divide', '10.1111/1536-7150.00066', (82,)), ('Sustainable Cities and Society', 'A holistic and multi-stakeholder methodology for vulnerability assessment of cities to flooding and extreme precipitation events', '10.1016/j.scs.2020.102437', (63,)), ('International Journal of Conservation Science', 'Cultural heritage and territory. Architectural tools for a sustainable conservation of cultural landscape', 'NO DOI', (60,)), ('Landslides', 'The root causes of landslide vulnerability in Bangladesh', '10.1007/s10346-020-01606-0', (60,)), ('Environmental Science and Pollution Research', 'Rethinking the campus transportation network in the scope of ecological design principles: case study of Izmir Katip Çelebi University Çiğli Campus', '10.1007/s11356-021-14299-2', (58,)), ('International Journal of Design and Nature and Ecodynamics', 'Role of Social Inclusion in Sustainable Urban Developments: An Analyse by PRISMA Technique', '10.18280/ijdne.170615', (55,)), ('Frontiers of Architectural Research', 'Toward sustainable development: Lessons from vernacular settlements of Sri Lanka', '10.1016/j.foar.2018.04.002', (53,)), ('International Journal of Disaster Risk Reduction', 'Do we know how urban heritage is being endangered by climate change? A systematic and critical review', '10.1016/j.ijdrr.2021.102551', (49,)), ('Sustainability', 'The relationship between intangible cultural heritage and urban resilience: a systematic literature review', '10.3390/su132212921', (34,)), ('Current Issues in Tourism', 'Urban food markets and their sustainability: the compatibility of traditional and tourist uses', '10.1080/13683500.2017.1401983', (33,)), ('IOP Conference Series: Materials Science and Engineering', 'Vulnerability assessment of cultural heritage sites towards flooding events', '10.1088/1757-899X/364/1/012028', (28,)), ('Journal of Planning History', 'The Roots of the New Urbanism: John Nolen’s Garden City Ethic', '10.1177/153132001002001', (25,)), ('Sustainability', 'Place-based education in the architectural design studio: Agrarian landscape as a resource for sustainable urban lifestyle', '10.3390/su7079711', (21,)), ('Energy Procedia', 'The soundscapes of Antwerp: A study on the acoustic genius loci', '10.1016/j.egypro.2015.11.109', (20,)), ('International Journal of Cultural Policy', 'Street art as a sustainable tool in mature tourist destinations: a case study of Barcelona', '10.1080/10286632.2020.1792890', (20,)), ('Entrepreneurship and Sustainability Issues', 'Towards sustainable historic cities: Adaptation to climate change risks', '10.9770/jesi.2017.4.3S(7)', (20,)), ('Sustainability', 'Community cultural resources as sustainable development enablers: A case study on Bukjeong Village in Korea compared with Naoshima Island in Japan', '10.3390/su11051401', (20,)), ('Lecture Notes in Geoinformation and Cartography', 'Enhancing 3D city models with heterogeneous spatial information: Towards 3D land information systems', '10.1007/978-3-642-00318-9_6', (18,))]
7-16	Social	115	2019.60	spaces public placemaking design streets space cohousing parks checklist place	[('How to Study Public Life', 'How to study public life', '10.5822/978-1-61091-525-0', (623,)), ('International Planning Studies', 'Sun, surf and sustainable housing - Cohousing, the Californian experience', '10.1080/13563470500258824', (51,)), ('Growing Compact: Urban Form, Density and Sustainability', 'Growing compact: Urban form, density and sustainability', '10.4324/9781315563831', (42,)), ('Frontiers of Architectural Research', 'Quality of public space and sustainable development goals: analysis of nine urban projects in Spanish cities', '10.1016/j.foar.2023.01.002', (27,)), ('Urban Policy and Research', 'Understanding property rights in the contemporary urban commons', '10.1080/08111146.2014.901909', (25,)), ('Journal of Green Building', 'Towards a fourth ecology: Social and environmental sustainability with architecture and urban design', '10.3992/jgb.5.4.176', (23,)), ('Journal of Urban and Environmental Engineering', 'Urban planning & land management challenges in emerging towns of Ethiopia: The case of Arba Minch', '10.4090/juee.2013.v7n2.340348', (21,)), ('Sustainable Cities and Society', 'Place and memory indicator: Methodology for the formulation of a qualitative indicator, named place and memory, with the intent of contributing to previous works of intervention and restoration of heritage spaces and buildings, in the aspect of sustainability', '10.1016/j.scs.2019.101985', (20,)), ('Sustainable Cities and Society', 'Visually meaningful sustainability in national monuments as an international heritage', '10.1016/j.scs.2020.102207', (19,)), ('Energy Reports', 'Environmental and social sustainability automated evaluation of plazas based on 3D visibility measurements', '10.1016/j.egyr.2022.04.064', (19,)), ('New South Wales public health bulletin', 'Checklist for healthy and sustainable communities.', '10.1071/nb07066', (18,)), ('Sustainable Cities and Society', 'Conceptual and theoretical model of integrity between buildings and city', '10.1016/j.scs.2020.102205', (18,)), ('FormAkademisk', 'COLridor: Co-design and co-living urban adaptation', '10.7577/formakademisk.2647', (18,)), ('Vitruvio', 'Adaptive reuse process of the historic urban landscape post-Covid-19. The potential of the inner areas for a “new normal”.', '10.4995/vitruvio-ijats.2020.14521', (17,)), ('Cogent Social Sciences', 'Cultural Heritage and Sustainable Urban Development: the Case of Port Said city in Egypt', '10.1080/23311886.2022.2088460', (17,)), ('Systems', 'AI-Based Environmental Color System in Achieving Sustainable Urban Development', '10.3390/systems11030135', (16,)), ('AEJ - Alexandria Engineering Journal', 'Sustainable urbanism and cultural tourism, the case of the Sphinx Avenue, Luxor', '10.1016/j.aej.2023.03.041', (15,)), ('Procedia Engineering', "How Can Spatial Design Promote Inclusivity, Gender Equality and Overall Sustainability in Costa Rica's Urban Mobility System?", '10.1016/j.proeng.2017.07.147', (14,)), ('IOP Conference Series: Earth and Environmental Science', 'The Hidden Structure of Organic Informal-like Settlements in Jogjakarta City: An Investigation of Socio-Spatial Relationship in an Urban Kampung', '10.1088/1755-1315/158/1/012003', (14,)), ('AEJ - Alexandria Engineering Journal', 'Assessing livability of residential streets – Case study: El-Attarin, Alexandria, Egypt', '10.1016/j.aej.2019.06.005', (13,))]
7-1	Social	744	2019.39	heritage historic cultural reuse conservation adaptive historical buildings tourism regeneration	[('Landscape and Urban Planning', 'Built cultural heritage and sustainable urban development', '10.1016/j.landurbplan.2007.05.008', (449,)), ('Renewable and Sustainable Energy Reviews', 'Energy efficiency and thermal comfort in historic buildings: A review', '10.1016/j.rser.2016.03.018', (378,)), ('Habitat International', 'Implementation challenges to the adaptive reuse of heritage buildings: Towards the goals of sustainable, low carbon cities', '10.1016/j.habitatint.2011.11.001', (330,)), ('Structural Survey', 'Adaptive reuse of heritage buildings', '10.1108/02630801111182439', (270,)), ('Journal of Planning Literature', 'Planning for urban heritage places: Reconciling conservation, tourism, and sustainable development', '10.1177/0885412203017004001', (256,)), ('Cities', 'Measuring links between cultural heritage management and sustainable urban development: An overview of global monitoring tools', '10.1016/j.cities.2016.09.005', (213,)), ('Habitat International', 'Conservation and rehabilitation of urban heritage in developing countries', '10.1016/0197-3975(96)00012-4', (178,)), ('Ambio', 'Social and cultural sustainability: Criteria, indicators, verifier variables for measurement and maps for visualization to support planning', '10.1007/s13280-012-0376-0', (176,)), ('Sustainable Cities and Society', 'Critical sustainable development factors in the adaptive reuse of urban industrial buildings. A fuzzy DEMATEL approach', '10.1016/j.scs.2019.101684', (166,)), ('International Journal of Heritage Studies', 'The Historic Urban Landscape approach to urban management: a systematic review', '10.1080/13527258.2018.1552615', (113,)), ('Cities', 'Sustainable urban development in historical areas using the tourist trail approach: A case study of the Cultural Heritage and Urban Development (CHUD) project in Saida, Lebanon', '10.1016/j.cities.2010.02.001', (103,)), ('Sustainable Development', 'Sustainable development and the rehabilitation of a historic urban district - social sustainability in the case of Tianzifang in Shanghai', '10.1002/sd.534', (100,)), ('Gardening the World: Agency, Identity and the Ownership of Water', 'Gardening the world: Agency, identity and the ownership of water', 'NO DOI', (95,)), ('Conservation and Sustainability in Historic Cities', 'Conservation and Sustainability in Historic Cities', '10.1002/9780470759547', (77,)), ('Journal of Cultural Heritage', 'Heritage Impact Assessment, beyond an Assessment Tool: A comparative analysis of urban development impact on visual integrity in four UNESCO World Heritage Properties', '10.1016/j.culher.2020.08.002', (76,)), ('Heritage Science', 'Practices and challenges of cultural heritage conservation in historical and religious heritage sites: evidence from North Shoa Zone, Amhara Region, Ethiopia', '10.1186/s40494-022-00802-6', (76,)), ('Cities', 'Adaptive re-use of offices for residential use: The experiences of London and Toronto', '10.1016/S0264-2751(01)00009-9', (73,)), ('Landscape and Urban Planning', 'Guidelines from the heritage field for the integration of landscape and heritage planning: A systematic literature review', '10.1016/j.landurbplan.2020.103931', (73,)), ('Sustainability', 'Urban heritage conservation and rapid urbanization: Insights from Surat, India', '10.3390/su12062172', (72,)), ('Cities', 'Adaptive reuse of traditional Chinese shophouses in government-led urban renewal projects in Hong Kong', '10.1016/j.cities.2014.02.012', (68,))]

7-12	Social	148	2019.28	densification land vacant uvl density urbis spatial space pedestrian urban	[('ORYX', 'Nature matrix: Reconnecting people and nature', '10.1017/S0030605303000383', (223,)), ('Agronomy for Sustainable Development', 'Food security, climate change, and sustainable land management. A review', '10.1007/s13593-013-0133-1', (196,)), ('npj Urban Sustainability', 'Ageing and population shrinking: implications for sustainability in the urban century', '10.1038/s42949-021-00023-z', (141,)), ('Landscape and Urban Planning', "Impact of environment on people's everyday experiences in Stockholm", '10.1016/j.landurbplan.2017.11.009', (89,)), ('Buildings and Cities', 'Systematic review and comparison of densification effects and planning motivations', '10.5334/bc.125', (66,)), ('Environment and Planning B: Urban Analytics and City Science', 'Development of urban types based on network centrality, built density and their impact on pedestrian movement', '10.1177/2399808319852632', (62,)), ('Landscape and Urban Planning', 'Spatial measures and methods in sustainable urban morphology: A systematic review', '10.1016/j.landurbplan.2023.104776', (58,)), ('Journal of Urban Design', 'Cognitive affordances in sustainable urbanism: contributions of space syntax and spatial cognition', '10.1080/13574809.2016.1184565', (55,)), ('Environment and Planning B: Urban Analytics and City Science', 'Under the radar? 'Soft' residential densification in England, 2001–2011', '10.1177/2399808318772842', (49,)), ('Landscape and Urban Planning', 'Urban resilience at eye level: Spatial analysis of empirically defined experiential landscapes', '10.1016/j.landurbplan.2019.03.015', (47,)), ('Journal of Urbanism', 'Temporary urbanism and urban sustainability after a natural disaster: transitional community-initiated open spaces in Christchurch, New Zealand', '10.1080/17549175.2015.1061040', (41,)), ('Journal of Geographical Sciences', 'Urban vacant land in growing urbanization: An international review', '10.1007/s11442-020-1749-0', (38,)), ('Land Use Policy', 'Assessing urban containment policies within a suburban context—An approach to enable a regional perspective', '10.1016/j.landusepol.2016.10.031', (37,)), ('PLoS ONE', 'The regenerative compatibility: A synergy between healthy ecosystems, environmental attitudes, and restorative experiences', '10.1371/journal.pone.0227311', (35,)), ('Environment and Planning B: Planning and Design', 'Kernel densities and mixed functionality in a multicentred urban region', '10.1068/b35061', (34,)), ('Transportation Research Record', 'Exploring traffic safety and urban form in Portland, Oregon', '10.3141/2318-08', (33,)), ('Computers, Environment and Urban Systems', 'A new approach to detecting and designing living structure of urban environments', '10.1016/j.compenvurbsys.2021.101646', (32,)), ('PLoS ONE', 'Analysis on urban densification dynamics and future modes in southeastern Wisconsin, USA', '10.1371/journal.pone.0211964', (31,)), ('Biological Conservation', 'Management strategies in urban green spaces: Models based on an introduced exotic pet turtle', '10.1016/j.biocon.2009.05.004', (28,)), ('Cities', 'Sustainable and vibrant cities. Opportunities and threats to the development of Polish cities', '10.1016/j.cities.2020.103014', (28,))]
7-8	Social	196	2019.23	anp italy financial evaluation ppp soundscape private decision public projects	[('Procedia Computer Science', 'Forecasting Air Pollution Particulate Matter (PM) Using Machine Learning Regression Models', '10.1016/j.procs.2020.04.221', (224,)), ('Journal of Property Investment & Finance', 'The sustainability of urban renewal projects: a model for economic multi-criteria analysis', '10.1108/JPIF-01-2017-0003', (88,)), ('Green Energy and Technology', 'Investigating "Sustainable Neighbourhoods" in the Italian Context: A Diachronic Approach', '10.1007/978-3-031-12814-1_9', (62,)), ('Education and Urban Society', 'School as Community, Community as School: Examining Principal Leadership for Urban School Reform and Community Development', '10.1177/0013124516683997', (62,)), ('WASTES MANAGE.', 'Improving the food waste composting facilities site selection for sustainable development using a hybrid modified MADM model', '10.1016/j.wasman.2018.02.017', (61,)), ('Sustainability', 'Urban plan and water infrastructures planning: A methodology based on spatial ANP', '10.3390/su9050771', (55,)), ('Geographical Research', 'Land suitability assessment for locating industrial parks: a hybrid multi criteria decision-making approach using Geographical Information System', '10.1111/1745-5871.12176', (55,)), ('Sustainable Cities and Society', 'Rethinking social housing: Behavioural patterns and technological innovations', '10.1016/j.scs.2017.05.015', (55,)), ('Current Issues in Tourism', 'Establishing environment sustentation strategies for urban and rural/town tourism based on a hybrid MCDM approach', '10.1080/13683500.2019.1642308', (51,)), ('Journal of Environmental Planning and Management', 'Towards an agile participatory urban soundscape planning framework', '10.1080/09640568.2017.1331843', (50,)), ('Habitat International', 'The break-even analysis applied to urban renewal investments: A model to evaluate the share of social housing financially sustainable for private investors', '10.1016/j.habitatint.2016.11.004', (48,)), ('Urban Forestry and Urban Greening', 'The effects of "greening" urban areas on the perceptions of tranquillity', '10.1016/j.ufug.2017.05.010', (46,)), ('Management of Environmental Quality: An International Journal', 'A multi-methodological approach for assessing sustainability of urban projects', '10.1108/MEQ-06-2014-0088', (44,)), ('Sustainable Cities and Society', 'Decision making in urban development: The application of a hybrid evaluation method for a critical area in the city of Turin (Italy)', '10.1016/j.scs.2021.103028', (43,)), ('Sustainability', 'Saving soil for sustainable land use', '10.3390/su9030350', (43,)), ('Buildings', 'Spatial multi-Criteria decision support system and strategic environmental assessment: A case study', '10.3390/buildings7040096', (41,)), ('Journal of Property Investment & Finance', 'An analytic network process for risks assessment in commercial real estate development', '10.1108/14635780910951957', (41,)), ('Journal of Urban Technology', 'Integrating Environmental and Economic Sustainability in New Building Construction and Retrofits', '10.1080/10630732.2016.1157941', (40,)), ('Journal of Urban Technology', 'Environmental Technology, Materials Science, Architectural Design, and Real Estate Market Evaluation: A Multidisciplinary Approach for Energy-Efficient Buildings', '10.1080/10630732.2013.855512', (39,)), ('Sustainability', 'A risk based approach to evaluating the impacts of Zayanderood drought on sustainable development indicators of riverside Urban in Isfahan-Iran', '10.3390/su11236797', (38,))]
7-17	Social	107	2018.88	eu territorial european isuds jessica cohesion policy union agenda spanish	[('Urban Studies', 'Territorial cohesion: Old (French) wine in new bottles?', '10.1080/0042098042000214833', (115,)), ('Sustainable Cities and Society', 'Accessibility and connectivity – Movement between cities, as a critical factor to achieve success on cross-border cooperation (CBC) projects. A European analysis', '10.1016/j.scs.2017.03.026', (56,)), ('Sustainability', 'Sustainable and integrated urban planning and governance in metropolitan and medium-sized cities', '10.3390/su12155976', (55,)), ('European Planning Studies', 'Evaluating Integrated Sustainable Urban Development Strategies: a methodological framework applied in Portugal', '10.1080/09654313.2019.1606898', (45,)), ('International Journal of Environment and Pollution', 'Modelling and forecasting of a rational and sustainable development of Vilnius: Emphasis on pollution', '10.1504/IJEP.2007.014824', (40,)), ('Ecological Economics', 'An economic-ecological model of urban growth and urban externalities: Empirical evidence from Italy', '10.1016/S0921-8009(01)00252-X', (39,)), ('Sustainability', 'Accessibility dynamics and regional cross-border cooperation (cbc) perspectives in the Portuguese-Spanish Borderland', '10.3390/su12051978', (37,)), ('Australian Planner', 'Collaborative planning, transitions management and design thinking: evaluating three participatory approaches to urban planning', '10.1080/07293682.2018.1477812', (34,)), ('Journal of Community and Applied Social Psychology', "Children's citizenship and participation models: Participation in planning urban spaces and children's councils", '10.1002/casp.642', (30,)), ('The Routledge Companion to Urban Regeneration', 'Sustainable urban regeneration within the European Union: A case of 'Europeanization'?', '10.4324/9780203108581-24', (26,)), ('Urban Planning', 'The social sustainable city: How to involve children in designing and planning for urban childhoods?', '10.17645/up.v4i1.1719', (25,)), ('Regional Studies', 'Rescaling urban development policy in the EU: the impact of integrated place-based approaches in Cohesion Policy', '10.1080/00343404.2021.1891215', (25,)), ('International Journal of Strategic Property Management', 'A model of sustainable Urban development formation', '10.1080/1648715X.2004.9637519', (25,)), ('International Journal of Urban and Regional Research', 'Engineering the Financialization of Urban Entrpreneurialism: The JESSICA Urban Development Initiative in the European Union', '10.1111/1468-2427.12590', (24,)), ('International Journal of Urban Sustainable Development', 'Social innovation in urban spaces', '10.1080/19463138.2018.1526177', (24,)), ('Sustainability', "Villagers' perceptions of tourism activities in Iona National Park: Locality as a key factor in planning for sustainability", '10.3390/su11164448', (24,)), ('Journal of Hospitality and Tourism Management', 'Work, life and leisure in an urban ecosystem - co-creating Munich as an Entrepreneurial Destination', '10.1016/j.jhtm.2020.06.010', (22,)), ('Journal of Research in Gender Studies', 'A critical approach to EU urban policy from the viewpoint of gender', '10.22381/JRGS7120177', (22,)), ('Ciudad y Territorio Estudios Territoriales', 'The Spanish urban agenda', 'NO DOI', (22,)), ('European Urban and Regional Studies', 'Public land policy and urban planning in Greece: Diachronic continuities and abrupt reversals in a context of crisis', '10.1177/0969776418811894', (21,))]
7-9	Social	160	2018.45	vernacular traditional architecture satisfaction architectural thermal heritage bioclimatic villages design	[('Urban Policy and Research', 'Creating inclusive communities through balancing social mix: A critical relationship or tenuous link?', '10.1080/0811114022000005898', (120,)), ('Urban Studies', 'Happy people in mixed-up places: The association between the degree and type of local socioeconomic mix and expressions of neighbourhood satisfaction', '10.1177/0042098009351941', (78,)), ('Building and Environment', 'Design with the climate in housing environments: An analysis in Northern Cyprus', '10.1016/S0360-1323(01)00086-5', (72,)), ('Designing High-Density Cities for Social and Environmental Sustainability', 'Designing high-density cities for social and environmental sustainability', '10.4324/9781849774444', (63,)), ('Renewable and Sustainable Energy Reviews', 'Vernacular and bioclimatic architecture and indoor thermal comfort implications in hot-humid climates: An overview', '10.1016/j.rser.2017.06.062', (60,)), ('Chinese Geographical Science', 'Research activities on land-use/cover change in the past ten years in China using space technology', '10.1007/s11769-999-0006-3', (58,)), ('International Journal of Architectural Heritage', 'Environmental Sustainability in the Conservation of Vernacular Architecture. The Case of Rural and Urban Traditional Settlements in Cyprus', '10.1080/15583058.2020.1719235', (56,)), ('Sustainability', 'Cultural sustainability and vitality of Chinese vernacular architecture: A pedigree for the spatial art of traditional villages in Jiangnan region', '10.3390/SU11246898', (52,)), ('Energy and Buildings', 'The comparative study on the climate adaptability based on indoor physical environment of traditional dwelling in Qinba mountainous areas, China', '10.1016/j.enbuild.2019.05.045', (46,)), ('Sustainability', 'Quantitative Research on the Form of Traditional Villages Based on the Space Gene—A Case Study of Shibadong Village in Western Hunan, China', '10.3390/su14148965', (44,)), ('Ain Shams Engineering Journal', 'Heritage conservation as a bridge to sustainability assessing thermal performance and the preservation of identity through heritage conservation in the Mediterranean city of Nablus: Heritage conservation as a bridge to sustainability', '10.1016/j.asej.2021.07.007', (42,)), ('International Journal of Sustainable Development and World Ecology', 'SWOT analysis for socio-ecological landscape variation as a precursor to the management of the mountainous Kanshi watershed, Salt Range of Pakistan', '10.1080/13504509.2017.1416701', (40,)), ('International Journal of Sustainable Development and World Ecology', 'Urban design for sustainability: A study on the Turkish city', '10.1080/13504500409469808', (40,)), ('Cities', "Migrants' choice of household split or reunion in China's urbanisation process: The effect of objective and subjective socioeconomic status", '10.1016/j.cities.2020.102669', (38,)), ('Sustainable Cities and Society', 'Exploring environmental behaviour as the major determinant of ecological citizenship', '10.1016/j.scs.2018.02.036', (37,)), ('Frontiers of Architectural Research', 'Effects of vernacular architecture structure on urban sustainability case study: Qeshm Island, Iran', '10.1016/j.foar.2017.06.006', (36,)), ('Land', 'Comparative Residents' Satisfaction Evaluation for Socially Sustainable Regeneration—The Case of Two High-Density Communities in Suzhou', '10.3390/land11091483', (34,)), ('Geoforum', 'Community forests and regeneration in post-industrial landscapes', '10.1016/j.geoforum.2005.09.008', (31,)), ('HBRC Journal', 'Investigating climate responsive solutions in vernacular architecture of Bushehr city', '10.1016/j.hbrcj.2016.08.001', (31,)), ('Energy and Buildings', 'CFD modeling of the built environment in Chinese historic settlements', '10.1016/j.enbuild.2012.09.025', (31,))]

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7-11	Social	159	2018.18	crime housing fear hanoi prevention cpted design security vietnam street	[('HBRC Journal', 'Principles of urban quality of life for a neighborhood', '10.1016/j.hbrcj.2013.02.007', (164,)), ('Cities', 'Sustainable urban development and crime prevention through environmental design for the British City. Towards an effective urban environmentalism for the 21st century', '10.1016/S0264-2751(02)00008-2', (111,)), ('Urban Policy and Research', 'New urbanism, crime and the suburbs: A review of the evidence', '10.1080/08111140802084759', (83,)), ('Planning Practice & Research', 'Urban planning and environmental criminology: Towards a new perspective for safer cities', '10.1080/02697459.2011.582357', (70,)), ('Cities', 'The new Hanoi: Opportunities and challenges for future urban development', '10.1016/j.cities.2017.08.003', (62,)), ('Landscape and Urban Planning', 'Space and scale: A study of development intensity and housing price in Hong Kong', '10.1016/j.landurbplan.2010.03.005', (58,)), ('Crime Prevention and Community Safety', 'Design out crime: Creating safe and sustainable communities', '10.1057/palgrave.cpcs.8140201', (58,)), ('International Planning Studies', 'The shape of things to come: New urbanism, the grid and the Cul-De-Sac', '10.1080/13563470801969962', (55,)), ('Cities', 'Development of sustainable urban forms for high-density low-income Asian countries: The case of Vietnam. The institutional hindrance of the commons and anticommons', '10.1016/j.cities.2011.08.005', (50,)), ('Sustainable Cities and Society', 'Developing a fuzzy AHP model to evaluate environmental sustainability from the perspective of Secured by Design scheme - A case study', '10.1016/j.scs.2012.10.001', (50,)), ('Cities', 'Safety and sustainability in a city in transition: The case of Vilnius, Lithuania', '10.1016/j.cities.2010.10.001', (47,)), ('International Journal of Sustainable Development and Planning', 'Crime prevention through environmental design in Western Australia: Planning for sustainable urban futures', '10.2495/SDP-V3-N3-272-292', (45,)), ('Urban Sustainability through Environmental Design: Approaches to Time-People-Place Responsive Urban Spaces', 'Urban sustainability through environmental design: Approaches to time-people-place responsive urban spaces', '10.4324/9780203934470', (43,)), ('Remote Sensing', 'UAV Implementations in Urban Planning and Related Sectors of Rapidly Developing Nations: A Review and Future Perspectives for Malaysia', '10.3390/rs15112845', (42,)), ('Journal of Place Management and Development', 'Crime prevention through urban design and planning in the smart city era: The challenge of disseminating CP-UDP in Italy: learning from Europe', '10.1108/JPMD-09-2015-0037', (41,)), ('WIT Transactions on Ecology and the Environment', 'Planning, crime and urban sustainability', '10.2495/SDP070181', (40,)), ('Sustainability', 'Modeling pedestrian flows: Agent-based simulations of pedestrian activity for land use distributions in urban developments', '10.3390/su13169268', (40,)), ('Sustainability', 'Sustainable renovation strategy in the Swedish million homes programme: A case study', '10.3390/su8040388', (37,)), ('Town Planning Review', 'Housing design, urban form and sustainable development: reflections on the future residential landscape', '10.3828/tpr.65.2.133p852t1lmv7710', (36,)), ('The Urban Fabric of Crime and Fear', 'The urban fabric of crime and fear', '10.1007/978-94-007-4210-9', (35,))]
7-3	Social	568	2018.13	renewal regeneration redevelopment projects housing urban renovation land social participation	[('Habitat International', 'A review of recent studies on sustainable urban renewal', '10.1016/j.habitatint.2013.08.006', (369,)), ('Energy Policy', 'Does demolition or refurbishment of old and inefficient homes help to increase our environmental, social and economic viability?', '10.1016/j.enpol.2008.09.022', (318,)), ('Social Indicators Research', 'Critical factors for improving social sustainability of urban renewal projects', '10.1007/s11205-007-9089-3', (294,)), ('World Development', 'Caste and development: Contemporary perspectives on a structure of discrimination and advantage', '10.1016/j.worlddev.2018.06.003', (291,)), ('Social Indicators Research', 'The analytic hierarchy process (AHP) approach for assessment of urban renewal proposals', '10.1007/s11205-007-9228-x', (210,)), ('Urban Studies', 'City centre regeneration through residential development: Contributing to sustainability', '10.1080/00420980500379537', (163,)), ('Urban Studies', "Urban regeneration's poisoned chalice: Is there an impasse in (community) participation-based policy?", '10.1080/0042098032000053932', (162,)), ('Cities', 'Urban regeneration and sustainable development in Britain. The example of the Liverpool Ropewalks Partnership', '10.1016/S0264-2751(00)00008-1', (159,)), ('Cities', 'The role of stakeholders and their participation network in decision-making of urban renewal in China: The case of Chongqing', '10.1016/j.cities.2019.03.014', (153,)), ('Urban Studies', 'An indicator-based approach to measuring sustainable urban regeneration performance: Part 1, conceptual foundations and methodological framework', '10.1080/0042098042000194089', (146,)), ('Building Research and Information', 'Comparing environmental impacts of renovated housing stock with new construction', '10.1080/0961321060106816l', (140,)), ('Land Use Policy', 'From Habitat III to the new urbanization agenda in China: Seeing through the practices of the “three old renewals” in Guangzhou', '10.1016/j.landusepol.2018.11.021', (137,)), ('Habitat International', 'Redevelopment of urban villages in Shenzhen, China - An analysis of power relations and urban coalitions', '10.1016/j.habitatint.2010.12.001', (136,)), ('Sustainable Development', 'Regeneration for sustainable communities? Barriers to implementing sustainable housing in urban areas', '10.1002/sd.399', (124,)), ('Sustainable Cities and Society', 'Fostering sustainable urban renewal at the neighborhood scale with a spatial decision support system', '10.1016/j.scs.2017.12.038', (121,)), ('Cities', 'A framework of decision-making factors and supporting information for facilitating sustainable site planning in urban renewal projects', '10.1016/j.cities.2014.04.005', (121,)), ('Sustainable Cities and Society', 'Paths and strategies for sustainable urban renewal at the neighbourhood level: A framework for decision-making', '10.1016/j.scs.2020.102074', (120,)), ('Land Use Policy', 'Decision support for sustainable urban renewal: A multi-scale model', '10.1016/j.landusepol.2017.09.019', (116,)), ('Land Use Policy', 'Towards sustainable urban transition: A critical review of strategies and policies of urban village renewal in Shenzhen, China', '10.1016/j.landusepol.2021.105744', (113,)), ('Sustainable Cities and Society', 'Extracting the Planning Elements for Sustainable Urban Regeneration in Dubai with AHP (Analytic Hierarchy Process)', '10.1016/j.scs.2021.103496', (105,))]

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7-14	Social	128	2017.91	regeneration heritage istanbul khartoum historic saudi branding place city cultural	[('Cities', 'Reinventing the Johannesburg inner city', '10.1016/S0264-2751(00)00013-5', (92,)), ('The Routledge Companion to Urban Regeneration', 'The Routledge companion to urban regeneration', '10.4324/9780203108581', (90,)), ('Mediterranean Urbanism: Historic Urban/Building Rules and Processes', 'Mediterranean urbanism: Historic urban/building rules and processes', '10.1007/978-94-017-9140-3', (67,)), ('Urban Design International', 'Mediterranean urban and building codes: Origins, content, impact, and lessons', '10.1057/udi.2008.4', (53,)), ('International Journal of Retail & Distribution Management', 'Town centre management: How theory informs a strategic approach', '10.1108/09590550410541462', (43,)), ('Urban Regeneration: A Manifesto for transforming UK Cities in the Age of Climate Change', 'Urban regeneration: A manifesto for transforming uk cities in the age of climate change', '10.1007/978-3-030-04711-5', (41,)), ('Habitat International', 'Urban conservation in Istanbul: Evaluation and re-conceptualisation', '10.1016/j.habitatint.2004.08.001', (38,)), ('Berkeley Planning Journal', 'The "perforated city": Leipzig¥'s model of urban shrinkage management', 'NO DOI', (35,)), ('Cities', 'Forging growth by governing the market in reform-era urban China', '10.1016/j.cities.2014.02.008', (30,)), ('International Journal of Heritage Studies', 'Cultural heritage tourism as a catalyst for sustainable development; the case of old Oyo town in Nigeria', '10.1080/13527258.2023.2169332', (30,)), ('African Journal of Science, Technology, Innovation and Development', 'The contribution of creative industries to sustainable urban development in South Africa', '10.1080/20421338.2017.1327932', (28,)), ('Health and Place', 'Healthy communities: The challenge of social capital in the Lisbon Metropolitan Area', '10.1016/j.healthplace.2008.03.005', (27,)), ('Journal of Place Management and Development', 'Light Night: An “enlightening” place marketing experience', '10.1108/17538330910975883', (27,)), ('Cities', 'Youth in mixed-income communities replacing public housing complexes: Context, dynamics and response', '10.1016/j.cities.2013.03.009', (27,)), ('International Journal of Heritage Studies', 'The past as a catalyst for cultural sustainability in historic cities; the case of Doha, Qatar', '10.1080/13527258.2020.1806098', (26,)), ('Disasters', 'Flagship regeneration project as a tool for post-disaster recovery planning: The Zeytinburnu case', '10.1111/j.1467-7717.2008.01069.x', (25,)), ('Civil Engineering Journal (Iran)', 'Estimate Suitable Location of Solar Power Plants Distribution by GIS Spatial Analysis', '10.28991/CEJ-2023-09-05-013', (25,)), ('Sustainability', 'Branding Built Heritage through Cultural Urban Festivals: An Instagram Analysis Related to Sustainable Co-Creation, in Budapest', '10.3390/su14095020', (24,)), ('IOP Conference Series: Earth and Environmental Science', 'Branding for cities: The case study of Baghdad', '10.1088/1755-1315/779/1/012037', (24,)), ('Urban Policy and Research', 'Contributions of Social Capital to Best Practice Urban Planning Outcomes', '10.1080/08111146.2015.1062361', (21,))]
7-7	Social	223	2017.89	creative cultural culture creativity tourism regeneration heritage arts ccis industries	[('Issues in Cultural Tourism Studies', 'Issues in cultural tourism studies', '10.4324/9780203402825', (420,)), ('Political Geography', 'Wounded cities: Memory-work and a place-based ethics of care', '10.1016/j.polgeo.2011.10.008', (335,)), ('Cities for People, Not for Profit: Critical Urban Theory and the Right to the City', 'Cities for people, not for profit: Critical Urban theory and the right to the city', '10.4324/9780203802182', (238,)), ('International Journal of Urban and Regional Research', "The Transformation of the 'Barcelona Model': An Analysis of Culture, Urban Regeneration and Governance", '10.1111/j.1468-2427.2012.01152.x', (235,)), ('International Journal of Urban and Regional Research', "'Creative cities' and the rise of the dealer class: A critique of Richard Florida's approach to urban theory", '10.1111/j.1468-2427.2010.00939.x', (169,)), ('European Urban and Regional Studies', 'The eventification of place: Urban development and experience consumption in Berlin and New York City', '10.1177/0969776412459860', (118,)), ('Issues in Cultural Tourism Studies: Second Edition', 'Issues in cultural tourism studies: Second edition', '10.4324/9780203869857', (111,)), ('Events and Sustainability', 'Events and sustainability', '10.4324/9781315813011', (98,)), ('Geographical Review', 'Making sustainable creative/cultural space in Shanghai and Singapore', '10.1111/j.1931-0846.2009.tb00415.x', (77,)), ('Cities', 'The role of the private actor in cultural regeneration: Hybridizing cultural heritage with creativity in the city', '10.1016/j.cities.2018.05.003', (76,)), ('City, Culture and Society', 'Social innovation and creativity in cities: A socially inclusive governance approach in two peripheral spaces of Barcelona', '10.1016/j.ccs.2015.07.001', (76,)), ('City, Culture and Society', 'Culture in sustainable urban development: Practices and policies for spaces of possibility and institutional innovations', '10.1016/j.ccs.2017.09.005', (74,)), ('European Planning Studies', 'Self-Organization in Urban Regeneration: A Two-Case Comparative Research', '10.1080/09654313.2012.722963', (73,)), ('Cultural Mapping as Cultural Inquiry', 'Cultural mapping as cultural inquiry', '10.4324/9781315743066', (68,)), ('Planning Theory and Practice', 'Public participation and new urbanism: A conflicting agenda?', '10.1080/14649350701664689', (62,)), ('Cultural Political Economy of Small Cities', 'Cultural Political Economy of Small Cities', '10.4324/9780203803844', (58,)), ('Sustainable Development', 'Incorporating Culture Into Sustainable Development: A Cultural Sustainability Index Framework for Green Buildings', '10.1002/sd.1608', (56,)), ('International Journal of Heritage Studies', 'Cultural heritage entanglements: festivals as integrative sites for sustainable urban development', '10.1080/13527258.2019.1578987', (56,)), ('Creative Margins: Cultural Production in Canadian Suburbs', 'Creative margins: Cultural production in Canadian suburbs', 'NO DOI', (55,)), ('City, Culture and Society', 'The roles of artists in the emergence of creative sustainable cities: Theoretical clues and empirical illustrations', '10.1016/j.ccs.2013.04.001', (55,))]
7-23	Social	65	2017.62	housing estates minecraft heritage qbs seismic eqs games homesteading mothers	[('Restructuring Large Housing Estates in Europe: Restructuring and Resistance Inside the Welfare Industry', 'Restructuring large housing estates in Europe', 'NO DOI', (109,)), ('Journal of Housing and the Built Environment', 'European urban development: Sustainability and the role of housing', '10.1023/B:JOHO.0000017707.53782.90', (88,)), ('Soil Dynamics and Earthquake Engineering', 'Seismicity analysis and machine learning models for short-term low magnitude seismic activity predictions in Cyprus', '10.1016/j.soildyn.2019.105932', (61,)), ('ISPRS International Journal of Geo-Information', 'Minecraft as a tool for engaging children in urban planning: A Case study in Tirol Town, Brazil', '10.3390/ijgi9030170', (52,)), ('Urban Geography', 'Care, commoning and collectivity: from grand domestic revolution to urban transformation', '10.1080/02723638.2020.1785258', (52,)), ('Scientometrics', 'References, authors, journals and scientific disciplines underlying the sustainable development literature: A citation analysis', '10.1007/s11192-011-0533-4', (45,)), ('IEEE Transactions on Geoscience and Remote Sensing', 'An Optimized Learning Model Augment Analyst Decisions for Seismic Source Discrimination', '10.1109/TGRS.2022.3208097', (43,)), ('Environment, Development and Sustainability', "The literature aftermath of the brundtland report 'our common future'. A scientometric study based on citations in science and social science journals", '10.1007/s10668-003-0177-5', (40,)), ('Habitat International', 'Incorporating built environment factors into climate change mitigation strategies for Seoul, South Korea: A sustainable urban systems framework', '10.1016/j.habitatint.2008.10.020', (37,)), ('Urban Studies', 'Homeownership in South Korea: Examining sector underdevelopment', '10.1177/0042098009357967', (37,)), ('Hungarian Studies', "Budapest's large prefab housing estates: Urban values of yesterday, today and tomorrow", '10.1556/044.2015.29.1-2.2', (34,)), ('IEEE Access', 'Seismic Hazard and Site Suitability Evaluation Based on Multicriteria Decision Analysis', '10.1109/ACCESS.2022.3186937', (33,)), ('Gender, Place & Culture', 'Urban homesteading and intensive mothering: (re) gendering care and environmental responsibility in Boston and Chicago', '10.1080/0966369X.2016.1277186', (24,)), ('Tehnicki Vjesnik', 'Post-socialist development and rehabilitation of large housing estates in central and eastern europe: A review', '10.17559/TV-20181015174733', (23,)), ('Urban Policy and Research', 'Housing Policy and Urban Sustainable Development: Evaluating the Process of High-rise Apartment Development in Korea', '10.1080/08111146.2015.1118373', (20,)), ('Journal of Planning Education and Research', 'Green Health: Urban Planning and the Development of Healthy and Sustainable Neighborhoods and Schools', '10.1177/0739456X14531830', (19,)), ('Canadian Journal of Urban Research', 'Criteria for best practices in building child-friendly cities: Involving young people in urban planning and design', 'NO DOI', (19,)), ('Journal of the American Planning Association', 'The Urban Infrastructure of Care: Planning for Equitable Social Reproduction', '10.1080/01944363.2022.2099955', (15,)), ('Frontiers of Architectural Research', 'Heritage attributes of post-war housing in Amsterdam', '10.1016/j.foar.2019.04.002', (15,)), ('European New Towns: Image, Identities, Future Perspectives', 'European new towns: Image, identities, future perspectives', 'NO DOI', (14,))]

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7-21	Social	74	2016.97	placemaker placemaking identity port place places premises happy creative cultural	[('European Urban and Regional Studies', 'Territorial attractiveness in EU urban and spatial policy: A critical review and future research agenda', '10.1177/0969776411430289', (105,)), ('Planning Perspectives', 'Urban history and cultural resources in urban regeneration: a case of creative waterfront renewal', '10.1080/02665433.2013.774539', (56,)), ('Urban Studies', 'Governance and competitiveness in the Birmingham jewellery district', '10.1080/00420980701540895', (34,)), ('Creative Industries and Innovation in Europe: Concepts, Measures and Comparative Case Studies', 'Creative industries and innovation in Europe: Concepts, measures and comparative case studies', '10.4324/9780203112571', (32,)), ('Journal of Urban Design', "PlaceMaker method: Planning 'walkability' by mapping place identity", '10.1080/13574800903265504', (28,)), ('Sustainable Cities and Society', 'Is Cheonggyecheon sustainable? A systematic literature review of a stream restoration in Seoul, South Korea', '10.1016/j.scs.2018.11.018', (26,)), ('European Urban and Regional Studies', 'Attraction, competition and regional development in Europe', '10.1177/096977649600300404', (22,)), ('Journal of Urban Planning and Development', 'Place identity and placemaker: Planning the urban sustainability', '10.1061/(ASCE)0733-9488(2010)136:2(139)', (17,)), ('International Journal of Sustainable Development', 'Creative urban regeneration between innovation, identity and sustainability', '10.1504/IJSD.2009.032775', (17,)), ('International Journal of Transport Development and Integration', 'external interactions for a third generation port: FRoM urban SUSTAINABLE PLANNING TO research developmentS', '10.2495/EI-V6-N3-253-270', (17,)), ('International Journal of Sustainable Development and Planning', 'Improving sustainable enhancement of cultural heritage: Smart placemaking for experiential paths in Pompeii', '10.2495/SDP-V10-N5-713-733', (16,)), ('International Journal of Sustainable Development and Planning', 'Complex analysis for the sustainable planning and construction of the place identity: The sensitive relief method', '10.2495/SDP-V1-N1-14-31', (15,)), ('Journal of Place Management and Development', 'Liveability, quality and place identity in the contemporary city: How to monitor and mitigate the impact of globalization on urban spaces', '10.1108/17538331011083952', (15,)), ('Heritage', 'Reconsidering sustainable mobility patterns in cultural route planning: Andreas syngrou avenue, Greece', '10.3390/heritage2020104', (14,)), ('Urban Forestry and Urban Greening', 'Street trees and Urban Heat Island in Glasgow: Mitigation through the ‘Avenues Programme’', '10.1016/j.ufug.2023.128041', (14,)), ('International Journal of Sustainable Development and Planning', 'Regenerating places sustainably: The healthy urban design', '10.2495/SDP-V15-N1-14-27', (13,)), ('International Journal of Sustainable Development and Planning', 'The role of public space to achieve urban happiness', '10.2495/SDP-V12-N4-724-733', (13,)), ('International Journal of Sustainable Development and Planning', 'Sustainability in civil construction: Application of an environmental certification process (leed) during the construction phase of a hospital enterprise-rio de janeiro/Brazil', '10.2495/SDP-V8-N1-1-19', (11,)), ('Urban Design International', 'Improving liveability and attractiveness by preserving place identity in emblematic thoroughfares: A method and a case study', '10.1057/udi.2013.3', (10,)), ('WIT Transactions on Ecology and the Environment', 'Liveable and healthy city design', '10.2495/SDP180171', (9,))]
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8-1	Resilience	914	2020.10	resilience disaster resilient ecological risk cities urban climate disasters adaptation	[('Ecology and Society', 'Resilience, adaptability and transformability in social-ecological systems', '10.5751/ES-00650-090205', (5308,)), ('Ecosystems', 'From Metaphor to Measurement: Resilience of What to What?', '10.1007/s10021-001-0045-9', (2638,)), ('Landscape and Urban Planning', 'From fail-safe to safe-to-fail: Sustainability and resilience in the new urban world', '10.1016/j.landurbplan.2011.02.021', (897,)), ('Nature Sustainability', 'Sustainability and resilience for transformation in the urban century', '10.1038/s41893-019-0250-1', (813,)), ('Current Opinion in Environmental Sustainability', 'Climate change and urban resilience', '10.1016/j.cosust.2010.12.014', (664,)), ('Renewable and Sustainable Energy Reviews', 'Principles and criteria for assessing urban energy resilience: A literature review', '10.1016/j.rser.2016.03.028', (458,)), ('Environment and Urbanization', 'Resilience trade-offs: addressing multiple scales and temporal aspects of urban resilience', '10.1177/0956247814550780', (346,)), ('Natural Hazards Review', 'Creating hazard resilient communities through land-use planning', '10.1061/(ASCE)1527-6988(2000)1:2(99)', (342,)), ('Agronomy for Sustainable Development', 'Adaptiveness to enhance the sustainability of farming systems. A review', '10.1051/agro/2009053', (325,)), ('Ecology and Society', 'From resilience to transformation: The adaptive cycle in two Mexican urban centers', '10.5751/ES-04038-160211', (318,)), ('Cities', 'Building up resilience in cities worldwide – Rotterdam as participant in the 100 Resilient Cities Programme', '10.1016/j.cities.2016.05.011', (310,)), ('Ecology and Society', 'Sustainability, stability, and resilience', '10.5751/es-00012-010107', (304,)), ('Environment and Development Economics', 'Resilience and sustainable development', '10.1017/S1355770X06003020', (286,)), ('Cities', 'Urban resilience and urban sustainability: What we know and what do not know?', '10.1016/j.cities.2017.08.009', (280,)), ('Journal of Cleaner Production', 'Planning for climate change in urban areas: From theory to practice', '10.1016/j.jclepro.2012.12.008', (279,)), ('Sustainability Science', 'Creating an academic landscape of sustainability science: An analysis of the citation network', '10.1007/s11625-007-0027-8', (260,)), ('Disasters', 'From disaster to sustainable civil society: The Kobe experience', '10.1111/j.0361-3666.2004.00241.x', (232,)), ('Cities', 'Resilient urban forms: A macro-scale analysis', '10.1016/j.cities.2018.11.023', (229,)), ('Climate Policy', 'Inclusive approaches to urban climate adaptation planning and implementation in the Global South', '10.1080/14693062.2015.1019822', (206,)), ('Cities', 'Transitioning to resilience and sustainability in urban communities', '10.1016/j.cities.2013.03.010', (201,))]

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8-13	Resilience	106	2019.22	health vulnerability migration migrants hazards populations expectancy risks risk migrant	[('Proceedings of the National Academy of Sciences of the United States of America', 'Heterogeneity and scale of sustainable development in cities', '10.1073/pnas.1606033114', (200,)), ('Environment International', 'Defining pathways to healthy sustainable urban development', '10.1016/j.envint.2020.106236', (158,)), ('Nature', 'Expand the frontiers of urban sustainability', '10.1038/536391a', (147,)), ('Environmental Research Letters', 'Focus on environmental risks and migration: Causes and consequences', '10.1088/1748-9326/10/6/060201', (126,)), ('Proceedings of the National Academy of Sciences of the United States of America', 'Urban sustainability in an age of enduring inequalities: Advancing theory and ecometrics for the 21st-century city', '10.1073/pnas.1614433114', (113,)), ('World Development', 'Managing risk, changing aspirations and household dynamics: Implications for wellbeing and adaptation in semi-arid Africa and India', '10.1016/j.worlddev.2019.104667', (87,)), ('GeoJournal', 'Megacities and natural disasters: A comparative analysis', '10.1023/A:1007024703844', (67,)), ('Cities', 'Sustainable adaptation: Social equity and local climate adaptation planning in U.S. cities', '10.1016/j.cities.2021.103235', (66,)), ('Energy for Sustainable Development', 'Household electricity access and consumption behaviour in an urban environment: The case of Gauteng in South Africa', '10.1016/j.esd.2014.06.003', (42,)), ('Urban Studies', 'Commentary: Inequality, precarity and sustainable ecosystems as elements of urban resilience', '10.1177/0042098020904594', (38,)), ('Ecological Economics', 'Class/racial conflict, intolerance, and distortions in urban form: Lessons for sustainability from the Detroit region', '10.1016/j.ecolecon.2013.10.007', (35,)), ('Environmental and Engineering Geoscience', 'Suitability assessment for New Minia City, Egypt: A GIS approach to engineering geology', '10.2113/11.3.259', (32,)), ('Sustainable Cities and Society', 'Integrated seismic vulnerability assessment of road network in complex built environment toward more resilient cities', '10.1016/j.scs.2022.104363', (31,)), ('Sustainable Cities and Society', 'Investigating the relationship between environmental quality, socio-spatial segregation and the social dimension of sustainability in US urban areas', '10.1016/j.scs.2021.102732', (29,)), ('Soil Dynamics and Earthquake Engineering', "Earthquake early warning as a tool for improving society's resilience and crisis response", '10.1016/j.soildyn.2010.09.004', (29,)), ('Information and Management', 'An anticrime information support system design: Application of K-means-VMD-BiGRU in the city of Chicago', '10.1016/j.im.2019.103247', (27,)), ('Sustainability', 'Decarbonization and circular economy in the sustainable development and renovation of buildings and neighbourhoods', '10.3390/SU12197914', (27,)), ('Deltas in the Anthropocene', 'Where People Live and Move in Deltas', '10.1007/978-3-030-23517-8_7', (27,)), ('Urban Health: Combating Disparities with Local Data', 'Urban Health: Combating Disparities with Local Data', '10.1093/acprof:oso/9780199731190.001.0001', (24,)), ('Sustainability', 'Geographicallyweighted regression models in estimating median home prices in towns of Massachusetts based on an urban sustainability framework', '10.3390/su10041026', (23,))]
8-8	Resilience	200	2018.79	livability liveability quality qol life livable indicators coastal city urban	[('Landscape and Urban Planning', 'Urban environmental quality and human well-being towards a conceptual framework and demarcation of concepts; a literature study', '10.1016/S0169-2046(02)00232-3', (636,)), ('Habitat International', 'Quality of urban life & environmental sustainability studies: Future linkage opportunities', '10.1016/j.habitatint.2014.06.019', (138,)), ('World Development', 'Adaptation to climate change: A review through a development economics lens', '10.1016/j.worlddev.2017.11.016', (132,)), ('Renewable and Sustainable Energy Reviews', 'Impact of EV fast charging stations on the power distribution network of a Latin American intermediate city', '10.1016/j.rser.2019.03.017', (119,)), ('Environmental Science and Policy', 'Coastal vulnerability: Evolving concepts in understanding vulnerable people and places', '10.1016/j.envsci.2018.01.006', (111,)), ('Annals of Operations Research', 'The assessment of cities' livability integrating human wellbeing and environmental impact', '10.1007/s10479-014-1666-7', (94,)), ('Habitat International', 'Urban livability and tourism development in China: Analysis of sustainable development by means of spatial panel data', '10.1016/j.habitatint.2017.02.005', (90,)), ('Sustainable Cities and Society', 'City Noise-Air: An environmental quality index for cities', '10.1016/j.scs.2012.03.001', (87,)), ('Science, Technology, & Human Values', 'Post-normal science in practice at the Netherlands environmental assessment agency', '10.1177/0162243910385797', (86,)), ('Habitat International', 'Rapid development as a factor of imbalance in urban growth of cities in Latin America: A perspective based on territorial indicators', '10.1016/j.habitatint.2016.10.005', (78,)), ('Geomorphology', 'Linking restoration ecology with coastal dune restoration', '10.1016/j.geomorph.2013.05.007', (78,)), ('Ecological Indicators', 'Developing and testing a framework for the assessment of neighbourhood liveability in two contrasting countries: Iran and Estonia', '10.1016/j.ecolind.2014.07.033', (76,)), ('Journal of Cleaner Production', 'Trade-offs among urban sustainability, pollution and livability in European cities', '10.1016/j.jclepro.2019.03.110', (76,)), ('Land Use Policy', 'The livable urban landscape: GIS and remote sensing extracted land use assessment for urban livability in Changchun Proper, China', '10.1016/j.landusepol.2019.104048', (75,)), ('Sustainable Cities and Society', 'The spatial analysis of the livability of 22 districts of Tehran Metropolis using multi-criteria decision making approaches', '10.1016/j.scs.2018.01.018', (67,)), ('Journal of Cleaner Production', 'Effects of urban environmental policies on improving firm efficiency: Evidence from Chinese new energy vehicle firms', '10.1016/j.jclepro.2019.01.099', (61,)), ('Habitat International', 'Exploring wellbeing in human settlements - A spatial planning perspective', '10.1016/j.habitatint.2019.04.007', (59,)), ('Chinese Journal of Applied Ecology', 'Evaluation of urban human settlement quality in Ningxia based on AHP and the entropy method', 'NO DOI', (57,)), ('Journal of Cleaner Production', 'Does economic development bring more livability? Evidence from Jiangsu Province, China', '10.1016/j.jclepro.2021.126187', (52,)), ('Cities', 'Improving city-scale measures of livable sustainability: A study of urban measurement and assessment through application to the city of Birmingham, UK', '10.1016/j.cities.2017.06.016', (50,))]
8-3	Resilience	432	2018.27	leed neighborhood tools neighbourhood assessment sustainability rating indicators nd neighbourhoods	[('Journal of Environmental Planning and Management', 'Re-thinking sustainability indicators: Local perspectives of urban sustainability', '10.1080/09640568.2012.698984', (286,)), ('Journal of Cleaner Production', 'Urban sustainability assessment tools: A review', '10.1016/j.jclepro.2018.11.009', (258,)), ('Environmental Impact Assessment Review', 'A critical review of environmental assessment tools for sustainable urban design', '10.1016/j.eiar.2015.07.006', (215,)), ('Building and Environment', 'Sustainability assessment and rating of buildings: Developing the methodology SBTool-H', '10.1016/j.buildenv.2011.04.023', (213,)), ('Sustainable Cities and Society', 'Urban sustainability assessment framework development: The ranking and weighting of sustainability indicators using analytic hierarchy process', '10.1016/j.scs.2018.10.020', (213,)), ('Environmental Impact Assessment Review', 'Towards sustainable urban communities', '10.1016/j.eiar.2011.08.002', (206,)), ('Environment, Development and Sustainability', 'Sustainability assessment of urban communities through rating systems', '10.1007/s10668-013-9462-0', (206,)), ('Ecological Indicators', 'Urban sustainability assessment: An overview and bibliometric analysis', '10.1016/j.ecolind.2020.107102', (199,)), ('Habitat International', 'Promoting and implementing urban sustainability in China: An integration of sustainable initiatives at different urban scales', '10.1016/j.habitatint.2018.10.001', (193,)), ('Sustainability', 'An analysis of the most adopted rating systems for assessing the environmental impact of buildings', '10.3390/su9071226', (185,)), ('Sustainable Cities and Society', 'A need for balanced approach to neighborhood sustainability assessments: A critical review and analysis', '10.1016/j.scs.2015.05.004', (169,)), ('Sustainability', 'A systematic review of urban sustainability assessment literature', '10.3390/su9112048', (159,)), ('Habitat International', 'Developing sustainable neighbourhoods', '10.1016/j.habitatint.2007.06.007', (152,)), ('Landscape and Urban Planning', 'A systematic review of guiding principles for sustainable urban neighborhood development', '10.1016/j.landurbplan.2013.06.002', (132,)), ('Accounting Forum', 'A framework model for assessing sustainability impacts of urban development', '10.1016/j.accfor.2008.09.003', (127,)), ('Building Research and Information', 'Assessing cities: A new system of cross-scale spatial indicators', '10.1080/09613218.2012.703488', (125,)), ('Environmental Impact Assessment Review', 'Sustainability on the urban scale: Proposal of a structure of indicators for the Spanish context', '10.1016/j.eiar.2015.03.002', (113,)), ('Sustainability', 'Neighborhood sustainability assessment: Evaluating residential development sustainability in a developing country context', '10.3390/su7032570', (111,)), ('Cities', 'Smart assessment and forecasting framework for healthy development index in urban cities', '10.1016/j.cities.2022.103971', (98,)), ('Environmental Impact Assessment Review', 'Beyond the buildingcentric approach: A vision for an integrated evaluation of sustainable buildings', '10.1016/j.eiar.2011.12.003', (98,))]

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8-12	Resilience	115	2017.18	satisfaction ipa housing chorems fishers sediment planning loyalty eco land	[('Building and Environment', 'High-quality housing-A key issue in delivering sustainable communities', '10.1016/j.buildenv.2008.04.004', (117,)), ('Resilient Cities: Overcoming Fossil Fuel Dependence', 'Resilient cities: Overcoming fossil fuel dependence', '10.5822/978-1-61091-686-8', (115,)), ('International Planning Studies', 'Urban residential satisfaction and the planning implications in a developing world context: The example of Benin City, Nigeria', '10.1080/13563470220112599', (84,)), ('Sustainability', 'MCDM assessment of a healthy and safe built environment according to sustainable development principles: A practical neighborhood approach in vilnius', '10.3390/su9050702', (82,)), ('Land Use Policy', 'Climate resilient urban development: Why responsible land governance is important', '10.1016/j.landusepol.2015.05.026', (59,)), ('Sustainability', 'Construction projects assessment based on the sustainable development criteria by an integrated fuzzy AHP and improved GRA model', '10.3390/su10040991', (55,)), ('Environment International', 'Measuring combined exposure to environmental pressures in urban areas: An air quality and noise pollution assessment approach', '10.1016/j.envint.2011.09.007', (52,)), ('Buildings', 'Earthquake safety assessment of buildings through rapid visual screening', '10.3390/buildings10030051', (47,)), ('Territory, Politics, Governance', "'Right to the city' and the New Urban Agenda: learning from the right to housing", '10.1080/21622671.2018.1499549', (41,)), ('Environmental Science and Pollution Research', 'An integrated importance-performance analysis and modified analytic hierarchy process approach to sustainable city assessment', '10.1007/s11356-021-15235-0', (34,)), ('The Social Impacts of Urban Containment', 'The social impacts of urban containment', 'NO DOI', (29,)), ('City and Society', 'Understanding Prosperity in East London: Local Meanings and “Sticky” Measures of the Good Life', '10.1111/ciso.12208', (28,)), ('Global Journal of Environmental Science and Management', 'Strategic management in urban environment using SWOT and QSPM model', '10.22034/gjesm.2017.03.02.009', (28,)), ('Sustainability', 'Sustainability assessment of the new residential projects in the Baltic States: A multiple criteria approach', '10.3390/su10051387', (27,)), ('Sustainability', 'Exploring the determinants of residential satisfaction in historic urban quarters: Towards sustainability of the Walled City Famagusta, North Cyprus', '10.3390/su11226261', (26,)), ('Sustainable Cities and Society', 'Urban vulnerability in the EMME region and sustainable development goals: A new conceptual framework', '10.1016/j.scs.2022.103763', (24,)), ('Sustainability', 'Residents' sustainable city evaluation, satisfaction and loyalty: Integrating importance-performance analysis and structural equation modelling', '10.3390/su13126766', (24,)), ('Current Opinion in Environmental Sustainability', 'Information and communication technology in shaping urban low carbon development pathways', '10.1016/j.cosust.2018.05.015', (24,)), ('Environment International', 'Cense: A tool to assess combined exposure to environmental health stressors in urban areas', '10.1016/j.envint.2013.10.014', (23,)), ('Journal of Urbanism', 'Analytic Network Process and sustainable mobility: An application for the assessment of different scenarios', '10.1080/17549175.2010.528719', (23,))]

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8-10	Resilience	157	2011.69	sud bequest assessment visualisation sustainability peoria project knowledge development indicators	[('Journal of Cleaner Production', 'A scientometric review of global research on sustainability and sustainable development', '10.1016/j.jclepro.2018.02.162', (652,)), ('International Journal of Sustainable Development and World Ecology', 'PICABUE: A methodological framework for the development of indicators of sustainable development', '10.1080/13504509509469893', (248,)), ('Nature', 'Mapping changes in housing in sub-Saharan Africa from 2000 to 2015', '10.1038/s41586-019-1050-5', (172,)), ('Building Research and Information', "The relevance of Green Building Challenge: An observer's perspective", '10.1080/096132199369426', (161,)), ('International Journal of Project Management', 'A social ontology for appraising sustainability of construction projects and developments', '10.1016/j.ijproman.2008.04.003', (153,)), ('Environment, Development and Sustainability', 'Reframing social sustainability reporting: Towards an engaged approach', '10.1007/s10668-012-9384-2', (142,)), ('Habitat International', "The role of the construction industry in China's sustainable urban development", '10.1016/j.habitatint.2014.09.008', (112,)), ('Building Research and Information', 'Which focus for building assessment methods - Environmental performance or sustainability?', '10.1080/096132199369435', (106,)), ('Building Research and Information', 'A vision and methodology for integrated sustainable urban development: BEQUEST', '10.1080/096132102753436468', (97,)), ('Building Research and Information', 'The implications of urban sustainability', '10.1080/096132198370074', (67,)), ('Urban Studies', 'A meta-analytical evaluation of sustainable city initiatives', '10.1080/0042098984240', (67,)), ('Building Research and Information', 'The assessment of sustainable urban development', '10.1080/096132102753436477', (65,)), ('Progress in Planning', 'Urban sustainability: discourses, networks and policy tools', '10.1016/s0305-9006(96)00006-2', (62,)), ('Proceedings of the Institute of Civil Engineers: Bridge Engineering', 'Integrated assessment of urban sustainability', '10.1680/ensu.2005.158.2.57', (58,)), ('Building Research and Information', 'Development of a comprehensive city assessment tool: CASBEE-City', '10.1080/09613218.2011.563920', (56,)), ('The Environment in Asia Pacific Harbours', 'The environment in Asia Pacific Harbours', '10.1007/1-4020-3655-8', (54,)), ('Town & Country Planning', 'Planning the sustainable city region', 'NO DOI', (52,)), ('Building Research and Information', "Citizens' expectations of information cities: Implications for urban planning and design", '10.1080/096132104200032942 2', (51,)), ('European Planning Studies', 'Rethinking on Sustainable Rural Development', '10.1080/09654313.2014.945813', (50,)), ('Building Research and Information', 'Professionalism and professional institutions in times of change', '10.1080/09613218.2013.737096', (47,))]

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9-13	Agriculture and Food	73	2020.25	rural provenance linkages naturbanization tourism upms pyrenees areas food development	[('European Urban and Regional Studies', "Exploring the 'New Rural Paradigm' in Europe: Eco-economic strategies as a counterforce to the global competitiveness agenda", '10.1177/0969776412441934', (154,)), ('Global Ecology and Conservation', 'The mutual benefits of promoting rural-urban interdependence through linked ecosystem services', '10.1016/j.gecco.2019.e00707', (132,)), ('Sustainability', 'Rural-urban linkages and sustainable regional development: The role of entrepreneurs in linking peripheries and centers', '10.3390/su8080745', (105,)), ('Ain Shams Engineering Journal', 'Proximate analysis of waste-to-energy potential of municipal solid waste for sustainable renewable energy generation', '10.1016/j.asej.2023.102357', (52,)), ('Sociologia Ruralis', 'Exploring the Rural Eco-Economy: Beyond Neoliberalism', '10.1111/soru.12139', (49,)), ('Perspectives in Ecology and Conservation', 'Perspectives for environmental conservation and ecosystem services on coupled rural–urban systems', '10.1016/j.pecon.2017.05.005', (49,)), ('Tourism and Hospitality Research', 'Circular economy and sustainable strategies in the hospitality industry: Current trends and empirical implications', '10.1177/14673584221119581', (33,)), ('Carpathian Journal of Earth and Environmental Sciences', "Environmental and women's entrepreneurship: A sustainable local development approach", 'NO DOI', (29,)), ('Agriculture and Human Values', 'A comparative analysis of agricultural knowledge and innovation systems in Kenya and Ghana: sustainable agricultural intensification in the rural–urban interface', '10.1007/s10460-016-9725-0', (29,)), ('Human Geographies', 'New approaches to sustainable rural development: Social farming as an opportunity in Europe?', '10.5719/hgeo.2017.111.2', (27,)), ('International Journal of Sustainable Development and World Ecology', 'Characteristics associated with high and low levels of ecological literacy in a western society', '10.1080/13504509.2017.1384412', (27,)), ('Educational Technology Research and Development', 'Promise and reality: using ICTs to bridge China's rural–urban divide in education', '10.1007/s11423-022-10118-8', (23,)), ('Sustainability', "Hospitals' financial health in rural and urban areas in poland: Does it ensure sustainability?", '10.3390/su11071932', (23,)), ('Journal of Environment and Development', 'Community-Managed Water Services: The Case of Peru', '10.1177/1070496517734020', (23,)), ('Sustainability', 'Social farming in the virtuous system of the circular economy. An exploratory research', '10.3390/su13020989', (20,)), ('Sustainability', 'Supply Chain Sustainability during COVID-19: Last Mile Food Delivery in China', '10.3390/su14031484', (19,)), ('Sustainability', 'Network governance arrangements and rural-urban synergy', '10.3390/su13052952', (18,)), ('Habitat International', 'Urban-rural reciprocal interaction potential to develop weekly markets and regional development in Iran', '10.1016/j.habitatint.2017.01.003', (17,)), ('Land', 'Transitioning towards a sustainable wellbeing economy—implications for rural–urban relations', '10.3390/land10050512', (16,)), ('Sustainability', 'Managing a circular food system in sustainable urban farming. Experimental research at the turku university campus (finland)', '10.3390/su13116231', (16,))]
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10-15	Metabolism	55	2020.25	biomimicry biomimetic regenerative biomimetics design dentists dental architecture built building	[('Journal of Cleaner Production', 'Sustainable buildings for healthier cities: assessing the co-benefits of green buildings in Japan', '10.1016/j.jclepro.2016.01.086', (165,)), ('Regenerative Urban Design and Ecosystem Biomimicry', 'Regenerative urban design and ecosystem biomimicry', '10.4324/9781315114330', (68,)), ('Architectural Science Review', 'Ecosystem processes for biomimetic architectural and urban design', '10.1080/00038628.2014.968086', (34,)), ('Sustainability', 'Application of biomimetics to architectural and urban design: A review across scales', '10.3390/su12239813', (30,)), ('Journal of Cleaner Production', 'The impact of building location on green certification price premiums: Evidence from three European countries', '10.1016/j.jclepro.2020.122080', (30,)), ('Landscape and Urban Planning', 'Unearthing ecological wisdom from natural habitats and its ramifications on development of biocement and sustainable cities', '10.1016/j.landurbplan.2016.04.013', (28,)), ('Expert Systems', 'A taxonomy of energy optimization techniques for smart cities: Architecture and future directions', '10.1111/exsy.12703', (27,)), ('Journal of agricultural & environmental ethics', 'Biomimicry in Agriculture: Is the Ecological System-Design Model the Future Agricultural Paradigm?', '10.1007/s10806-017-9702-7', (26,)), ('Biomimetics', 'Applications of Biomimicry in Architecture, Construction and Civil Engineering', '10.3390/biomimetics8020202', (23,)), ('Proceedings - 2020 IEEE International Conference on Engineering, Technology and Innovation, ICE/ITMC 2020', 'Sustainability Is Not Enough: Towards AI Supported Regenerative Design', '10.1109/ICE/ITMC49519.2020.9198554', (20,)), ('Buildings', 'Biomimetic urban design: Ecosystem service provision of water and energy', '10.3390/buildings7010021', (16,)), ('Biotechnologies and Biomimetics for Civil Engineering', 'Introduction to biotechnologies and biomimetics for civil engineering', '10.1007/978-3-319-09287-4_1', (14,)), ('Planning Malaysia', 'Use pattern and activities: The evaluation of Malaysian green open space design', 'NO DOI', (12,)), ('Energy and Buildings', 'Population changes and sustainability of energy drive cooling demand related risks in urbanized India', '10.1016/j.enbuild.2022.111891', (11,)), ('Journal of Environmental Planning and Management', 'A comparative study of green building in urban and transitioning rural North Carolina', '10.1080/09640568.2010.550793', (11,)), ('Sustainability', 'Investigating Regenerative Ideation within Sustainable Development Goals', '10.3390/su141610137', (11,)), ('Sustainability', 'Implementing regenerative design principles: A refurbishment case study of the first regenerative building in spain', '10.3390/su13042411', (11,)), ('Dentistry Journal', 'Awareness of Students and Dentists on Sustainability Issues, Safety of Use and Disposal of Dental Amalgam', '10.3390/dj11010021', (10,)), ('International Journal of Sustainable Energy', 'Passive cooling energy systems: holistic SWOT analyses for achieving urban sustainability', '10.1080/14786451.2020.1763348', (10,)), ('International Journal of Environmental Science and Technology', 'Biomimetic: a new strategy for a passive sustainable ventilation system design in hot and arid regions', '10.1007/s13762-018-2168-y', (10,))]
10-3	Metabolism	294	2020.14	nexus water wef food energy sectors resources supply resource embodied	[('Resources, Conservation and Recycling', 'Food-energy-water (FEW) nexus for urban sustainability: A comprehensive review', '10.1016/j.resconrec.2018.11.018', (272,)), ('Applied Energy', 'The Water-Energy-Food Nexus in East Asia: A tele-connected value chain analysis using inter-regional input-output analysis', '10.1016/j.apenergy.2017.05.159', (264,)), ('Applied Energy', 'Urban energy–water nexus: A network perspective', '10.1016/j.apenergy.2016.03.042', (259,)), ('Applied Energy', 'Energy–water nexus of urban agglomeration based on multiregional input–output tables and ecological network analysis: A case study of the Beijing–Tianjin–Hebei region', '10.1016/j.apenergy.2016.06.112', (252,)), ('Applied Energy', 'Linkage analysis for the water–energy nexus of city', '10.1016/j.apenergy.2016.04.020', (231,)), ('Journal of Environmental Management', 'The energy-water-food nexus: Strategic analysis of technologies for transforming the urban metabolism', '10.1016/j.jenvman.2014.01.054', (224,)), ('Energy Policy', 'Sustainable planning of the energy-water-food nexus using decision making tools', '10.1016/j.enpol.2017.11.037', (188,)), ('Journal of Cleaner Production', 'Sustainable energy, water and food nexus systems: A focused review of decision-making tools for efficient resource management and governance', '10.1016/j.jclepro.2019.03.304', (169,)), ('Applied Energy', 'The FEW-Nexus city index – Measuring urban resilience', '10.1016/j.apenergy.2017.02.026', (157,)), ('Renewable and Sustainable Energy Reviews', "Energy use embodied in China's construction industry: A multi-regional input-output analysis", '10.1016/j.rser.2015.09.068', (155,)), ('Renewable Energy', 'Pre-feasibility MCDM tools to aid communities in prioritizing local viable renewable energy sources', '10.1016/j.renene.2004.02.012', (146,)), ('Environmental Science and Technology', 'Decoupling analysis and socioeconomic drivers of environmental pressure in China', '10.1021/es4042429', (142,)), ('Applied Energy', 'Urban energy–water nexus based on modified input–output analysis', '10.1016/j.apenergy.2017.02.011', (140,)), ('Renewable and Sustainable Energy Reviews', 'The role of water-energy nexus in optimising water supply systems – Review of techniques and approaches', '10.1016/j.rser.2017.05.125', (138,)), ('Environmental Science and Technology', 'Gaining perspective on the water-energy nexus at the community scale', '10.1021/es103230n', (133,)), ('Energy Conversion and Management', 'A techno-economic-environmental study evaluating the potential of oxygen-steam biomass gasification for the generation of value-added products', '10.1016/j.enconman.2019.06.019', (126,)), ('Applied Energy', 'Exploring the environmental pressures in urban sectors: An energy-water-carbon nexus perspective', '10.1016/j.apenergy.2018.07.090', (113,)), ('Journal of Cleaner Production', 'Integrating fourth industrial revolution (4IR) technologies into the water, energy & food nexus for sustainable security: A bibliometric analysis', '10.1016/j.jclepro.2022.132522', (110,)), ('Journal of Environmental Management', 'System dynamics simulation of regional water supply and demand using a food-energy-water nexus approach: Application to Qazvin Plain, Iran', '10.1016/j.jenvman.2020.111843', (106,)), ('Resources, Conservation and Recycling', 'Water-energy nexus within urban agglomeration: An assessment framework combining the multiregional input-output model, virtual water, and embodied energy', '10.1016/j.resconrec.2020.105113', (106,))]

10-10	Metabolism	102	2019.75	symbiosis industrial urs energy waste canal uis carbon eco emissions	[('Science of the Total Environment, The', 'Strategy development in the framework of waste management', '10.1016/j.scitotenv.2020.137088', (277,)), ('Journal of Cleaner Production', 'Cities: The core of climate change mitigation', '10.1016/j.jclepro.2018.10.034', (270,)), ('Journal of Cleaner Production', 'Low carbon cities in 2050? GHG emissions of European cities using production-based and consumption-based emission accounting methods', '10.1016/j.jclepro.2019.119206', (170,)), ('Journal of Cleaner Production', 'Eco-industrial park development in Rio de Janeiro, Brazil: a tool for sustainable development', '10.1016/j.jclepro.2008.11.009', (131,)), ('Resources, Conservation and Recycling', 'Comparative study on the pathways of industrial parks towards sustainable development between China and Canada', '10.1016/j.resconrec.2016.06.012', (126,)), ('Global Environmental Change', 'How does carbon dioxide emission change with the economic development? Statistical experiences from 132 countries', '10.1016/j.gloenvcha.2013.06.006', (125,)), ('Journal of Cleaner Production', 'Towards preventative eco-industrial development: An industrial and urban symbiosis case in one typical industrial city in China', '10.1016/j.jclepro.2015.05.015', (124,)), ('Energy Policy', 'Uncovering opportunity of low-carbon city promotion with industrial system innovation: Case study on industrial symbiosis projects in China', '10.1016/j.enpol.2013.10.019', (117,)), ('Ecological Modelling', 'Highlighting regional eco-industrial development: Life cycle benefits of an urban industrial symbiosis and implications in China', '10.1016/j.ecolmodel.2017.07.032', (95,)), ('Journal of Cleaner Production', 'Tracking urban sustainability transition: An eco-efficiency analysis on eco-industrial development in Ulsan, Korea', '10.1016/j.jclepro.2020.121286', (86,)), ('Ecological Indicators', 'A review on eco-city evaluation methods and highlights for integration', '10.1016/j.ecolind.2015.08.044', (85,)), ('Ecological Indicators', 'A comprehensive evaluation on industrial & urban symbiosis by combining MFA, carbon footprint and emergy methods—Case of Kawasaki, Japan', '10.1016/j.ecolind.2016.10.016', (81,)), ('Journal of Cleaner Production', 'Industrial symbiosis as a countermeasure for resource dependent city: A case study of Guiyang, China', '10.1016/j.jclepro.2015.04.089', (73,)), ('Circular Economy and Sustainability', 'Match Circular Economy and Urban Sustainability: Re-investigating Circular Economy Under Sustainable Development Goals (SDGs)', '10.1007/s43615-021-00032-1', (59,)), ('Resources, Conservation and Recycling', 'Innovative planning and evaluation system for district heating using waste heat considering spatial configuration: A case in Fukushima, Japan', '10.1016/j.resconrec.2016.03.006', (56,)), ('Journal of Cleaner Production', 'Evaluation of promoting industrial symbiosis in a chemical industrial park: A case of Midong', '10.1016/j.jclepro.2016.07.006', (54,)), ('Journal of Cleaner Production', 'Recent progress on innovative eco-industrial development', '10.1016/j.jclepro.2015.09.051', (53,)), ('Resources, Conservation and Recycling', 'Recent progress on innovative urban infrastructures system towards sustainable resource management', '10.1016/j.resconrec.2017.02.020', (51,)), ('Environmental Science and Technology', 'Developing a science of infrastructure ecology for sustainable urban systems', '10.1021/es3025534', (43,)), ('Journal of Cleaner Production', 'Uncovering the benefits of integrating industrial symbiosis and urban symbiosis targeting a resource-dependent city: A case study of Yongcheng, China', '10.1016/j.jclepro.2020.120210', (43,))]
10-14	Metabolism	60	2019.72	factories manufacturing production factory companies rdm products ultra pedestrian packaging	[('Computers and Industrial Engineering', 'Urban production – A socially sustainable factory concept to overcome shortcomings of qualified workers in smart SMEs', '10.1016/j.cie.2018.08.035', (89,)), ('Journal of Cleaner Production', 'Advancing sustainable consumption and production in cities - A transdisciplinary research and stakeholder engagement framework to address consumption-based emissions and impacts', '10.1016/j.jclepro.2018.12.050', (69,)), ('Materials', 'Spent coffee grounds in the production of lightweight clay ceramic aggregates in view of urban and agricultural sustainable development', '10.3390/ma12213581', (47,)), ('Scientific Reports', 'Circular manufacturing of chitinous bio-composites via bioconversion of urban refuse', '10.1038/s41598-020-61664-1', (46,)), ('International Journal of Applied Ceramic Technology', 'The circular economy of agro and post-consumer residues as raw materials for sustainable ceramics', '10.1111/ijac.13396', (45,)), ('Sustainability', 'A Conceptual Definition and Future Directions of Urban Smart Factory for Sustainable Manufacturing', '10.3390/su14031221', (32,)), ('International Journal of Sustainable Engineering', 'An exploration of the potential for re-distributed manufacturing to contribute to a sustainable, resilient city', '10.1080/19397038.2017.1318969', (30,)), ('Procedia CIRP', 'Urban Factories and Their Potential Contribution to the Sustainable Development of Cities', '10.1016/j.procir.2017.11.067', (28,)), ('International Journal of Production Research', 'Competitive and sustainable manufacturing by means of ultra-efficient factories in urban surroundings', '10.1080/00207543.2016.1189106', (22,)), ('Smart Innovation, Systems and Technologies', 'Design of an integrated assessment of re-distributed manufacturing for the sustainable, resilient city', '10.1007/978-3-319-32098-4_51', (18,)), ('Environment and Urbanization', 'Producing, providing, trading: Manufacturing industry and sustainable cities', '10.1630/095624799101285101', (17,)), ('Journal of Cleaner Production', 'Environmental attributes of fungal-like adhesive materials and future directions for bioinspired manufacturing', '10.1016/j.jclepro.2020.125335', (16,)), ('Procedia CIRP', 'Life cycle assessment for the comparison of urban and non-urban produced products', '10.1016/j.procir.2019.01.017', (12,)), ('Technologies and Eco-innovation towards Sustainability I: Eco Design of Products and Services', 'Urban Factories: Identifying Products for Production in Cities', '10.1007/978-981-13-1181-9_15', (11,)), ('Lecture Notes in Mechanical Engineering', 'Urban Manufacturing of Sustainable Customer-Oriented Products', '10.1007/978-3-030-18180-2_10', (11,)), ('Results in Control and Optimization', 'Impacts of additive manufacturing to sustainable urban–rural interdependence through strategic control', '10.1016/j.rico.2021.100066', (10,)), ('International Journal of Sustainable Energy Planning and Management', 'How can urban manufacturing contribute to a more sustainable energy system in cities?', '10.5278/ijsepm.3347', (10,)), ('22nd International Conference on Production Research, ICPR 2013', 'Urban production to advance the competitiveness of industrial enterprises', 'NO DOI', (9,)), ('Journal of Maps', 'Demographic sustainability and rural development policy', '10.1080/17445647.2013.773566', (8,)), ('International Journal of Precision Engineering and Manufacturing - Green Technology', 'Towards Sustainable Manufacturing: A Maturity Assessment for Urban Smart Factory', '10.1007/s40684-023-00554-z', (7,))]
10-5	Metabolism	219	2019.12	scaling cities size infrastructure population energy emissions city urban carbon	[('Proceedings of the National Academy of Sciences of the United States of America', 'Growth, innovation, scaling, and the pace of life in cities', '10.1073/pnas.0610172104', (2257,)), ('Science', 'The size, scale, and shape of cities', '10.1126/science.1151419', (1192,)), ('PLoS ONE', 'Urban scaling and its deviations: Revealing the structure of wealth, innovation and crime across cities', '10.1371/journal.pone.0013541', (524,)), ('PLoS ONE', 'Does Size Matter? Scaling of CO Emissions and U.S. Urban Areas', '10.1371/journal.pone.0064727', (276,)), ('Scientific Reports', 'How congestion shapes cities: From mobility patterns to scaling', '10.1038/srep05561', (230,)), ('Environment and Urbanization', 'Population predictions for the world's largest cities in the 21st century', '10.1177/0956247816663557', (181,)), ('BioScience', 'Food Spoilage, Storage, and Transport: Implications for a Sustainable Future', '10.1093/biosci/biv081', (156,)), ('Nature Reviews Physics', 'The statistical physics of cities', '10.1038/s42254-019-0054-2', (153,)), ('Proceedings of the National Academy of Sciences of the United States of America', 'Emerging infectious diseases: A proactive approach', '10.1073/pnas.1701410114', (152,)), ('PLoS ONE', "Limited Urban Growth: London's Street Network Dynamics since the 18th Century", '10.1371/journal.pone.0069469', (113,)), ('Journal of Cleaner Production', 'Infrastructure ecology: an evolving paradigm for sustainable urban development', '10.1016/j.jclepro.2015.09.010', (97,)), ('Ambio', 'An urban approach to planetary boundaries', '10.1007/s13280-016-0764-y', (75,)), ('Royal Society Open Science', 'Uncovering the behaviour of road accidents in urban areas', '10.1098/rsos.191739', (73,)), ('Environment and Planning B: Urban Analytics and City Science', 'The scaling of income distribution in Australia: Possible relationships between urban allometry, city size, and economic inequality', '10.1177/0265813516676488', (65,)), ('Energy Economics', 'Bigger cities better climate? Results from an analysis of urban areas in China', '10.1016/j.eneco.2022.105872', (64,)), ('Environment and Planning B: Urban Analytics and City Science', 'Cities as nuclei of sustainability?', '10.1177/0265813516638340', (61,)), ('Research in Transportation Economics', 'Sustainable urbanization using high speed rail (HSR) in Karnataka, India', '10.1016/j.retrec.2012.05.013', (60,)), ('PLoS ONE', 'The scaling of crime concentration in cities', '10.1371/journal.pone.0183110', (58,)), ('Environment and Planning B: Urban Analytics and City Science', 'Urban infrastructure is not a tree: Integrating and decentralizing urban infrastructure systems', '10.1177/0265813516647063', (56,)), ('Resources, Conservation and Recycling', 'Urban scaling patterns for sustainable development goals related to water, energy, infrastructure, and society in China', '10.1016/j.resconrec.2022.106443', (50,))]
10-6	Metabolism	212	2018.47	carbon emissions household consumption energy lca households ghg footprint building	[('Nature Climate Change', 'Unequal household carbon footprints in China', '10.1038/nclimate3165', (448,)), ('Energy Policy', 'Modeling energy consumption and CO emissions at the urban scale: Methodological challenges and insights from the United States', '10.1016/j.enpol.2009.07.006', (228,)), ('Environmental Research Letters', 'Situated lifestyles: I. How lifestyles change along with the level of urbanization and what the greenhouse gas implications are - A study of Finland', '10.1088/1748-9326/8/2/025003', (171,)), ('Energy', 'Combining life cycle costing and life cycle assessment for an analysis of a new residential district energy system design', '10.1016/j.energy.2013.10.030', (169,)), ('Urban Policy and Research', 'Urban structure and energy-a review', '10.1080/08111140701629886', (168,)), ('Environmental Impact Assessment Review', 'Assessing the urban carbon footprint: An overview', '10.1016/j.eiar.2017.06.005', (155,)), ('Journal of Cleaner Production', 'Application of life cycle thinking towards sustainable cities: A review', '10.1016/j.jclepro.2017.08.030', (136,)), ('Energy and Buildings', 'Residential energy consumption patterns and the overall housing energy requirements of urban and rural households in Finland', '10.1016/j.enbuild.2014.02.079', (135,)), ('Global Sustainability', 'Upscaling urban data science for global climate solutions', '10.1017/sus.2018.16', (110,)), ('Journal of Cleaner Production', 'Analysis of the co-benefits of climate change mitigation and air pollution reduction in China', '10.1016/j.jclepro.2013.07.042', (103,)), ('Natural Hazards', 'Driving forces of indirect carbon emissions from household consumption in China: an input–output decomposition analysis', '10.1007/s11069-014-1114-7', (99,)), ('Sustainability', 'Optimizing urban material flows and waste streams in urban development through principles of zero waste and sustainable consumption', '10.3390/su3010155', (97,)), ('Ecological Economics', 'Food security and sustainable use of natural resources: A 2020 vision', '10.1016/S0921-8009(97)00067-0', (92,)), ('Climatic Change', 'Assessing the consequences of climate change for food and forest resources: A view from the IPCC', '10.1007/s10584-005-5941-0', (89,)), ('Sustainability', 'Critical determinants of household electricity consumption in a rapidly growing city', '10.3390/su13084441', (88,)), ('Environmental Science and Technology', 'Reducing Carbon Footprint Inequality of Household Consumption in Rural Areas: Analysis from Five Representative Provinces in China', '10.1021/acs.est.1c01374', (87,)), ('Journal of Environmental Management', 'A comparative life cycle assessment for sustainable cement production in Turkey', '10.1016/j.jenvman.2019.109362', (80,)), ('Journal of Cleaner Production', 'Emerging technologies and sustainable strategies for municipal solid waste valorization: Challenges of circular economy implementation', '10.1016/j.jclepro.2023.138708', (80,)), ('Advances in biochemical engineering/biotechnology', 'Bioethanol from lignocellulosic biomass', '10.1007/10_2011_129', (80,)), ('Building and Environment', 'Estimating carbon emissions in urban functional zones using multi-source data: A case study in Beijing', '10.1016/j.buildenv.2022.108804', (77,))]

10-11	Metabolism	98	2018.32	ena ascendency energy air water ses network emission vwmn pollution	[('Environment International', 'Ultrafine particles in cities', '10.1016/j.envint.2014.01.013', (565,)), ('Ecological Complexity', 'Quantifying sustainability: Resilience, efficiency and the return of information theory', '10.1016/j.ecocom.2008.10.005', (456,)), ('Applied Energy', 'Urban energy consumption: Different insights from energy flow analysis, input-output analysis and ecological network analysis', '10.1016/j.apenergy.2014.10.055', (265,)), ('Journal of Cleaner Production', 'Changes in water footprint of crop production in Beijing from 1978 to 2012: A logarithmic mean Divisia index decomposition analysis', '10.1016/j.jclepro.2014.08.103', (142,)), ('Renewable and Sustainable Energy Reviews', 'Sustainable expansion of electricity sector: Sustainability indicators as an instrument to support decision making', '10.1016/j.rser.2009.07.033', (116,)), ('Ecological Modelling', 'Bibliometric review of ecological network analysis: 2010–2016', '10.1016/j.ecolmodel.2018.04.020', (107,)), ('Renewable and Sustainable Energy Reviews', 'Life cycle energy, emissions and cost inventory of power generation technologies in Singapore', '10.1016/j.rser.2005.05.004', (103,)), ('Renewable and Sustainable Energy Reviews', 'The potential of waste cooking oil as supply for the Brazilian biodiesel chain', '10.1016/j.rser.2016.11.240', (82,)), ('Journal of Environmental Informatics', 'A stochastic optimization model for carbon-emission reduction investment and sustainable energy planning under cost-risk control', '10.3808/jei.202000428', (78,)), ('Clean Technologies and Environmental Policy', 'Air pollution assessment in urban areas and its impact on human health in the city of Quetta, Pakistan', '10.1007/s10098-009-0209-4', (77,)), ('Journal of Cleaner Production', 'A factorial ecologically-extended input-output model for analyzing urban GHG emissions metabolism system', '10.1016/j.jclepro.2018.07.298', (77,)), ('Ecological Modelling', 'Cities as ecosystems: Growth, development and implications for sustainability', '10.1016/j.ecolmodel.2012.02.022', (76,)), ('Applied Energy', 'Demand-driven air pollutant emissions for a fast-developing region in China', '10.1016/j.apenergy.2017.06.112', (62,)), ('Ecological Indicators', 'Building a systemic environmental monitoring and indicators for sustainability: What has the ecological network approach to offer?', '10.1016/j.ecolind.2011.09.032', (61,)), ('Environmental Science and Technology', "Two-Tier Synergic Governance of Greenhouse Gas Emissions and Air Pollution in China's Megacity, Shenzhen: Impact Evaluation and Policy Implication", '10.1021/acs.est.0c06952', (61,)), ('Transportation Research Part D: Transport and Environment', 'Non-exhaust particle emissions under various driving conditions: Implications for sustainable mobility', '10.1016/j.trd.2020.102290', (59,)), ('Journal of Cleaner Production', 'Metabolism of urban wastewater: Ecological network analysis for Guangdong Province, China', '10.1016/j.jclepro.2019.01.222', (56,)), ('Applied Energy', 'Sustainable Energy Security for India: An assessment of energy demand sub-system', '10.1016/j.apenergy.2016.02.142', (53,)), ('Energy Research and Social Science', 'Defining energy security in the rural North - Historical and contemporary perspectives from Alaska', '10.1016/j.erss.2016.03.014', (50,)), ('Journal of Cleaner Production', 'Analyzing the critical success factor of CSR for the Chinese textile industry', '10.1016/j.jclepro.2020.120878', (48,))]
10-13	Metabolism	82	2018.26	water wf groundwater metabolism wastewater food puebla recharge consumption reuse	[('Current Opinion in Environmental Sustainability', 'General approaches for assessing urban environmental sustainability', '10.1016/j.cosust.2012.09.003', (104,)), ('Journal of Industrial Ecology', 'Urban water mass balance analysis', '10.1111/j.1530-9290.2011.00357.x', (95,)), ('Science of the Total Environment, The', 'Water consumption related to different diets in Mediterranean cities', '10.1016/j.scitotenv.2016.08.111', (84,)), ('Journal of Cleaner Production', 'Comparing a territorial-based and a consumption-based approach to assess the local and global environmental performance of cities', '10.1016/j.jclepro.2016.10.068', (81,)), ('Water Resources Research', 'Direct and indirect urban water footprints of the United States', '10.1002/2016WR019473', (80,)), ('Journal of Cleaner Production', 'Grey water footprint combined with ecological network analysis for assessing regional water quality metabolism', '10.1016/j.jclepro.2015.11.009', (74,)), ('Science of the Total Environment, The', 'Urban food consumption and associated water resources: The example of Dutch cities', '10.1016/j.scitotenv.2016.04.172', (68,)), ('Water Research', 'Urban water metabolism indicators derived from a water mass balance – Bridging the gap between visions and performance assessment of urban water resource management', '10.1016/j.watres.2017.05.060', (63,)), ('IEEE Transactions on Automation Science and Engineering', 'Automated Vision Systems for Condition Assessment of Sewer and Water Pipelines', '10.1109/TASE.2020.3022402', (55,)), ('Cities', 'Connecting land-use and water planning: Prospects for an urban water metabolism approach', '10.1016/j.cities.2016.07.003', (52,)), ('Journal of Political Ecology', 'Water and the political ecology of urban metabolism: The case of Mexico City', '10.2458/v22i1.21080', (50,)), ('Ecological Indicators', 'Food consumption and related water resources in Nordic cities', '10.1016/j.ecolind.2016.11.019', (48,)), ('Sustainable Cities and Society', 'A multi-regional input-output analysis of direct and virtual urban water flows to reduce city water footprints in Australia', '10.1016/j.scs.2021.103236', (48,)), ('Science of the Total Environment, The', 'Water footprints in Beijing, Tianjin and Hebei: A perspective from comparisons between urban and rural consumptions in different regions', '10.1016/j.scitotenv.2018.07.343', (47,)), ('Water Research', 'A metabolism perspective on alternative urban water servicing options using water mass balance', '10.1016/j.watres.2016.10.014', (45,)), ('Environmental Management', 'Water quality in drinking water reservoirs of a Megacity, Istanbul', '10.1007/s002670010119', (43,)), ('Water Research', 'Dynamic metabolism modelling of urban water services - Demonstrating effectiveness as a decision-support tool for Oslo, Norway', '10.1016/j.watres.2014.05.004', (39,)), ('Resources, Conservation and Recycling', 'Evaluating urban water management using a water metabolism framework: A comparative analysis of three regions in Korea', '10.1016/j.resconrec.2019.104597', (37,)), ('Journal of Industrial Ecology', 'Water Footprint of Cereals and Vegetables for the Beijing Market: Comparison between Local and Imported Supplies', '10.1111/jiec.12037', (36,)), ('Journal of Industrial Ecology', 'Evaluation Approaches for Advancing Urban Water Goals', '10.1111/jiec.12456', (35,))]
10-7	Metabolism	211	2017.36	emergy ecological sej resources footprint water renewable beijing resource environmental	[('Energy and Buildings', 'Emergy analysis of building manufacturing, maintenance and use: Em-building indices to evaluate housing sustainability', '10.1016/j.enbuild.2006.10.004', (243,)), ('Agricultural Systems', 'A comparative study of some environmental impacts of conventional and organic farming in Australia', '10.1016/j.agsy.2005.09.007', (173,)), ('Quaternary Research', 'Late second-early first millennium BC abrupt climate changes in coastal Syria and their possible significance for the history of the Eastern Mediterranean', '10.1016/j.yqres.2010.07.010', (132,)), ('Ecological Indicators', 'Sustainable urban electricity supply chain – Indicators of material recovery and energy savings from crystalline silicon photovoltaic panels end-of-life', '10.1016/j.ecolind.2016.03.028', (120,)), ('Renewable and Sustainable Energy Reviews', 'A review of emergy theory, its application and latest developments', '10.1016/j.rser.2015.10.048', (117,)), ('Ecological Indicators', 'An integrated data envelopment analysis and emergy-based ecological footprint methodology in evaluating sustainable development, a case study of Jiangsu Province, China', '10.1016/j.ecolind.2016.05.042', (106,)), ('Science of the Total Environment, The', 'Monitoring trends of urban development and environmental impact of Beijing, 1999-2006', '10.1016/j.scitotenv.2011.05.045', (97,)), ('Ecological Indicators', 'Sustainability evaluation based on the emergy ecological footprint method: A case study of Qingdao, China, from 2004 to 2014', '10.1016/j.ecolind.2017.12.020', (85,)), ('Ecological Modelling', 'Evaluating the environmental impacts of an urban wetland park based on emergy accounting and life cycle assessment: A case study in Beijing', '10.1016/j.ecolmodel.2010.08.028', (84,)), ('Ecological Modelling', 'Emergy-based dynamic mechanisms of urban development, resource consumption and environmental impacts', '10.1016/j.ecolmodel.2013.08.014', (81,)), ('Ecological Indicators', 'Indicators of environmental loading and sustainability of urban systems. An emergy-based environmental footprint', '10.1016/j.ecolind.2017.03.060', (77,)), ('Ecological Indicators', 'Assessing the sustainability of urban eco-systems through Emergy-based circular economy indicators', '10.1016/j.ecolind.2019.105859', (76,)), ('Ecological Engineering', 'Emergy analysis of the Oak Openings region', '10.1016/j.ecoleng.2003.09.007', (75,)), ('Ecological Indicators', 'Carrying capacity using emergy and a new calculation of the ecological footprint', '10.1016/j.ecolind.2015.08.054', (74,)), ('Landscape and Urban Planning', 'An emergy analysis for urban environmental sustainability assessment, the Island of Montreal, Canada', '10.1016/j.landurbplan.2013.06.001', (73,)), ('Communications in Nonlinear Science and Numerical Simulation', 'Comparison of typical mega cities in China using emergy synthesis', '10.1016/j.cnsns.2008.03.018', (73,)), ('Ecological Indicators', 'Ecological security assessment for megacities in the Yangtze River basin: Applying improved emergy-ecological footprint and DEA-SBM model', '10.1016/j.ecolind.2021.108481', (71,)), ('Journal of Cleaner Production', 'Emergy-based ecological footprint analysis for a mega-city: The dynamic changes of Shanghai', '10.1016/j.jclepro.2018.11.064', (71,)), ('Journal of Cleaner Production', 'Measuring regional sustainability with an integrated social-economic-natural approach: A case study of the Yellow River Delta region of China', '10.1016/j.jclepro.2015.05.121', (65,)), ('Scientific Reports', 'Early urban impact on Mediterranean coastal environments', '10.1038/srep03540', (61,))]
10-1	Metabolism	490	2017.16	metabolism metabolic energy flows um urban material cities waste carbon	[('Journal of Industrial Ecology', 'The changing metabolism of cities', '10.1162/jie.2007.1107', (971,)), ('Environmental Pollution', 'The study of urban metabolism and its applications to urban planning and design', '10.1016/j.envpol.2010.10.022', (670,)), ('Landscape and Urban Planning', 'Sustainability and cities: Extending the metabolism model', '10.1016/S0169-2046(99)00009-2', (492,)), ('Landscape and Urban Planning', 'An expanded urban metabolism method: Toward a systems approach for assessing urban energy processes and causes', '10.1016/j.landurbplan.2012.06.006', (283,)), ('Journal of Industrial Ecology', 'Interdisciplinary Perspectives on Urban Metabolism', '10.1111/j.1530-9290.2012.00556.x', (263,)), ('Environmental Science and Technology', 'Network environ perspective for urban metabolism and carbon emissions: A case study of Vienna, Austria', '10.1021/es204662k', (255,)), ('Landscape and Urban Planning', "Materials flow analysis and emergy evaluation of Taipei's urban construction", '10.1016/S0169-2046(02)00152-4', (215,)), ('Local Environment', 'Material flow analysis: A tool to support environmental policy decision making. Case-studies on the city of Vienna and the Swiss lowlands', '10.1080/13549830050134257', (207,)), ('Ambio', 'Escalating trends in the urban metabolism of Hong Kong: 1971-1997', '10.1579/0044-7447-30.7.429', (184,)), ('Journal of Environmental Planning and Management', 'Society, energy and materials: The contribution of urban metabolism studies to sustainable urban development issues', '10.1080/09640561003703772', (181,)), ('Journal of Urban Planning and Development', 'Metabolism of neighborhoods', '10.1061/(ASCE)0733-9488(2008)134:1(21)', (151,)), ('Ecological Modelling', 'Analyses of urban ecosystem based on information entropy', '10.1016/j.ecolmodel.2006.02.032', (147,)), ('Environmental Science and Technology', 'Urban Metabolism: A Review of Current Knowledge and Directions for Future Study', '10.1021/acs.est.5b03060', (141,)), ('Landscape and Urban Planning', 'Sustainable urban metabolism as a link between bio-physical sciences and urban planning: The BRIDGE project', '10.1016/j.landurbplan.2012.12.005', (139,)), ('Resources, Conservation and Recycling', 'Harvesting urban resources towards more resilient cities', '10.1016/j.resconrec.2012.01.014', (138,)), ('Journal of Environmental Management', 'Resource management as a key factor for sustainable urban planning', '10.1016/j.jenvman.2011.05.016', (123,)), ('Resources, Conservation and Recycling', 'Urban fabrics and urban metabolism – from sustainable to regenerative cities', '10.1016/j.resconrec.2017.01.010', (123,)), ('Resources, Conservation and Recycling', 'Urban energy systems within the transition to sustainable development. A research agenda for urban metabolism', '10.1016/j.resconrec.2017.08.004', (117,)), ('Journal of Cleaner Production', 'A review of urban metabolism studies to identify key methodological choices for future harmonization and implementation', '10.1016/j.jclepro.2016.09.014', (111,)), ('Journal of Urban History', 'The metabolism of the industrial city: The case of Pittsburgh', '10.1177/0096144202028005001', (107,))]

10-9	Metabolism	129	2015.77	nr nitrogen phosphorus lijiang xiamen nutrient food flow sewage gg	[('Journal of Cleaner Production', 'Techno-economic analysis of a food waste valorisation process for lactic acid, lactide and poly(lactic acid) production', '10.1016/j.jclepro.2018.01.179', (158,)), ('International Journal of Sustainable Development and World Ecology', 'Rapid urbanisation, ecological effects and sustainable city construction in Xiamen', '10.1080/13504509.2010.493318', (84,)), ('Ageing Research Reviews', 'Aging beijing: Challenges and strategies of health care for the elderly', '10.1016/j.arr.2010.07.001', (83,)), ('International Journal of Sustainable Development and World Ecology', 'The planning, construction, and management toward sustainable cities in China needs the Environmental Internet of Things', '10.1080/13504509.2013.784882', (82,)), ('Nature Communications', 'Aggravation of reactive nitrogen flow driven by human production and consumption in Guangzhou City China', '10.1038/s41467-020-14699-x', (73,)), ('Environmental Pollution', 'Managing urban nutrient biogeochemistry for sustainable urbanization', '10.1016/j.envpol.2014.03.038', (70,)), ('Environmental Science and Technology', 'Phosphorus Flow Patterns in the Chaohu Watershed from 1978 to 2012', '10.1021/acs.est.5b03202', (69,)), ('Forest Policy and Economics', 'Evolving forestry and rural development beliefs at midpoint and close of the 20th century', '10.1016/S1389-9341(01)00034-X', (65,)), ('Environmental Science and Policy', 'Urban phosphorus sustainability: Systemically incorporating social, ecological, and technological factors into phosphorus flow analysis', '10.1016/j.envsci.2014.10.005', (64,)), ('Renewable Energy', 'Feasibility of algal systems for sustainable wastewater treatment', '10.1016/j.renene.2014.07.061', (62,)), ('Ecological Applications', 'Phosphorus in Phoenix: A budget and spatial representation of phosphorus in an urban ecosystem', '10.1890/11-0865.1', (60,)), ('Chemosphere', 'Material flow analysis of phosphorus through food consumption in two megacities in northern China', '10.1016/j.chemosphere.2011.01.050', (57,)), ('Social Sciences', 'Population aging: An emerging research agenda for sustainable development', '10.3390/socsci4040940', (55,)), ('Ecological Applications', 'Anthropogenic modification of the nitrogen cycling within the Greater Hangzhou Area system, China', '10.1890/08-0027.1', (53,)), ('Scientific Research and Essays', 'Bioremediation of polluted wastewater influent: Phosphorus and nitrogen removal', 'NO DOI', (52,)), ('Journal of Cleaner Production', 'Substance flow analysis as a tool for the elucidation of anthropogenic phosphorus metabolism in China', '10.1016/j.jclepro.2012.01.033', (51,)), ('Current Opinion in Environmental Sustainability', 'The links between global carbon, water and nutrient cycles in an urbanizing world - the case of coastal eutrophication', '10.1016/j.cosust.2013.11.004', (49,)), ('Energy', 'Maximizing recovery of energy and nutrients from urban wastewaters', '10.1016/j.energy.2016.03.102', (44,)), ('Science of the Total Environment, The', 'Recent patterns of anthropogenic reactive nitrogen emissions with urbanization in China: Dynamics, major problems, and potential solutions', '10.1016/j.scitotenv.2018.11.352', (41,)), ('Resources, Conservation and Recycling', 'Regional phosphorus flows Berlin-Brandenburg phosphorus flows in Berlin-Brandenburg, a regional flow analysis', '10.1016/j.resconrec.2016.04.008', (40,))]
10-12	Metabolism	83	2015.67	entropy thermodynamic thermodynamics energy city entropic dissipative exergy cities truths	[('Proceedings of the National Academy of Sciences of the United States of America', 'Causal inference in coupled human and natural systems', '10.1073/pnas.1805563115', (198,)), ('China and World Economy', "China's urban and rural old age security system: Challenges and options", '10.1111/j.1749-124X.2006.00001.x', (112,)), ('Landscape and Urban Planning', 'The low-entropy city: A thermodynamic approach to reconnect urban systems with nature', '10.1016/j.landurbplan.2017.10.002', (66,)), ('China and World Economy', "China's pattern of growth: Moving to sustainability and reducing inequality", '10.1111/j.1749-124X.2006.00003.x', (65,)), ('Ecological Economics', 'Using exergy to analyze the sustainability of an urban area', '10.1016/j.ecolecon.2003.08.006', (52,)), ('Sustainability', 'Urban planning for a renewable energy future: Methodological challenges and opportunities from a design perspective', '10.3390/su4061309', (44,)), ('International Journal of Exergy', 'Exergy landscapes: Exploration of second-law thinking towards sustainable landscape design', '10.1504/IJEX.2011.038516', (43,)), ('Solar Energy', 'Thermodynamic parameters for energy sustainability of urban areas', '10.1016/S0038-092X(00)00069-4', (37,)), ('Sustainability', 'Environmental assessment of electrochemical energy storage device manufacturing to identify drivers for attaining goals of sustainable materials 4.0', '10.3390/su12010342', (36,)), ('Studies in Systems, Decision and Control', 'What are cognitive cities?', '10.1007/978-3-319-33798-2_1', (34,)), ('International Journal of Life Cycle Assessment', 'Life cycle assessment of granite application in sidewalks', '10.1007/s11367-012-0391-1', (32,)), ('Cities', 'Beijing: perspectives on preservation, environment, and development', '10.1016/S0264-2751(97)10003-8', (31,)), ('Science of the Total Environment, The', 'Interplay between natural environment, human microbiota and immune system: A scoping review of interventions and future perspectives towards allergy prevention', '10.1016/j.scitotenv.2022.153422', (29,)), ('Sustainable Development', 'Urban environmental performance in China: A sustainability divide?', '10.1002/sd.356', (26,)), ('Procedia Engineering', 'The unsustainable city. Urban entropy and social capital: The needing of a new urban planning', '10.1016/j.proeng.2011.11.2102', (21,)), ('Environment and Urbanization', 'Barriers to achieving the water and sanitation-related Millennium Development Goals in Cancún, Mexico at the beginning of the twenty-first century', '10.1177/0956247807076918', (19,)), ('Agronomy', 'Assessment of Heavy Metal Pollution of Agricultural Soil, Irrigation Water, and Vegetables in and Nearby the Cupriferous City of Lubumbashi, (Democratic Republic of the Congo)', '10.3390/agronomy13020357', (16,)), ('Procedia Engineering', 'Thermodynamic Entropy as an Indicator for Urban Sustainability?', '10.1016/j.proeng.2017.07.131', (16,)), ('International Journal of Ecodynamics', 'Quo vadis thermodynamics and the city: A critical review of applications of thermodynamic methods to urban systems', '10.2495/ECO-V2-N4-222-230', (16,)), ('Technological Forecasting and Social Change', 'Dynamic decision trees for building resilience into future eco-cities', '10.1016/j.techfore.2012.12.010', (16,))]
10-2	Metabolism	405	2014.97	footprint ef ecological water capita land gha carrying capacity cities	[('Environment and Urbanization', 'Ecological footprints and appropriated carrying capacity: What urban economics leaves out', '10.1177/095624789200400212', (2074,)), ('American Sociological Review', 'Footprints on the earth: The environmental consequences of modernity', '10.2307/1519769', (758,)), ('Environmental Impact Assessment Review', 'Urban ecological footprints: Why cities cannot be sustainable - and why they are a key to sustainability', '10.1016/S0195-9255(96)00022-4', (697,)), ('Appetite', "Eating like there's no tomorrow: Public awareness of the environmental impact of food and reluctance to eat less meat as part of a sustainable diet", '10.1016/j.appet.2015.10.011', (433,)), ('Ambio', 'Ecosystem appropriation by cities', 'NO DOI', (416,)), ('Environment and Urbanization', 'The environmental impact of cities', '10.1177/0956247806069599', (215,)), ('Environment and Urbanization', 'The Ecological Footprint of cities and regions: Comparing resource availability with resource demand', '10.1177/0956247806063978', (205,)), ('Ecological Economics', 'Urban form and the ecological footprint of commuting. The case of Barcelona', '10.1016/j.ecolecon.2004.12.008', (195,)), ('Building and Environment', 'Life cycle, sustainability and the transcendent quality of building materials', '10.1016/j.buildenv.2005.11.004', (191,)), ('Cities', 'Assessing the Ecological Footprint and biocapacity of Portuguese cities: Critical results for environmental awareness and local management', '10.1016/j.cities.2019.102442', (164,)), ('Journal of Environmental Management', 'An urban metabolism and ecological footprint assessment of Metro Vancouver', '10.1016/j.jenvman.2013.03.009', (159,)), ('Environmental Science and Policy', 'The Ecological Footprint of Mediterranean cities: Awareness creation and policy implications', '10.1016/j.envsci.2016.12.013', (158,)), ('Frontiers in Ecology and the Environment', 'Global urbanization: Can ecologists identify a sustainable way forward?', '10.1890/070038', (153,)), ('Social Science Research', 'Societies consuming nature: A panel study of the ecological footprints of nations, 1960-2003', '10.1016/j.ssresearch.2010.09.004', (148,)), ('Building Research and Information', 'The built environment and the ecosphere: A global perspective', '10.1080/096132199369336', (138,)), ('Environmental Science and Policy', 'The application of ecological footprint and biocapacity for environmental carrying capacity assessment: A new approach for European cities', '10.1016/j.envsci.2019.12.010', (127,)), ('Ambio', 'Planetary stewardship in an urbanizing world: Beyond city limits', '10.1007/s13280-012-0353-7', (126,)), ('Nature Communications', 'City footprints and SDGs provide untapped potential for assessing city sustainability', '10.1038/s41467-021-23968-2', (117,)), ('Annual Review of Environment and Resources', 'Urban centers: An assessment of sustainability', '10.1146/annurev.energy.28.050302.105541', (115,)), ('Urban Ecology: An International Perspective on the Interaction Between Humans and Nature', 'Urban ecological footprints: Why cities cannot be sustainable-and why they are a key to sustainability', '10.1007/978-0-387-73412-5_35', (111,))]
11-6	Waste	115	2021.62	waste smart bin iot bins garbage collection management blockchain solid	[('WASTES MANAGE.', 'Technologies and decision support systems to aid solid-waste management: a systematic review', '10.1016/j.wasman.2016.10.045', (239,)), ('Journal of Cleaner Production', 'Proposing the use of blockchain to improve the solid waste management in small municipalities', '10.1016/j.jclepro.2019.118529', (179,)), ('Frontiers in Public Health', 'Solid Wastes Provide Breeding Sites, Burrows, and Food for Biological Disease Vectors, and Urban Zoonotic Reservoirs: A Call to Action for Solutions-Based Research', '10.3389/fpubh.2019.00405', (154,)), ('Internet of Things (Netherlands)', 'Smart garbage management system for a sustainable urban life: An IoT based application', '10.1016/j.iot.2020.100255', (95,)), ('IEEE Access', 'IoT-Enabled Smart Waste Management Systems for Smart Cities: A Systematic Review', '10.1109/ACCESS.2022.3188308', (89,)), ('Journal of Cleaner Production', 'Blockchain technology applications in waste management: Overview, challenges and opportunities', '10.1016/j.jclepro.2023.138466', (79,)), ('IEEE Access', 'Optimal route recommendation for waste carrier vehicles for efficient waste collection: A step forward towards sustainable cities', '10.1109/ACCESS.2020.2988173', (76,)), ('WASTES MANAGE.', 'Data-driven analytical framework for waste-dumping behaviour analysis to facilitate policy regulations', '10.1016/j.wasman.2019.12.041', (73,)), ('Resources', 'Waste Management in the Smart City: Current Practices and Future Directions', '10.3390/resources12100115', (65,)), ('Environmental Science and Pollution Research', 'Circular economy strategy and waste management: a bibliometric analysis in its contribution to sustainable development, toward a post-COVID-19 era', '10.1007/s11356-022-18703-3', (62,)), ('Sensors', 'Optimal path planning for selective waste collection in smart cities', '10.3390/s19091973', (54,)), ('2015 International Conference on Advances in Computing, Communications and Informatics, ICACCI 2015', 'Smart WSN-based ubiquitous architecture for smart cities', '10.1109/ICACCI.2015.7275972', (46,)), ('Sustainability', 'Solid Waste Management Scenario in India and Illegal Dump Detection Using Deep Learning: An AI Approach towards the Sustainable Waste Management', '10.3390/su142315896', (41,)), ('Soft Computing', 'Solid waste collection system selection for smart cities based on a type-2 fuzzy multi-criteria decision technique', '10.1007/s00500-018-3232-8', (39,)), ('Case Studies in Chemical and Environmental Engineering', 'Recent advances in utilization of municipal solid waste for production of bioproducts: A bibliometric analysis', '10.1016/j.cscee.2021.100164', (39,)), ('International Conference on Robotics, Electrical and Signal Processing Techniques', 'ConvoWaste: An Automatic Waste Segregation Machine Using Deep Learning', '10.1109/ICREST57604.2023.10070078', (38,)), ('Advanced Organic Waste Management: Sustainable Practices and Approaches', 'Smart waste management practices in smart cities: Current trends and future perspectives', '10.1016/B978-0-323-85792-5.00011-3', (38,)), ('Journal of Environmental Protection and Ecology', 'SMART WASTE MANAGEMENT SYSTEM USING WSN FOR ENHANCED CIRCULAR ECONOMY OF THE SMART CITY', 'NO DOI', (32,)), ('Journal of Environmental Protection and Ecology', 'OPTIMISING WASTE COLLECTION AND RECYCLING IN URBAN AREAS WITH VANET', 'NO DOI', (31,)), ('Journal of Environmental Protection and Ecology', 'EFFICIENT NON-DEGRADABLE WASTE PROCESSING TECHNOLOGIES INTEGRATED WITH MANETS FOR SUSTAINABLE WASTE MANAGEMENT MODELS', 'NO DOI', (31,))]

11-2	Waste	209	2021.49	waste msw solid wte management composting municipal energy generation landfill	[('Egyptian Journal of Petroleum', 'Solid waste issue: Sources, composition, disposal, recycling, and valorization', '10.1016/j.ejpe.2018.07.003', (1175,)), ('Environmental Chemistry Letters', 'Municipal solid waste management and landfilling technologies: a review', '10.1007/s10311-020-01100-y', (756,)), ('International Journal of Environmental Research and Public Health', 'Environmental Sustainability Impacts of Solid Waste Management Practices in the Global South', '10.3390/ijerph191912717', (375,)), ('Renewable and Sustainable Energy Reviews', 'A review on municipal solid waste-to-energy trends in the USA', '10.1016/j.rser.2019.109512', (307,)), ('Current Research in Environmental Sustainability', 'Recent trends in solid waste management status, challenges, and potential for the future Indian cities – A review', '10.1016/j.crsust.2020.100011', (265,)), ('Journal of Environmental Chemical Engineering', 'Municipal solid waste as a sustainable resource for energy production: State-of-the-art review', '10.1016/j.jece.2021.105717', (229,)), ('WASTES MANAGE.', 'Alternative approaches for better municipal solid waste management in Mumbai, India', '10.1016/j.wasman.2005.09.006', (201,)), ('WASTES MANAGE.', 'Municipal solid waste (MSW): Strategies to improve salt affected soil sustainability: A review', '10.1016/j.wasman.2018.11.020', (188,)), ('Chemosphere', 'Current solid waste management strategies and energy recovery in developing countries - State of art review', '10.1016/j.chemosphere.2021.133088', (175,)), ('TRANS. ICHEME PART B: PROCESS SAFETY AND ENVIRONMENTAL PROTECTION', 'Municipal solid waste landfills in lower- and middle-income countries: Environmental impacts, challenges and sustainable management practices', '10.1016/j.psep.2023.04.014', (165,)), ('International Journal of Sustainable Built Environment', 'A review of municipal solid waste environmental standards with a focus on incinerator residues', '10.1016/j.ijsbe.2015.11.002', (162,)), ('Waste Management & Research', 'Application of machine learning algorithms in municipal solid waste management: A mini review', '10.1177/0734242X211033716', (157,)), ('WASTES MANAGE.', 'Urban solid waste management in Chongqing: Challenges and opportunities', '10.1016/j.wasman.2005.09.005', (156,)), ('Environmental Pollution', 'Accumulation of Cr, Pb, Cu, Ni, Zn and Cd in soil following irrigation with treated urban effluent in Australia', '10.1016/S0269-7491(96)00089-9', (150,)), ('Science of the Total Environment, The', 'Anaerobic co-digestion of sewage sludge, food waste and yard waste: Synergistic enhancement on process stability and biogas production', '10.1016/j.scitotenv.2019.135429', (131,)), ('Journal of Cleaner Production', 'A framework for sustainable and integrated municipal solid waste management: Barriers and critical factors to developing countries', '10.1016/j.jclepro.2021.127516', (128,)), ('Journal of Cleaner Production', 'Accelerating sustainability transition in St. Petersburg (Russia) through digitalization-based circular economy in waste recycling industry: A strategy to promote carbon neutrality in era of Industry 4.0', '10.1016/j.jclepro.2022.132452', (115,)), ('Environmental Challenges', 'Environmental waste management strategies and vermi transformation for sustainable development', '10.1016/j.envc.2023.100747', (106,)), ('WASTES MANAGE.', 'Investigating impact of waste reuse on the sustainability of municipal solid waste (MSW) incineration industry using emergy approach: A case study from Sichuan province, China', '10.1016/j.wasman.2018.04.003', (102,)), ('Renewable Energy Focus', 'Reviewing the potential of Waste-to-Energy (WTE) technologies for Sustainable Development Goal (SDG) numbers seven and eleven', '10.1016/j.ref.2018.09.005', (102,))]
11-4	Waste	164	2021.29	cdw construction demolition prefabricated waste concrete building recycling prefabrication industry	[('Construction and Building Materials', 'A critical review and assessment for usage of recycled aggregate as sustainable construction material', '10.1016/j.conbuildmat.2016.11.029', (591,)), ('Journal of Cleaner Production', 'Construction and demolition waste management contributing factors coupled with reduce, reuse, and recycle strategies for effective waste management: A review', '10.1016/j.jclepro.2020.121265', (484,)), ('Building and Environment', 'Life cycle of buildings, demolition and recycling potential: A case study in Turin, Italy', '10.1016/j.buildenv.2008.03.007', (429,)), ('Journal of Cleaner Production', 'Barriers to promoting prefabricated construction in China: A cost–benefit analysis', '10.1016/j.jclepro.2017.10.171', (428,)), ('Journal of Environmental Management', 'Review of construction and demolition waste management in China and USA', '10.1016/j.jenvman.2020.110445', (403,)), ('Construction Management and Economics', 'Sustainable construction aspects of using prefabrication in dense urban environment: A Hong Kong case study', '10.1080/01446190802259043', (335,)), ('Automation in Construction', 'Life cycle design and prefabrication in buildings: A review and case studies in Hong Kong', '10.1016/j.autcon.2013.09.006', (251,)), ('WASTES MANAGE.', 'Construction debris becomes growing concerns of growing cities', '10.1016/j.wasman.2018.10.044', (200,)), ('Resources, Conservation and Recycling', 'Unlocking the green opportunity for prefabricated buildings and construction in China', '10.1016/j.resconrec.2018.08.025', (174,)), ('Engineering, Construction and Architectural Management', "Risk factors affecting practitioners' attitudes toward the implementation of an industrialized building system a case study from China", '10.1108/ECAM-04-2014-0048', (164,)), ('Journal of Cleaner Production', 'Improving the recycling potential of buildings through Material Passports (MP): An Austrian case study', '10.1016/j.jclepro.2019.01.212', (145,)), ('Resources, Conservation and Recycling', 'Evolutionary game analysis of construction waste recycling management in China', '10.1016/j.resconrec.2020.104863', (143,)), ('Journal of Cleaner Production', 'Sustainable management of excavated soil and rock in urban areas - A literature review', '10.1016/j.jclepro.2015.01.010', (142,)), ('Energy and Buildings', 'Assessment of embodied energy and global warming potential of building construction using life cycle analysis approach: Case studies of residential buildings in Iskandar Malaysia', '10.1016/j.enbuild.2014.12.002', (141,)), ('Journal of Cleaner Production', 'An agent based environmental impact assessment of building demolition waste management: Conventional versus green management', '10.1016/j.jclepro.2016.06.054', (127,)), ('Journal of Cleaner Production', 'Precast supply chain management in off-site construction: A critical literature review', '10.1016/j.jclepro.2019.05.229', (122,)), ('Resources, Conservation and Recycling', "Designers' attitude and behaviour towards construction waste minimization by design: A study in Shenzhen, China", '10.1016/j.resconrec.2015.10.009', (115,)), ('Journal of Cleaner Production', 'Material Passports for the end-of-life stage of buildings: Challenges and potentials', '10.1016/j.jclepro.2021.128702', (107,)), ('Waste Management & Research', 'Investigating factors influencing construction waste management efforts in developing countries: An experience from Thailand', '10.1177/0734242X10387012', (101,)), ('Environmental Science and Pollution Research', 'Systematic characterization of generation and management of e-waste in China', '10.1007/s11356-015-5428-0', (92,))]
11-11	Waste	86	2021.15	msw waste wte incineration classification garbage plasma generation solid municipal	[('Food Policy', 'Addressing food waste reduction in Denmark', '10.1016/j.foodpol.2014.09.005', (296,)), ('Renewable and Sustainable Energy Reviews', 'Preferential policies promote municipal solid waste (MSW) to energy in China: Current status and prospects', '10.1016/j.rser.2014.04.049', (184,)), ('Sustainable Cities and Society', 'Public participation and city sustainability: Evidence from Urban Garbage Classification in China', '10.1016/j.scs.2021.102741', (152,)), ('Science of the Total Environment, The', 'Waste generation, wealth and GHG emissions from the waste sector: Is Denmark on the path towards circular economy?', '10.1016/j.scitotenv.2020.142510', (135,)), ('Energy Policy', 'Assessment of waste incineration power with considerations of subsidies and emissions in China', '10.1016/j.enpol.2018.11.025', (110,)), ('Energies', 'Waste-to-energy in China: Key challenges and opportunities', '10.3390/en81212422', (94,)), ('Science of the Total Environment, The', 'Wet wastes to bioenergy and biochar: A critical review with future perspectives', '10.1016/j.scitotenv.2022.152921', (93,)), ('Sustainable Cities and Society', 'Enhancing public acceptance towards waste-to-energy incineration projects: Lessons learned from a case study in China', '10.1016/j.scs.2019.101582', (88,)), ('Journal of Cleaner Production', 'Kalundborg Symbiosis: Fostering progressive innovation in environmental networks', '10.1016/j.jclepro.2016.01.061', (73,)), ('WASTES MANAGE.', 'Is the finer the better for municipal solid waste (MSW) classification in view of recyclable constituents? A comprehensive social, economic and environmental analysis', '10.1016/j.wasman.2018.08.016', (70,)), ('Journal of Cleaner Production', 'Government responses to environmental conflicts in urban China: the case of the Panyu waste incineration power plant in Guangzhou', '10.1016/j.jclepro.2015.10.123', (62,)), ('Sustainable Energy Technologies and Assessments', 'Environmental impact assessment of waste to energy projects in developing countries: General guidelines in the context of Bangladesh', '10.1016/j.seta.2019.100619', (62,)), ('Acta Geographica Sinica', 'Population distribution pattern and influencing factors in Tibet based on random forest model', '10.11821/dlxb201904004', (61,)), ('Resources, Conservation and Recycling', 'A multi-label waste detection model based on transfer learning', '10.1016/j.resconrec.2022.106235', (59,)), ('Energy Policy', 'Prospective application of municipal solid wastes for energy production in Portugal', '10.1016/j.enpol.2014.04.002', (57,)), ('Resources, Conservation and Recycling', 'Assessing the carbon reduction potential of municipal solid waste management transition: Effects of incineration, technology and sorting in Chinese cities', '10.1016/j.resconrec.2022.106713', (55,)), ('WASTES MANAGE.', 'Incinerator bottom ash derived from municipal solid waste as a potential catalytic support for biomass tar reforming', '10.1016/j.wasman.2018.10.035', (51,)), ('WASTES MANAGE.', 'Demand gap analysis of municipal solid waste landfill in Beijing: Based on the municipal solid waste generation', '10.1016/j.wasman.2021.08.007', (51,)), ('Energy', 'Waste to energy plant operation under the influence of market and legislation conditioned changes', '10.1016/j.energy.2017.04.080', (47,)), ('International Journal of Computers and Applications', 'Prediction of municipal solid waste generation in china by multiple linear regression method', '10.2316/Journal.202.2013.3.202-3898', (45,))]
11-18	Waste	54	2021.15	pickers waste informal ce wpos picker dhaka workers solid wtp	[('Environment and Urbanization', 'Waste pickers and cities', '10.1177/0956247816657302', (186,)), ('Resources', 'Waste picker organizations and their contribution to the circular economy: Two case studies from a Global South Perspective', '10.3390/resources6040052', (111,)), ('WASTES MANAGE.', 'Improving urban household solid waste management in developing countries based on the German experience', '10.1016/j.wasman.2020.11.001', (106,)), ('Journal of Cleaner Production', "Urban solid waste management in developing countries from the sustainable supply chain management perspective: A case study of Brazil's largest slum", '10.1016/j.jclepro.2019.06.162', (90,)), ('WASTES MANAGE.', 'Governance tools: Improving the circular economy through the promotion of the economic sustainability of waste picker organizations', '10.1016/j.wasman.2020.01.040', (60,)), ('One Earth', 'Informal Work and Sustainable Cities: From Formalization to Reparation', '10.1016/j.oneear.2020.08.012', (42,)), ('Journal of International Development', 'Experiencing the Everyday of Waste Pickers: A Sustainable Livelihoods and Health Assessment in Dhaka City, Bangladesh', '10.1002/jid.3479', (38,)), ('Scientific Reports', 'Optimization of solid waste collection using RSM approach, and strategies delivering sustainable development goals (SDG's) in Jeddah, Saudi Arabia', '10.1038/s41598-021-96210-0', (36,)), ('Environmental Monitoring and Assessment', 'A contingent valuation approach to evaluating willingness to pay for an improved water pollution management system in Dhaka City, Bangladesh', '10.1007/s10661-019-7595-9', (29,)), ('Heliyon', 'Analysis of informal waste management using system dynamic modelling', '10.1016/j.heliyon.2022.e09993', (29,)), ('Journal of Cleaner Production', 'How sustainable is organic packaging? A design method for recyclability assessment via a social perspective: A case study of Porto Alegre city (Brazil)', '10.1016/j.jclepro.2016.11.016', (26,)), ('Aquaculture', 'How to enhance the sustainability and inclusiveness of smallholder aquaculture production systems in Zambia?', '10.1016/j.aquaculture.2021.737494', (25,)), ('Environment and Planning E: Nature and Space', 'Dirty work in the clean city: An embodied Urban Political Ecology of women informal recyclers' work in the 'clean city'', '10.1177/25148486221102374', (24,)), ('Environment and Urbanization', 'Inclusive recycling movements: a green deep democracy from below', '10.1177/0956247820967621', (21,)), ('PLoS ONE', 'Characteristics, challenges and innovations of waste picker organizations: A comparative perspective between Latin American and East African countries', '10.1371/journal.pone.0265889', (21,)), ('Waste Management & Research', 'Putting solid household waste to sustainable use: A case study in the city of Rio de Janeiro, Brazil', '10.1177/0734242X12462280', (18,)), ('WASTES MANAGE.', 'Transdisciplinary interventions for environmental sustainability', '10.1016/j.wasman.2020.03.043', (18,)), ('The Circular Economy and the Global South: Sustainable Lifestyles and Green Industrial Development', 'The circular economy and the Global South: Sustainable lifestyles and green industrial development', '10.4324/9780429434006', (16,)), ('Water Policy', 'Willingness to pay for improved safe drinking water in a coastal urban area in Bangladesh', '10.2166/wp.2021.031', (16,)), ('Environmental Development', 'Empowering the informal sector in urban waste management: Towards a comprehensive waste management policy for India', '10.1016/j.envdev.2024.100968', (12,))]

11-12	Waste	85	2020.99	concrete cement ash strength materials pervious cementitious mortar construction aggregates	[('Construction and Building Materials', 'Application of agro-waste for sustainable construction materials: A review', '10.1016/j.conbuildmat.2012.09.011', (482,)), ('Construction and Building Materials', 'Supplementary cementitious materials origin from agricultural wastes - A review', '10.1016/j.conbuildmat.2014.10.010', (445,)), ('Journal of Cleaner Production', 'A huge number of artificial waste material can be supplementary cementitious material (SCM) for concrete production – a review part II', '10.1016/j.jclepro.2015.12.115', (403,)), ('Construction and Building Materials', 'A review of microbial precipitation for sustainable construction', '10.1016/j.conbuildmat.2015.04.051', (263,)), ('Construction and Building Materials', 'Agricultural wastes as aggregate in concrete mixtures - A review', '10.1016/j.conbuildmat.2013.11.074', (235,)), ('International Journal of Sustainable Built Environment', 'Concrete using agro-waste as fine aggregate for sustainable built environment – A review', '10.1016/j.ijsbe.2016.06.003', (213,)), ('Materials', 'Production of sustainable construction materials using agro-wastes', '10.3390/ma13020262', (175,)), ('Journal of Cleaner Production', 'A comprehensive review on mechanical and durability properties of cement-based materials containing waste recycled glass', '10.1016/j.jclepro.2018.07.095', (169,)), ('Journal of Environmental Management', 'Nutrients recovery from anaerobic digestate of agro-waste: Techno-economic assessment of full scale applications', '10.1016/j.jenvman.2017.08.026', (164,)), ('Journal of Building Engineering', 'Use of ceramic wastes as aggregates in concrete production: A review', '10.1016/j.jobe.2021.102567', (115,)), ('Construction and Building Materials', 'Effect of coal ash and rice husk ash partial replacement in ordinary Portland cement on pervious concrete', '10.1016/j.conbuildmat.2021.122947', (105,)), ('Sustainability', 'The utilization of agricultural waste as agro-cement in concrete: A review', '10.3390/SU12176971', (104,)), ('Science of the Total Environment, The', 'Trends in mitigation of industrial waste: Global health hazards, environmental implications and waste derived economy for environmental sustainability', '10.1016/j.scitotenv.2021.152357', (102,)), ('Journal of Building Engineering', 'Sustainable use of palm oil fuel ash as a supplementary cementitious material: A comprehensive review', '10.1016/j.jobe.2021.102286', (94,)), ('Resources, Conservation and Recycling', 'Rice-based ash in concrete: A review of past work and potential environmental sustainability', '10.1016/j.resconrec.2019.03.041', (89,)), ('Journal of Cleaner Production', 'Sustainable clean pervious concrete pavement production incorporating palm oil fuel ash as cement replacement', '10.1016/j.jclepro.2017.10.159', (86,)), ('Construction and Building Materials', 'Sustainable incorporation of waste granite dust as partial replacement of sand in autoclave aerated concrete', '10.1016/j.conbuildmat.2020.118878', (78,)), ('Construction and Building Materials', 'Influence of cenospheres and fly ash on the mechanical and durability properties of high-performance cement mortar under different curing regimes', '10.1016/j.conbuildmat.2021.122458', (78,)), ('Sustainable Cities and Society', 'Critical factors for implementing sustainable construction practice in HOPSCA projects: A case study in China', '10.1016/j.scs.2017.11.008', (68,)), ('Journal of Environmental Management', 'Novel recycling of incinerated sewage sludge ash (ISSA) and waste bentonite as ceramsite for Pb-containing wastewater treatment: Performance and mechanism', '10.1016/j.jenvman.2021.112382', (64,))]
11-9	Waste	93	2020.75	food waste fw anmbr collection bangladesh tehran management membrane energy	[('Resources, Conservation and Recycling', 'Drivers of food waste and their implications for sustainable policy development', '10.1016/j.resconrec.2015.11.016', (741,)), ('Journal of Cleaner Production', 'Life cycle assessment of the present and proposed food waste management technologies from environmental and economic impact perspectives', '10.1016/j.jclepro.2016.04.127', (180,)), ('International Journal of Life Cycle Assessment', 'Application of LCSA to used cooking oil waste management', '10.1007/s11367-012-0482-z', (133,)), ('Resources, Conservation and Recycling', 'Determinants of household food waste behavior in Tehran city: A structural model', '10.1016/j.resconrec.2018.12.033', (131,)), ('International Journal of Environmental Research and Public Health', 'Optimization of municipal waste collection routing: Impact of industry 4.0 technologies on environmental awareness and sustainability', '10.3390/ijerph16040634', (114,)), ('Bioresource Technology', 'Methane recovery efficiency in a submerged anaerobic membrane bioreactor (SAnMBR) treating sulphate-rich urban wastewater: Evaluation of methane losses with the effluent', '10.1016/j.biortech.2012.05.019', (112,)), ('Journal of Cleaner Production', 'What is the true value of food waste? A case study of technology integration in urban food waste treatment in Suzhou City, China', '10.1016/j.jclepro.2015.12.087', (103,)), ('Sustainable Production and Consumption', 'Sustainable food waste management model for Bangladesh', '10.1016/j.spc.2020.10.022', (102,)), ('Journal of Environmental Management', 'Economic and environmental sustainability of submerged anaerobic MBR-based (AnMBR-based) technology as compared to aerobic-based technologies for moderate-/high-loaded urban wastewater treatment', '10.1016/j.jenvman.2015.10.004', (96,)), ('Water Research', '"Food waste-wastewater-energy/resource" nexus: Integrating food waste management with wastewater treatment towards urban sustainability', '10.1016/j.watres.2022.118089', (91,)), ('Renewable and Sustainable Energy Reviews', 'Renewable energy: Prospects and trends in Bangladesh', '10.1016/j.rser.2016.11.197', (84,)), ('Journal of Cleaner Production', 'Can intelligent collection integrate informal sector for urban resource recycling in China?', '10.1016/j.jclepro.2018.10.155', (80,)), ('Journal of Cleaner Production', 'Model development of sustainability assessment from a life cycle perspective: A case study on waste management systems in China', '10.1016/j.jclepro.2018.11.074', (78,)), ('Resources, Conservation and Recycling', 'Towards sustainable WEEE collection and transportation methods in circular economy - Comparative study for rural and urban settlements', '10.1016/j.resconrec.2017.12.016', (70,)), ('Sustainability', 'Student's Knowledge, Attitude, and Perception (KAP) to Solid Waste Management: A Survey towards a More Circular Economy from a Rural-Based Tertiary Institution in South Africa', '10.3390/su14031310', (65,)), ('Journal of Cleaner Production', 'The environmental impacts of alternative food waste treatment technologies in the U.S.', '10.1016/j.jclepro.2017.04.169', (58,)), ('Renewable and Sustainable Energy Reviews', 'Prospect and advancement of solar irrigation in Bangladesh: A review', '10.1016/j.rser.2017.04.052', (54,)), ('Journal of Environmental Management', 'Economic and environmental sustainability of an AnMBR treating urban wastewater and organic fraction of municipal solid waste', '10.1016/j.jenvman.2016.04.057', (50,)), ('Renewable and Sustainable Energy Reviews', 'Renewable energy generation from livestock waste for a sustainable circular economy in Bangladesh', '10.1016/j.rser.2020.110695', (49,)), ('Sustainability', 'Pet food as the most concrete strategy for using food waste as feedstuffwithin the European context: A feasibility study', '10.3390/su10062035', (48,))]
11-3	Waste	165	2020.67	mining weee metals waste electronic recycling rees recovery metal circular	[('Separation and Purification Technology', 'Recovery and recycling of lithium: A review', '10.1016/j.seppur.2016.08.031', (1435,)), ('WASTES MANAGE.', 'Recovery of metals and nonmetals from electronic waste by physical and chemical recycling processes', '10.1016/j.wasman.2016.08.004', (686,)), ('WASTES MANAGE.', 'Global E-waste management: Can WEEE make a difference? A review of e-waste trends, legislation, contemporary issues and future challenges', '10.1016/j.wasman.2020.10.016', (356,)), ('Waste Management & Research', 'Electrical and electronic waste: A global environmental problem', '10.1177/0734242X07076941', (314,)), ('Journal of Hazardous Materials', 'WEEE recovery strategies and the WEEE treatment status in China', '10.1016/j.jhazmat.2006.04.060', (299,)), ('Hydrometallurgy', 'Reclaiming rare earth elements from end-of-life products: A review of the perspectives for urban mining using hydrometallurgical unit operations', '10.1016/j.hydromet.2015.06.007', (270,)), ('Chemosphere', 'Industrial wastewater treatment: Current trends, bottlenecks, and best practices', '10.1016/j.chemosphere.2021.131245', (263,)), ('Journal of Sustainable Metallurgy', 'Solvometallurgy: An Emerging Branch of Extractive Metallurgy', '10.1007/s40831-017-0128-2', (263,)), ('Chemical Society Reviews', 'Challenges to achievement of metal sustainability in our high-tech society', '10.1039/c3cs60440c', (234,)), ('Journal of Cleaner Production', 'E-waste in India at a glance: Current trends, regulations, challenges and management strategies', '10.1016/j.jclepro.2020.122707', (231,)), ('Sustainability', 'A Review on Global E-Waste Management: Urban Mining towards a Sustainable Future and Circular Economy', '10.3390/su14020647', (196,)), ('Journal of Materials Chemistry A', 'Converting real-world mixed waste plastics into porous carbon nanosheets with excellent performance in the adsorption of an organic dye from wastewater', '10.1039/c4ta05118a', (175,)), ('Resources, Conservation and Recycling', 'Rare earth metals from secondary sources: Review of potential supply from waste and byproducts', '10.1016/j.resconrec.2020.105213', (162,)), ('Journal of Environmental Chemical Engineering', 'Novel technologies and conventional processes for recovery of metals from waste electrical and electronic equipment: Challenges & opportunities – A review', '10.1016/j.jece.2018.01.032', (160,)), ('Journal of Cleaner Production', 'Challenges for sustainable lithium supply: A critical review', '10.1016/j.jclepro.2021.126954', (159,)), ('Frontiers of Environmental Science and Engineering', 'Recovery of rare and precious metals from urban mines—A review', '10.1007/s11783-017-0963-1', (151,)), ('Progress in Materials Science', 'Metal recovery by microbial electro-metallurgy', '10.1016/j.pmatsci.2018.01.007', (144,)), ('Resources Policy', 'Sustainability and the circular economy: A theoretical approach focused on e-waste urban mining', '10.1016/j.resourpol.2019.101467', (142,)), ('Science of the Total Environment, The', 'A comprehensive review on integrative approach for sustainable management of plastic waste and its associated externalities', '10.1016/j.scitotenv.2022.153973', (140,)), ('New Biotechnology', 'Biotechnologies for critical raw material recovery from primary and secondary sources: R&D priorities and future perspectives', '10.1016/j.nbt.2013.08.004', (136,))]
11-15	Waste	79	2020.63	waste india solid swm management segregation msw indian composting plastic	[('Royal Society Open Science', 'Challenges and opportunities associated with waste management in India', '10.1098/rsos.160764', (494,)), ('Journal of Cleaner Production', 'Composting as sustainable strategy for municipal solid waste management in the Chimborazo Region, Ecuador: Suitability of the obtained composts for seedling production', '10.1016/j.jclepro.2016.09.178', (144,)), ('WASTES MANAGE.', 'Economic incentive and social influence to overcome household waste separation dilemma: A field intervention study', '10.1016/j.wasman.2018.04.048', (132,)), ('Clean Technologies and Environmental Policy', 'Steps toward a resilient circular economy in India', '10.1007/s10098-020-01982-0', (87,)), ('Biocatalysis and Agricultural Biotechnology', 'An overview of carcinogenic pollutants in groundwater of India', '10.1016/j.bcab.2019.101288', (68,)), ('Indian Journal of Occupational and Environmental Medicine', 'Occupational health hazards related to informal recycling of E-waste in India: An overview', '10.4103/0019-5278.157013', (65,)), ('International Journal of Pavement Research and Technology', 'A study on the suitability of solid waste materials in pavement construction: A review', '10.1007/s42947-020-0273-z', (57,)), ('Chemosphere', 'Unravelling the emerging carcinogenic contaminants from industrial waste water for prospective remediation by electrocoagulation – A review', '10.1016/j.chemosphere.2022.136017', (57,)), ('Journal of Urban Management', 'Pathways to sustainable waste management in Indian Smart Cities', '10.1016/j.jum.2021.05.002', (55,)), ('Current Developments in Biotechnology and Bioengineering: Waste Treatment Processes for Energy Generation', 'Waste-to-energy model/tool presentation', '10.1016/B978-0-444-64083-3.00012-9', (51,)), ('International Journal of Renewable Energy Research', 'Sustainable waste management through waste to energy technologies in India-opportunities and environmental impacts', 'NO DOI', (48,)), ('Frontiers in Energy Research', 'Solid Waste Management in Indian Himalayan Region: Current Scenario, Resource Recovery, and Way Forward for Sustainable Development', '10.3389/fenrg.2021.609229', (48,)), ('Resources, Conservation and Recycling', 'Underreporting and open burning – the two largest challenges for sustainable waste management in India', '10.1016/j.resconrec.2021.105865', (45,)), ('Journal of Material Cycles and Waste Management', 'Integrated approach to solid waste management in Chennai: An Indian metro city', '10.1007/s10163-012-0046-0', (42,)), ('Environment and Urbanization', 'Solid waste management and sustainable cities in India: the case of Chandigarh', '10.1177/0956247815581747', (30,)), ('Heliyon', 'Assessment of landfill gases by LandGEM and energy recovery potential from municipal solid waste of Kanpur city, India', '10.1016/j.heliyon.2023.e15187', (29,)), ('Journal of Material Cycles and Waste Management', 'Evaluation of compositional characteristics of organic waste shares in municipal solid waste in fast-growing metropolitan cities of India', '10.1007/s10163-018-0757-y', (29,)), ('Water, Air, and Soil Pollution', 'Enhancement of Methane Production from Vegetable, Fruit and Flower Market Wastes Using Extrusion as Pretreatment and Kinetic Modeling', '10.1007/s11270-020-04469-2', (26,)), ('Organic Waste Composting through Nexus Thinking: Practices, Policies, and Trends', 'Organic Waste Composting through Nexus Thinking: Practices, Policies, and Trends', '10.1007/978-3-030-36283-6', (25,)), ('Journal of Material Cycles and Waste Management', 'Variations in generation of vegetable, fruit and flower market waste and effects on biogas production, exergy and energy contents', '10.1007/s10163-019-00828-2', (25,))]

11-14	Waste	79	2020.48	landfill criteria sites suitable selection waste wind suitability site gis	[('WASTES MANAGE.', 'GIS-based approach for optimized siting of municipal solid waste landfill', '10.1016/j.wasman.2007.09.032', (375,)), ('Journal of Cleaner Production', 'Sustainable landfill site selection for municipal solid waste based on a hybrid decision-making approach: Fuzzy group BWM-MULTIMOORA-GIS', '10.1016/j.jclepro.2019.119186', (223,)), ('Renewable Energy', 'Wind farm land suitability indexing using multi-criteria analysis', '10.1016/j.renene.2012.01.004', (175,)), ('Sustainability', 'Sustainable assessment of alternative sites for the construction of a waste incineration plant by applying WASPAS method with single-valued neutrosophic set', '10.3390/su71215792', (170,)), ('WASTES MANAGE.', 'LCA-IWM: A decision support tool for sustainability assessment of waste management systems', '10.1016/j.wasman.2007.02.022', (157,)), ('Sustainable Cities and Society', 'Landfill location selection for healthcare waste of urban areas using hybrid BWM-grey MARCOS model based on GIS', '10.1016/j.scs.2021.102712', (157,)), ('Environmental Engineering and Management Journal', 'Life cycle assessment of waste management and recycled paper systems', '10.30638/eemj.2014.230', (62,)), ('Environmental Monitoring and Assessment', 'Geospatial strategy for sustainable management of municipal solid waste for growing urban environment', '10.1007/s10661-011-2127-2', (61,)), ('Sustainable Energy Technologies and Assessments', 'Land suitability assessment for wind farms through best-worst method and GIS in Balıkesir province of Turkey', '10.1016/j.seta.2021.101491', (55,)), ('Operational Research in Engineering Sciences: Theory and Applications', 'MEASURING SUSTAINABILITY PERFORMANCE INDICATORS USING FUCOM-MARCOS METHODS', '10.31181/oresta040722060b', (52,)), ('Applied Intelligence', 'A Cluster-based Stratified Hybrid Decision Support Model under Uncertainty: Sustainable Healthcare Landfill Location Selection', '10.1007/s10489-022-03335-4', (51,)), ('International Journal of Environmental Research and Public Health', 'Combining AHP-entropy approach with GIS for construction waste landfill selection—A case study of Shenzhen', '10.3390/ijerph15102254', (50,)), ('Environmental Engineering and Management Journal', 'Municipal solid waste management in developing countries: A perspective on Vietnam', '10.30638/eemj.2008.070', (40,)), ('Buildings', 'Identifying and Ranking Landfill Sites for Municipal Solid Waste Management: An Integrated Remote Sensing and GIS Approach', '10.3390/buildings12050605', (40,)), ('Environmental Science and Pollution Research', 'A GIS-based novel approach for suitable sanitary landfill site selection using integrated fuzzy analytic hierarchy process and machine learning algorithms', '10.1007/s11356-021-17961-x', (39,)), ('Annals of Operations Research', 'Locating a disinfection facility for hazardous healthcare waste in the COVID-19 era: a novel approach based on Fermatean fuzzy ITARA-MARCOS and random forest recursive feature elimination algorithm', '10.1007/s10479-022-04822-0', (38,)), ('Environmental Challenges', 'Optimal landfill site selection using ArcGIS Multi-Criteria Decision-Making (MCDM) and Analytic Hierarchy Process (AHP) for Kinshasa City', '10.1016/j.envc.2023.100826', (37,)), ('Applied Soft Computing', 'Sustainable resilient recycling partner selection for urban waste management: Consolidating perspectives of decision-makers and experts', '10.1016/j.asoc.2023.110120', (36,)), ('Annals of GIS', 'Mcda-gis integrated approach for optimized landfill site selection for growing urban regions: An application of neighborhood-proximity analysis', '10.1080/19475683.2011.558021', (36,)), ('The Lancet Planetary Health', 'Exposure to waste sites and their impact on health: a panel and geospatial analysis of nationally representative data from South Africa, 2008–2015', '10.1016/S2542-5196(20)30101-7', (35,))]
11-7	Waste	114	2020.28	biorefinery waste hydrogen bioeconomy biowaste biomass bioenergy energy circular organic	[('International Journal of Hydrogen Energy', 'Potential importance of hydrogen as a future solution to environmental and transportation problems', '10.1016/j.ijhydene.2008.05.047', (1259,)), ('Bioresource Technology', 'Waste biorefinery models towards sustainable circular bioeconomy: Critical review and future perspectives', '10.1016/j.biortech.2016.03.130', (693,)), ('npj Climate and Atmospheric Science', 'Biomass waste utilisation in low-carbon products: harnessing a major potential resource', '10.1038/s41612-019-0093-5', (466,)), ('Marine Drugs', 'Fish Waste: From Problem to Valuable Resource', '10.3390/MD19020116', (342,)), ('Bioresource Technology', 'Microbial strategies for bio-transforming food waste into resources', '10.1016/j.biortech.2019.122580', (338,)), ('WASTES MANAGE.', 'Treatment and disposal of tyres: Two EU approaches. A review', '10.1016/j.wasman.2015.04.018', (284,)), ('Renewable and Sustainable Energy Reviews', 'Sustainable development of road transportation sector using hydrogen energy system', '10.1016/j.rser.2015.07.030', (262,)), ('Bioresource Technology', 'Renewable hydrogen production by dark-fermentation: Current status, challenges and perspectives', '10.1016/j.biortech.2020.124354', (229,)), ('Bioresource Technology Reports', 'Can circular bioeconomy be fueled by waste biorefineries — A closer look', '10.1016/j.biteb.2019.100277', (210,)), ('Renewable and Sustainable Energy Reviews', 'Environmental life cycle assessment of different biorefinery platforms valorizing municipal solid waste to bioenergy, microbial protein, lactic and succinic acid', '10.1016/j.rser.2019.109493', (183,)), ('Applied Energy', 'Comparison between hydrogen and electric vehicles by life cycle assessment: A case study in Tuscany, Italy', '10.1016/j.apenergy.2012.03.021', (163,)), ('Applied Energy', 'Organic waste to biohydrogen: A critical review from technological development and environmental impact analysis perspective', '10.1016/j.apenergy.2019.113961', (154,)), ('Renewable and Sustainable Energy Reviews', 'Role of bioenergy, biorefinery and bioeconomy in sustainable development: Strategic pathways for Malaysia', '10.1016/j.rser.2017.06.007', (153,)), ('Chemical Society Reviews', 'Upgrading of marine (fish and crustaceans) biowaste for high added-value molecules and bio(nano)-materials', '10.1039/c9cs00653b', (145,)), ('Environmental Pollution', 'Sustainable utilization of biowaste compost for renewable energy and soil amendments', '10.1016/j.envpol.2020.115662', (135,)), ('Bioresource Technology', 'Bioconversion of organic wastes into value-added products: A review', '10.1016/j.biortech.2021.126398', (123,)), ('Industrial Crops and Products', 'Organic solid waste biorefinery: Sustainable strategy for emerging circular bioeconomy in China', '10.1016/j.indcrop.2020.112568', (121,)), ('Bioresource Technology', 'Sustainability metrics of pretreatment processes in a waste derived lignocellulosic biomass biorefinery', '10.1016/j.biortech.2019.122558', (119,)), ('Acta Innovations', 'The role of biorefinering research in the development of a modern bioeconomy', '10.32933/ActaInnovations.37.4', (118,)), ('Science of the Total Environment, The', 'Biodegradable and non-biodegradable fraction of municipal solid waste for multifaceted applications through a closed loop integrated refinery platform: Paving a path towards circular economy', '10.1016/j.scitotenv.2020.138049', (115,))]
11-19	Waste	52	2020.10	timber wood wmc wooden construction buildings building clt storey housing	[('Sustainable Cities and Society', 'Low carbon construction systems using prefabricated engineered solid wood panels for urban infill to significantly reduce greenhouse gas emissions', '10.1016/j.scs.2012.08.004', (124,)), ('European Journal of Environmental and Civil Engineering', 'Combining seismic retrofit with energy refurbishment for the sustainable renovation of RC buildings: a proof of concept', '10.1080/19648189.2017.1363665', (108,)), ('Journal of Constructional Steel Research', 'Exploration of the multidirectional stability and response of prefabricated volumetric modular steel structures', '10.1016/j.jcsr.2021.106826', (92,)), ('Sustainability', 'Sustainable construction for urban infill development using engineered massive wood panel systems', '10.3390/su4102707', (68,)), ('Canadian Journal of Forest Research', 'Building material preferences with a focus on wood in urban housing: Durability and environmental impacts', '10.1139/cjfr-2015-0123', (68,)), ('Sustainability', 'Energy, seismic, and architectural renovation of RC framed buildings with prefabricated timber panels', '10.3390/SU12124845', (63,)), ('Sustainable Cities and Society', 'Investigation approaches to quantify wind-induced load and response of tall buildings: A review', '10.1016/j.scs.2020.102376', (52,)), ('Journal of Cleaner Production', 'Urban Equilibrium for sustainable cities and the contribution of timber buildings to balance urban carbon emissions: A New Zealand case study', '10.1016/j.jclepro.2016.12.020', (51,)), ('Construction Management and Economics', 'Internal and external factors of competitiveness shaping the future of wooden multistory construction in Finland and Sweden', '10.1080/01446193.2018.1513162', (48,)), ('International Journal of Consumer Studies', 'A home made of wood: Consumer experiences of wooden building materials', '10.1111/ijcs.12586', (46,)), ('Journal of Cleaner Production', 'Bringing ecosystem thinking to sustainability-driven wooden construction business', '10.1016/j.jclepro.2021.126029', (39,)), ('Journal of Engineering, Design and Technology', 'Sustainable construction in the Nigerian construction industry: unsustainable practices, barriers and strategies', '10.1108/JEDT-11-2021-0639', (35,)), ('Silva Fennica', 'Consumer housing values and prejudices against living in wooden homes in the nordic region', '10.14214/sf.10503', (29,)), ('Applied Sciences (Switzerland)', 'State-of-the-Art on Technological Developments and Adaptability of Prefabricated Industrial Steel Buildings', '10.3390/app13020685', (28,)), ('Journal of Green Building', 'Multi-storey residential timber construction: Current developments in Europe', '10.3992/jgb.2.1.119', (27,)), ('Wood Material Science and Engineering', 'Collaboration and shared logic for creating value-added in three Finnish wooden multi-storey building projects', '10.1080/17480272.2019.1653365', (25,)), ('Sustainability', 'Main design considerations and prospects of contemporary tall timber apartment buildings: Views of key professionals from finland', '10.3390/su13126593', (25,)), ('Construction Management and Economics', 'The role of municipalities in transformation towards more sustainable construction: the case of wood construction in Finland', '10.1080/01446193.2022.2037145', (22,)), ('Frontiers in Built Environment', 'Performance-Based Design of Tall Timber Buildings Under Earthquake and Wind Multi-Hazard Loads: Past, Present, and Future', '10.3389/fbuil.2022.848698', (18,)), ('BioProducts Business', 'Effects of Lobbying Among Urban Planners in Finland – Views on Multi-Storey Wooden Building', '10.22382/bpb-2019-007', (18,))]
11-5	Waste	141	2019.84	waste solid collection msw optimization municipal mswm management routing energy	[('WASTES MANAGE.', 'Optimal planning for the sustainable utilization of municipal solid waste', '10.1016/j.wasman.2013.08.010', (171,)), ('WASTES MANAGE.', 'An environmentally sustainable decision model for urban solid waste management', '10.1016/S0956-053X(03)00126-0', (154,)), ('Journal of Industrial Information Integration', 'Sustainable vehicle routing problem for coordinated solid waste management', '10.1016/j.jii.2021.100220', (151,)), ('Journal of Cleaner Production', 'Solid waste collection optimization objectives, constraints, modeling approaches, and their challenges toward achieving sustainable development goals', '10.1016/j.jclepro.2020.123557', (118,)), ('Journal of Cleaner Production', 'Landfill area estimation based on solid waste collection prediction using ANN model and final waste disposal options', '10.1016/j.jclepro.2020.120387', (104,)), ('Journal of Cleaner Production', 'Multi-period sustainable and integrated recycling network for municipal solid waste – A case study in Tehran', '10.1016/j.jclepro.2017.03.030', (104,)), ('Sustainable Cities and Society', 'Sustainable waste management policy in Bangladesh for reduction of greenhouse gases', '10.1016/j.scs.2017.05.008', (104,)), ('Soft Computing', 'An innovative waste management system in a smart city under stochastic optimization using vehicle routing problem', '10.1007/s00500-021-05669-6', (101,)), ('Sustainable Cities and Society', 'Sustainable collection and transportation of municipal solid waste in urban centers', '10.1016/j.scs.2019.101937', (95,)), ('Science of the Total Environment, The', 'A facility location model for municipal solid waste management system under uncertain environment', '10.1016/j.scitotenv.2017.02.207', (93,)), ('Sustainable Cities and Society', 'Solid waste collection/transport optimization and vegetation land cover estimation using Geographic Information System (GIS): A case study of a proposed smart-city', '10.1016/j.scs.2017.08.023', (81,)), ('WASTES MANAGE.', 'Minimax regret optimization analysis for a regional solid waste management system', '10.1016/j.wasman.2006.05.002', (73,)), ('Energy Conversion and Management', 'Constructing a smart framework for supplying the biogas energy in green buildings using an integration of response surface methodology, artificial intelligence and petri net modelling', '10.1016/j.enconman.2021.114794', (71,)), ('WASTES MANAGE.', 'Future improvements on performance of an EU landfill directive driven municipal solid waste management for a city in England', '10.1016/j.wasman.2019.11.009', (71,)), ('Renewable and Sustainable Energy Reviews', 'Integrated decision-support methodology for combined centralized-decentralized waste-to-energy management systems design', '10.1016/j.rser.2018.12.020', (67,)), ('Sustainable Cities and Society', 'Environmental and economic assessment of sustainable municipal solid waste management strategies in Iran', '10.1016/j.scs.2020.102161', (65,)), ('Journal of Industrial and Engineering Chemistry', 'Bio-recovery of municipal plastic waste management based on an integrated decision-making framework', '10.1016/j.jiec.2022.01.002', (65,)), ('Sustainable Cities and Society', 'Life cycle environmental and energy impact assessment of sustainable urban municipal solid waste collection and transportation strategies', '10.1016/j.scs.2020.102339', (61,)), ('Sustainable Cities and Society', 'Optimisation of sustainable urban recycling waste collection and routing with heterogeneous electric vehicles', '10.1016/j.scs.2022.103785', (60,)), ('Sustainable Cities and Society', 'A method of landfill leachate management using internet of things for sustainable smart city development', '10.1016/j.scs.2020.102521', (51,))]

11-17	Waste	54	2019.56	energy electricity access biomass poverty carbonation ghana cooking waste ethiopia	[('Renewable and Sustainable Energy Reviews', 'A comprehensive review of biomass resources and biofuels potential in Ghana', '10.1016/j.rser.2010.09.033', (246,)), ('Habitat International', 'Stakeholder participation for sustainable waste management', '10.1016/j.habitatint.2005.09.009', (184,)), ('Sustainable Energy Technologies and Assessments', "Energy poverty in energy rich Ghana: A SWOT analytical approach for the development of Ghana's renewable energy", '10.1016/j.seta.2020.100760', (111,)), ('Renewable and Sustainable Energy Reviews', 'Towards a sustainable electrification in Ghana: A review of renewable energy deployment policies', '10.1016/j.rser.2017.05.090', (108,)), ('Renewable and Sustainable Energy Reviews', 'A review of trends, policies and plans for increasing energy access in Ghana', '10.1016/j.rser.2011.07.041', (100,)), ('Renewable and Sustainable Energy Reviews', 'Sustainable energy policies in Cameroon: A holistic overview', '10.1016/j.rser.2017.10.049', (68,)), ('Resources, Environment and Sustainability', 'Unlocking climate finance potential and policy barriers—A case of renewable energy and energy efficiency in Sub-Saharan Africa', '10.1016/j.resenv.2021.100043', (68,)), ('Renewable and Sustainable Energy Reviews', 'Expanding sustenance in Ethiopia based on renewable energy resources – A comprehensive review', '10.1016/j.rser.2016.11.082', (60,)), ('Wiley Interdisciplinary Reviews: Energy and Environment', 'Electricity (in)accessibility to the urban poor in developing countries', '10.1002/wene.148', (58,)), ('Energies', 'Energy poverty in China: A dynamic analysis based on a hybrid panel data decision model', '10.3390/en10121942', (47,)), ('Energies', 'Impacts of electricity outages in urban households in developing countries: A case of accra, ghana', '10.3390/en14123676', (45,)), ('Energy for Sustainable Development', 'A case study of the ethanol CleanCook stove intervention and potential scale-up in Ethiopia', '10.1016/j.esd.2018.06.009', (42,)), ('Frontiers in Sustainable Food Systems', 'From Agroforestry to Agroindustry: Smallholder Access to Benefits From Oil Palm in Ghana and the Implications for Sustainability Certification', '10.3389/fsufs.2020.00029', (42,)), ('Environment, Development and Sustainability', 'Bibliometric analysis of sustainability papers: Evidence from Environment, Development and sustainability', '10.1007/s10668-023-03067-6', (40,)), ('Waste Management & Research', 'The role of non-governmental organizations in residential solid waste management: A case study of Puducherry, a coastal city of India', '10.1177/0734242X14544353', (28,)), ('Environmental Science and Pollution Research', 'Assessing the role of sustainable strategies in alleviating energy poverty: an environmental sustainability paradigm', '10.1007/s11356-023-27076-0', (28,)), ('Environmental Innovation and Societal Transitions', 'Unpacking landscape pressures on socio-technical regimes: Insights on the urban waste management system', '10.1016/j.eist.2015.10.005', (26,)), ('Frontiers in Sustainable Cities', 'Pathways for Sustainable Urban Waste Management and Reduced Environmental Health Risks in India: Winners, Losers, and Alternatives to Waste to Energy in Delhi', '10.3389/frsc.2020.00014', (23,)), ('Environment, Development and Sustainability', 'The carbon emissions level of China's service industry: an analysis of characteristics and influencing factors', '10.1007/s10668-021-02001-y', (23,)), ('Environment, Development and Sustainability', 'Collaborative process design for waste management: co-constructing strategies with stakeholders', '10.1007/s10668-021-01822-1', (19,))]
11-10	Waste	87	2019.55	waste indicators solid municipalities toys wood são brazil paulo management	[('Waste Management & Research', 'Progress and challenges to the global waste management system', '10.1177/0734242X14537868', (136,)), ('Estudos Avancados', 'Gestão de resíduos sólidos em São Paulo: desafios da sustentabilidade', '10.1590/S0103-40142011000100010', (120,)), ('Resources, Conservation and Recycling', 'Barriers to waste recycling development: Evidence from Brazil', '10.1016/j.resconrec.2018.03.007', (82,)), ('Ciencia e Saude Coletiva', 'Solid urban waste: Socio-environmental impacts and prospects for sustainable management with social inclusion', '10.1590/S1413-81232012000600014', (77,)), ('Applied Energy', 'Refuse recovered biomass fuel from municipal solid waste. A life cycle assessment', '10.1016/j.apenergy.2016.05.058', (58,)), ('WASTES MANAGE.', 'Life Cycle Assessment of prospective MSW management based on integrated management planning in Campo Grande, Brazil', '10.1016/j.wasman.2019.04.035', (48,)), ('Journal of Cleaner Production', 'Sustainability indicators for urban solid waste management in large and medium-sized worldwide cities', '10.1016/j.jclepro.2019.117802', (47,)), ('Journal of Cleaner Production', 'Perception and awareness of circular economy options within sectors related to agriculture in Argentina', '10.1016/j.jclepro.2022.133805', (43,)), ('Engenharia Sanitaria e Ambiental', 'Matrix of sustainability indicatorsfor the urban solid waste management', '10.1590/S1413-41522012000200010', (41,)), ('Journal of Material Cycles and Waste Management', 'An overview of municipal solid waste management in Inner Mongolia Autonomous Region, China', '10.1007/s10163-011-0024-y', (36,)), ('Energy Reports', 'Evolution on the solid urban waste management in Brazil: A portrait of the Northeast Region', '10.1016/j.egyr.2019.11.033', (35,)), ('Resources, Conservation and Recycling', 'A general methodology for calculating the MSW management self-sufficiency indicator: Application to the wider Barcelona area', '10.1016/j.resconrec.2009.09.004', (34,)), ('Journal of Material Cycles and Waste Management', 'A progress indicator-based assessment guide for integrated municipal solid-waste management systems', '10.1007/s10163-017-0647-8', (31,)), ('Journal of Environmental Chemical Engineering', 'Valorisation of solid waste as key opportunity for green city development in the growing urban areas of the developing world', '10.1016/j.jece.2018.11.023', (29,)), ('Resources, Conservation and Recycling', 'Status of urban wood-waste and their potential use for sustainable bioenergy use in Mississippi', '10.1016/j.resconrec.2015.06.010', (28,)), ('E3S Web of Conferences', 'Modelling of sustainable development of megacities under limited resources', '10.1051/e3sconf/20199105007', (25,)), ('WASTES MANAGE.', 'Diagnosis of the management of solid urban waste of the municipalities of ABC Paulista of Brasil through the application of sustainability indicators', '10.1016/j.wasman.2018.12.001', (24,)), ('Urban Studies', 'A new waste and energy nexus? Rethinking the modernisation of waste services in Delhi', '10.1177/0042098018770592', (23,)), ('Advanced Materials Research', 'Modern building materials and the concept of "sustainability project"', '10.4028/www.scientific.net/AMR.941-944.825', (22,)), ('The Electricity Journal', 'Microgrids and resilience: Using a systems approach to achieve climate adaptation and mitigation goals', '10.1016/j.tej.2017.11.008', (20,))]
11-13	Waste	81	2019.00	vermicomposting soil compost organic sludge vermicompost wastes composting waste soils	[('Agronomy for Sustainable Development', 'Long-term effects of organic amendments on soil fertility. A review', '10.1051/agro/2009040', (1182,)), ('Environment International', 'A critical review of the bioavailability and impacts of heavy metals in municipal solid waste composts compared to sewage sludge', '10.1016/j.envint.2008.06.009', (790,)), ('Science of the Total Environment, The', 'Soil contamination with cadmium, consequences and remediation using organic amendments', '10.1016/j.scitotenv.2017.06.030', (600,)), ('WASTES MANAGE.', 'Agricultural utilization of biosolids: A review on potential effects on soil and plant grown', '10.1016/j.wasman.2017.03.002', (366,)), ('Sustainable Agriculture', 'Long-term effects of organic amendments on soil fertility', '10.1007/978-94-007-0394-0_34', (332,)), ('Resources, Conservation and Recycling', 'Management of urban solid waste: Vermicomposting a sustainable option', '10.1016/j.resconrec.2011.02.005', (222,)), ('International Journal of Environmental Research', 'Recycling of Organic Wastes in Agriculture: An Environmental Perspective', '10.1007/s41742-019-00175-y', (218,)), ('Agriculture, Ecosystems and Environment', 'Long-term amendment of Spanish soils with sewage sludge: Effects on soil functioning', '10.1016/j.agee.2012.05.016', (177,)), ('Journal of the Operational Research Society', 'Group decision-making approach for evaluating the sustainability of constructed wetlands with probabilistic linguistic preference relations', '10.1080/01605682.2018.1510806', (107,)), ('Environmental Pollution', 'Centrality of cattle solid wastes in vermicomposting technology – A cleaner resource recovery and biowaste recycling option for agricultural and environmental sustainability', '10.1016/j.envpol.2020.115688', (96,)), ('Environmental Science and Pollution Research', 'Gasification of sewage sludge within a circular economy perspective: a Polish case study', '10.1007/s11356-019-05897-2', (76,)), ('Sustainable Resource Recovery and Zero Waste Approaches', 'Vermicomposting of waste: A zero-waste approach for waste management', '10.1016/B978-0-444-64200-4.00010-4', (72,)), ('International Journal of Environmental Science and Technology', 'A critical review on waste paper sorting techniques', '10.1007/s13762-013-0222-3', (71,)), ('Journal of the Science of Food and Agriculture', 'The potential reuse of biodegradable municipal solid wastes (MSW) as feedstocks in vermicomposting', '10.1002/jsfa.4127', (69,)), ('Saudi Journal of Biological Sciences', 'Vermicomposting: A management tool to mitigate solid waste', '10.1016/j.sjbs.2021.02.072', (66,)), ('Resources, Conservation and Recycling', 'Management of industrial and municipal solid wastes in Poland', '10.1016/S0921-3449(00)00097-5', (59,)), ('Joule', 'Realizing “net-zero-carbon” sustainable aviation fuel', '10.1016/j.joule.2021.12.013', (58,)), ('Ecological Engineering', 'Nutrient recovery from urban forest leaf litter waste solids using Eisenia fetida', '10.1016/j.ecoleng.2014.08.010', (53,)), ('HortScience', 'Evaluation of allelopathic potential of wood chips for weed suppression in horticultural production systems', '10.21273/hortsci.40.3.711', (45,)), ('Ecological Chemistry and Engineering S', 'Sewage Sludge-To-Energy Management in Eastern Europe: A Polish Perspective', '10.1515/eces-2015-0027', (42,))]
11-8	Waste	106	2018.62	waste nigeria informal floating solid lch scavenging nigerian management recycling	[('Cities', 'Quality of life and alliances in solid waste management. Contributions to Urban sustainable development', '10.1016/S0264-2751(00)00049-4', (136,)), ('Habitat International', 'Solid waste reforms and informal recycling in Enugu urban area, Nigeria', '10.1016/j.habitatint.2008.05.006', (107,)), ('Journal of Environmental Planning and Management', 'Sustainable solid waste management in developing countries: a study of institutional strengthening for solid waste management in Johannesburg, South Africa', '10.1080/09640568.2019.1576510', (88,)), ('Local Environment', 'Municipal solid waste management in South Africa: from waste to energy recovery through waste-to-energy technologies in Johannesburg', '10.1080/13549839.2018.1561656', (87,)), ('Habitat International', 'From informality to formality: Perspectives on the challenges of integrating solid waste management into the urban development and¥xa0planning policy in Johannesburg, South Africa', '10.1016/j.habitatint.2017.03.018', (87,)), ('Recycling', 'Implementation of circular economy principles in industrial solid waste management: Case studies from a developing economy (Nigeria)', '10.3390/recycling4040042', (75,)), ('Geography Compass', 'Informal and Cooperative Recycling as a Poverty Eradication Strategy', '10.1111/j.1749-8198.2011.00468.x', (74,)), ('Environment and Urbanization', 'The impact of privatization of solid waste management on the Zabaleen garbage collectors of Cairo', '10.1177/095624780501700212', (67,)), ('Habitat International', "Cairo's Zabaleen garbage recyclers: Multi-nationals' takeover and state relocation plans", '10.1016/j.habitatint.2005.09.006', (65,)), ('Environment and Urbanization', 'Youth, waste and work in Mathare: Whose business and whose politics?', '10.1177/0956247810379946', (64,)), ('Journal of Material Cycles and Waste Management', 'Rethinking sustainability: a review of Liberia’s municipal solid waste management systems, status, and challenges', '10.1007/s10163-020-01046-x', (64,)), ('Sociological Perspectives', 'Environmental degradation, environmental sustainability, and overurbanization in the developing world: A quantitative, cross-national analysis', '10.1525/sop.2003.46.3.309', (51,)), ('Management Research Review', 'A framework for sustainable waste management: challenges and opportunities', '10.1108/MRR-11-2014-0264', (50,)), ('Physics & Chemistry of the Earth', 'An assessment of groundwater potential and vulnerability in the Upper Manyame Sub-Catchment of Zimbabwe', '10.1016/j.pce.2018.03.003', (46,)), ('International Journal of Construction Management', 'Low-cost housing policies and squatters struggles in Nigeria: the Nigerian perspective on possible solutions', '10.1080/15623599.2019.1602586', (41,)), ('Human Ecology Review', 'Urbanization, slums, and the carbon intensity of well-being: Implications for sustainable development', '10.22459/HER.22.01.2015.07', (41,)), ('Journal of Macromarketing', 'Macromarketing Issues on the Sidewalk: How “Gleaners” and “Disposers” (Re)Create a Sustainable Economy', '10.1177/0276146713518562', (39,)), ('Journal of International Development', 'Public-private community partnerships in infrastructure for the poor', '10.1002/jid.1052', (38,)), ('Resources, Conservation and Recycling', 'United We Can: Resource recovery, place and social enterprise', '10.1016/j.resconrec.2009.09.006', (36,)), ('Scientific Reports', 'Public perception and awareness of waste management from Benin City', '10.1038/s41598-020-79688-y', (36,))]

11-21	Waste	51	2018.35	zero waste zwc zw macau energy wte solid management rh	[('Journal of Cleaner Production', 'Minimizing the increasing solid waste through zero waste strategy', '10.1016/j.jclepro.2014.08.027', (405,)), ('Journal of Cleaner Production', 'A comprehensive review of the development of zero waste management: Lessons learned and guidelines', '10.1016/j.jclepro.2014.12.013', (270,)), ('City, Culture and Society', "Urban growth and waste management optimization towards 'zero waste city'", '10.1016/j.ccs.2011.11.007', (154,)), ('Renewable and Sustainable Energy Reviews', 'Sustainable rural electrification using rice husk biomass energy: A case study of Cambodia', '10.1016/j.rser.2015.01.018', (44,)), ('Resources, Conservation and Recycling', 'Zero waste in Los Angeles: Is the emperor wearing any clothes?', '10.1016/j.resconrec.2013.09.012', (42,)), ('Energy Efficiency', 'Energy retrofit of commercial buildings: Case study and applied methodology', '10.1007/s12053-012-9168-4', (41,)), ('Sustainable Cities and Society', 'Reliability and economic analysis of moving towards wastes to energy recovery based waste less sustainable society in Bangladesh: The case of commercial capital city Chittagong', '10.1016/j.scs.2016.11.011', (38,)), ('Procedia Manufacturing', 'Cyber-physical System Enabled in Sustainable Waste Management 4.0: A Smart Waste Collection System for Indonesian Semi-Urban Cities', '10.1016/j.promfg.2020.02.169', (36,)), ('Sustainability', 'Approaches and policies to promote zero-waste city construction: China's practices and lessons', '10.3390/su132413537', (35,)), ('WASTES MANAGE.', 'The factors affecting Italian provinces' separate waste-collection rates: An empirical investigation', '10.1016/j.wasman.2021.12.037', (34,)), ('Applied Energy', 'Beyond the EPBD: The low energy residential settlement Borgo Solare', '10.1016/j.apenergy.2009.05.029', (33,)), ('Motivating Change: Sustainable Design and Behaviour in the Built Environment', 'Motivating change: Sustainable design and behaviour in the built environment', '10.4324/9780203482087', (27,)), ('International Journal of Global Energy Issues', 'Modified landfill design for sustainable waste management', '10.1504/IJGEI.2005.006412', (25,)), ('Journal of Cleaner Production', 'Characterizing the essential materials and energy performance of city buildings: A case study of Macau', '10.1016/j.jclepro.2018.05.148', (23,)), ('Best Practices in Urban Solid Waste Management: Ownership, Governance, and Drivers of Performance in a Zero Waste Framework', 'BEST PRACTICES IN URBAN SOLID WASTE MANAGEMENT: Ownership, Governance, and Drivers of Performance in a Zero Waste Framework', '10.1108/9781800438880', (16,)), ('Journal of Material Cycles and Waste Management', 'Municipal solid waste management and short-term projection of the waste discard levels in Taiwan', '10.1007/s10163-008-0233-1', (16,)), ('Waste Management & Research', "Replication of urban innovations - Prioritization of strategies for the replication of Dhaka's community-based decentralized composting model", '10.1177/0734242X10380116', (15,)), ('Chemical Engineering Journal Advances', 'Waste to energy feasibility, challenges, and perspective in municipal solid waste incineration and implementation: A case study for Pakistan', '10.1016/j.ceja.2024.100595', (15,)), ('Sustainability', 'The Practical Experience of "Zero Waste City" Construction in Foshan City Condenses the Chinese Solution to the Sustainable Development Goals', '10.3390/su141912118', (13,)), ('Journal of Environmental Management', 'Pay-as-you-throw tariff and sustainable urban waste management: An empirical analysis of relevant effects', '10.1016/j.jenvman.2023.119211', (12,))]
11-16	Waste	72	2018.33	waste dengue solid aedes mps vector arboviral swm mosquito behavior	[('The Lancet infectious diseases', 'Epidemic arboviral diseases: priorities for research and public health', '10.1016/S1473-3099(16)30518-7', (461,)), ('Recycling', 'Raising awareness on solid waste management through formal education for sustainability: A developing countries evidence review', '10.3390/recycling6010006', (280,)), ('PLoS Neglected Tropical Diseases', 'Integrated Aedes management for the control of Aedes-borne diseases', '10.1371/journal.pntd.0006845', (214,)), ('Journal of Cleaner Production', 'A comparison study of 'motivation–intention–behavior' model on household solid waste sorting in China and Singapore', '10.1016/j.jclepro.2018.11.168', (210,)), ('Acta Tropica', 'Community involvement in the control of Aedes aegypti', '10.1016/0001-706X(95)00103-L', (183,)), ('Journal of Cleaner Production', 'Antecedents of urban residents' separate collection intentions for household solid waste and their willingness to pay: Evidence from China', '10.1016/j.jclepro.2016.09.223', (147,)), ('Resources, Conservation and Recycling', 'Key factors influencing public awareness of household solid waste recycling in urban areas of China: A case study', '10.1016/j.resconrec.2020.104813', (99,)), ('Journal of Environmental Science and Technology', 'Composting as a sustainable waste management technique in developing countries', '10.3923/jest.2011.93.102', (99,)), ('Journal of Medical Entomology', 'Proactive vector control strategies and improved monitoring and evaluation practices for dengue prevention', '10.1603/033.046.0601', (90,)), ('American Journal of Tropical Medicine and Hygiene', 'Community-based integrated control of Aedes aegypti: A brief overview of current programs', '10.4269/ajtmh.1994.50.50', (83,)), ('WASTES MANAGE.', 'Waste disposal and households' heterogeneity. Identifying factors shaping attitudes towards source-separated recycling in Bogotá, Colombia', '10.1016/j.wasman.2017.11.052', (82,)), ('Journal of Environmental and Public Health', 'Integrated models for solid waste management in tourism regions: Langkawi Island, Malaysia', '10.1155/2011/709549', (78,)), ('Resources, Conservation and Recycling', 'Euro-trash: Searching Europe for a more sustainable approach to waste management', '10.1016/S0921-3449(00)00089-6', (74,)), ('Insects', 'The state of the art of lethal oviposition trap-based mass interventions for arboviral control', '10.3390/insects8010005', (65,)), ('Urban Science', 'Innovative Use of Plastic for a Clean and Sustainable Environmental Management: Learning Cases from Ghana, Africa', '10.3390/urbansci5010012', (56,)), ('Waste Management & Research', 'Municipal household solid waste collection strategies in an African megacity: Analysis of public private partnership performance in Lagos', '10.1177/0734242X14544354', (52,)), ('Resources, Conservation and Recycling', 'Identifying the driving factors of rural residents' household waste classification behavior: Evidence from Sichuan, China', '10.1016/j.resconrec.2022.106159', (52,)), ('Sustainability', 'Assessment of public-private partnership in municipal solid waste management in Phnom Penh, Cambodia', '10.3390/su11051228', (50,)), ('Sustainability', 'Survey on household solid waste sorting at source in developing economies: A case study of Nur-Sultan City in Kazakhstan', '10.3390/su11226496', (44,)), ('Scientific Reports', 'Neighbors help neighbors control urban mosquitoes', '10.1038/s41598-018-34161-9', (40,))]
11-20	Waste	51	2018.14	geothermal energy biomass turkey waste mfc kilns solid membrane yw	[('Renewable and Sustainable Energy Reviews', 'A review on biomass as a fuel for boilers', '10.1016/j.rser.2011.02.015', (1423,)), ('Renewable and Sustainable Energy Reviews', 'Biomass and bioenergy: An overview of the development potential in Turkey and Malaysia', '10.1016/j.rser.2017.05.111', (206,)), ('Renewable and Sustainable Energy Reviews', 'Global warming and renewable energy sources for sustainable development: A case study in Turkey', '10.1016/j.rser.2006.07.016', (194,)), ('Renewable and Sustainable Energy Reviews', 'An overview for energy recovery from municipal solid wastes (MSW) in Malaysia scenario', '10.1016/j.rser.2012.11.050', (167,)), ('Renewable and Sustainable Energy Reviews', 'Garden waste biomass for renewable and sustainable energy production in China: Potential, challenges and development', '10.1016/j.rser.2013.02.003', (157,)), ('Geothermics', 'Environmental aspects of geothermal energy utilization', '10.1016/S0375-6505(03)00052-X', (154,)), ('Applied Energy', 'Microbial electrolysis cells for hydrogen production and urban wastewater treatment: A case study of Saudi Arabia', '10.1016/j.apenergy.2016.11.005', (151,)), ('Renewable and Sustainable Energy Reviews', 'Greener energy: Issues and challenges for Pakistan - Biomass energy prospective', '10.1016/j.rser.2011.04.015', (143,)), ('Renewable and Sustainable Energy Reviews', 'Renewable and Sustainable Energy Reviews: Environmental impact networks of renewable energy power plants', '10.1016/j.rser.2021.111626', (126,)), ('Process Biochemistry', 'Bioelectrochemical conversion of waste to energy using microbial fuel cell technology', '10.1016/j.procbio.2017.04.001', (92,)), ('Renewable and Sustainable Energy Reviews', 'Energy production, consumption, policies and recent developments in Turkey', '10.1016/j.rser.2009.12.006', (74,)), ('Energy Sources, Part A: Recovery, Utilization and Environmental Effects', 'Pyrolytic liquid fuel: A source of renewable electricity generation in Makkah', '10.1080/15567036.2016.1153753', (64,)), ('Geothermics', 'Sustainability evaluation of limestone geothermal reservoirs with extended production histories in Beijing and Tianjin, China', '10.1016/j.geothermics.2011.02.001', (50,)), ('Energy Policy', "Socio-economic drivers of large urban biomass cogeneration: Sustainable energy supply for Austria's capital Vienna", '10.1016/j.enpol.2006.01.022', (40,)), ('Renewable and Sustainable Energy Reviews', 'Evaluating the interplays among economic growth and energy consumption and CO emission of China during 1990-2007', '10.1016/j.rser.2011.07.137', (39,)), ('Journal of Planning Education and Research', 'Closing the loop: Community-based oganic solid waste recycling, urban gardening, and land use planning in Ghana, West Africa', '10.1177/0739456X07306392', (35,)), ('City and Environment Interactions', 'Solid waste management and urban environmental quality of public space in Chiclayo, Peru', '10.1016/j.cacint.2023.100112', (19,)), ('International Journal of Productivity and Performance Management', 'Sustainable municipal solid waste management (MSWM) in the smart cities in Indian context', '10.1108/IJPPM-10-2021-0588', (18,)), ('Desalination and Water Treatment', 'Energy efficient brick kilns for sustainable environment', '10.1080/19443994.2015.1012335', (16,)), ('Science of the Total Environment, The', 'Experimental investigation of the performance of anaerobic membrane bioreactor with electrolytic regeneration (AMBER) for challenges and options in wastewater treatment', '10.1016/j.scitotenv.2022.157080', (9,))]
11-1	Waste	221	2017.42	waste msw solid management mswm recycling collection municipal generation service	[('WASTES MANAGE.', 'Municipal solid waste management challenges in developing countries - Kenyan case study', '10.1016/j.wasman.2005.03.007', (466,)), ('WASTES MANAGE.', 'Forecasting municipal solid waste generation in a fast-growing urban region with system dynamics modeling', '10.1016/j.wasman.2004.10.005', (371,)), ('Environmental Chemistry Letters', 'Catalytic activity of metals in heterogeneous Fenton-like oxidation of wastewater contaminants: a review', '10.1007/s10311-021-01185-z', (220,)), ("Solid Waste Management in the World's Cities: Water and Sanitation in the World's Cities 2010", "Solid Waste Management in the World's Cities: Water and Sanitation in the World's Cities 2010", '10.4324/9781849774871', (207,)), ('WASTES MANAGE.', 'A system dynamic modeling approach for evaluating municipal solid waste generation, landfill capacity and related cost management issues', '10.1016/j.wasman.2010.05.012', (174,)), ('WASTES MANAGE.', 'Assessing the variables affecting on the rate of solid waste generation and recycling: An empirical analysis in Prespa Park', '10.1016/j.wasman.2015.09.028', (173,)), ('WASTES MANAGE.', 'Forecasting of municipal solid waste quantity in a developing country using multivariate grey models', '10.1016/j.wasman.2015.01.026', (154,)), ('WASTES MANAGE.', 'Seasonal characterization of municipal solid waste (MSW) in the city of Chihuahua, Mexico', '10.1016/j.wasman.2009.02.006', (153,)), ('Journal of Cleaner Production', 'Promoting public participation in household waste management: A survey based method and case study in Xiamen city, China', '10.1016/j.jclepro.2017.01.022', (148,)), ('Environmental Technology and Innovation', 'A review on photocatalytic remediation of environmental pollutants and H production through water splitting: A sustainable approach', '10.1016/j.eti.2020.100893', (145,)), ('Journal of Cleaner Production', 'Review on life cycle assessment of integrated solid waste management in some Asian countries', '10.1016/j.jclepro.2012.09.043', (142,)), ('Resources, Conservation and Recycling', 'Assessment of factors influencing the performance of solid waste recycling programs', '10.1016/j.resconrec.2008.09.004', (138,)), ('Resources, Conservation and Recycling', 'Solid waste management in municipalities in Mexico: Goals and perspectives', '10.1016/S0921-3449(03)00031-4', (135,)), ('WASTES MANAGE.', 'A purview of waste management evolution: Special emphasis on USA', '10.1016/j.wasman.2008.06.032', (119,)), ('Habitat International', 'Municipal solid waste management under decentralisation in Uganda', '10.1016/j.habitatint.2011.03.003', (116,)), ('Habitat International', 'Assessing urban recycling in low- and middle-income countries: Building on modernised mixtures', '10.1016/j.habitatint.2010.08.004', (113,)), ('WASTES MANAGE.', 'Municipal solid waste management in Africa: Strategies and livelihoods in Yaoundé, Cameroon', '10.1016/j.wasman.2008.05.005', (112,)), ('Recycling', 'Municipal solid waste management in Latin America and the Caribbean: Issues and potential solutions from the governance perspective', '10.3390/recycling3020019', (111,)), ('Environmental Challenges', 'A critical review in Fenton-like approach for the removal of pollutants in the aqueous environment', '10.1016/j.envc.2022.100534', (105,)), ('Journal of Environmental Management', 'Analysis of barriers and success factors affecting the adoption of sustainable management of municipal solid waste in Nigeria', '10.1016/j.jenvman.2012.02.027', (102,))]

12-5	Economic	132	2022.82	emissions energy ekc renewable brics lcf fdi environmental tourism load	[('Microorganisms for Sustainable Environment and Health', 'Environmental pollution: Causes, effects, and the remedies', '10.1016/B978-0-12-819001-2.00021-8', (421,)), ('Renewable and Sustainable Energy Reviews', 'Investigating the Environmental Kuznets Curve hypothesis in Kenya: A multivariate analysis', '10.1016/j.rser.2019.109481', (268,)), ('Renewable Energy', 'Do educational levels influence the environmental quality? The role of renewable and non-renewable energy demand in selected BRICS countries with a new policy perspective', '10.1016/j.renene.2020.09.090', (195,)), ('Environmental Science and Pollution Research', 'Dynamic common correlated effects of trade openness, FDI, and institutional performance on environmental quality: evidence from OIC countries', '10.1007/s11356-020-07768-7', (183,)), ('Frontiers in Environmental Science', 'Load Capacity Factor and Financial Globalization in Brazil: The Role of Renewable Energy and Urbanization', '10.3389/fenvs.2021.823185', (176,)), ('Sustainable Development', 'Influence of growth and urbanization on CO emissions: The moderating effect of foreign direct investment on energy use in BRICS', '10.1002/sd.2240', (169,)), ('Applied Energy', 'Circular economy for clean energy transitions: A new opportunity under the COVID-19 pandemic', '10.1016/j.apenergy.2021.116666', (139,)), ('Journal of Cleaner Production', 'Evaluation of the role of clean energy technologies, human capital, urbanization, and income on the environmental quality in the United States', '10.1016/j.jclepro.2023.136802', (133,)), ('Energy Reports', 'Reducing CO emissions in G7 countries: The role of clean energy consumption, trade openness and urbanization', '10.1016/j.egyr.2022.01.238', (133,)), ('Heliyon', 'Impact of urbanization, industrialization, electrification and renewable energy on the environment in BRICS: fresh evidence from novel CS-ARDL model', '10.1016/j.heliyon.2022.e11457', (123,)), ('Gondwana Research', 'Analyzing the determinants of the load capacity factor in OECD countries: Evidence from advanced quantile panel data methods', '10.1016/j.gr.2023.02.013', (123,)), ('Resources Policy', 'Do the Kyoto Protocol, geopolitical risks, human capital and natural resources affect the sustainability limit? A new environmental approach based on the LCC hypothesis', '10.1016/j.resourpol.2023.103352', (117,)), ('Sustainable Development', 'The role of renewable energy investment in tackling climate change concerns: Environmental policies for achieving SDG-13', '10.1002/sd.2491', (105,)), ('Gondwana Research', 'New insights from the STIPART model on how environmental-related technologies, natural resources and the use of the renewable energy influence load capacity factor', '10.1016/j.gr.2023.05.018', (103,)), ('Biomass and Bioenergy', 'Does biomass energy drive environmental sustainability? An SDG perspective for top five biomass consuming countries', '10.1016/j.biombioe.2021.106076', (98,)), ('Gondwana Research', 'Achieving carbon neutrality target in the emerging economies: Role of renewable energy and green technology', '10.1016/j.gr.2023.03.028', (91,)), ('Sustainability', 'The Dynamic Impacts of Economic Growth, Financial Globalization, Fossil Fuel, Renewable Energy, and Urbanization on Load Capacity Factor in Mexico', '10.3390/su151813462', (89,)), ('Environmental Science and Pollution Research', 'Modelling the interaction between tourism, energy consumption, pollutant emissions and urbanization: renewed evidence from panel VAR', '10.1007/s11356-020-09869-9', (87,)), ('Environmental Science and Pollution Research', 'Testing for the existence of the Environmental Kuznets Curve (EKC) for CO emissions in Ghana: evidence from the bootstrap rolling window Granger causality test', '10.1007/s11356-020-10600-x', (84,)), ('Energy & Environment', 'Mitigation pathways impact of climate change and improving sustainable development: The roles of natural resources, income, and CO emission', '10.1177/0958305X20932550', (80,))]
12-13	Economic	68	2022.81	civilized bioenergy digital energy green renewable china rural emissions digitalization	[('Environmental Science and Ecotechnology', "Towards carbon neutrality and China's 14th Five-Year Plan: Clean energy transition, sustainable urban development, and investment priorities", '10.1016/j.ese.2021.100130', (412,)), ('Environment, Development and Sustainability', 'The nexus between urbanization, renewable energy consumption, financial development, and CO emissions: evidence from selected Asian countries', '10.1007/s10668-021-01716-2', (269,)), ('Renewable Energy', 'The role of renewable energy and urbanization towards greenhouse gas emission in top Asian countries: Evidence from advance panel estimations', '10.1016/j.renene.2021.12.118', (224,)), ('Journal of Cleaner Production', 'Dynamic links among the demographic dividend, digitalization, energy intensity and sustainable economic growth: Empirical evidence from emerging economies', '10.1016/j.jclepro.2021.129858', (173,)), ('Environmental Development', 'The role of bioenergy in a climate-changing world', '10.1016/j.envdev.2017.02.008', (152,)), ('Journal of Cleaner Production', 'The asymmetric effect of public private partnership investment on transport CO emission in China: Evidence from quantile ARDL approach', '10.1016/j.jclepro.2020.125282', (143,)), ('Environmental Science and Technology', 'Stacked Use and Transition Trends of Rural Household Energy in Mainland China', '10.1021/acs.est.8b04280', (137,)), ('Geoscience Letters', 'Bioenergy production and environmental impacts', '10.1186/s40562-018-0114-y', (108,)), ('Resources Policy', 'Impact of non-renewable energy and natural resources on economic recovery: Empirical evidence from selected developing economies', '10.1016/j.resourpol.2022.103221', (98,)), ('Journal of Cleaner Production', 'Optimized integration of solar energy and liquefied natural gas regasification for sustainable urban development: Dynamic modeling, data-driven optimization, and case study', '10.1016/j.jclepro.2024.141405', (72,)), ('Frontiers in Environmental Science', 'Regional Sustainable Development and Spatial Effects From the Perspective of Renewable Energy', '10.3389/fenvs.2022.859523', (68,)), ('Ekonomska Istrazivanja', 'What drives carbon emissions in the long-run? The role of renewable energy and agriculture in achieving the sustainable development goals', '10.1080/1331677X.2021.2015613', (47,)), ('Energy & Environment', 'Renewable energy consumption and its impact on environmental quality: A pathway for achieving sustainable development goals in ASEAN countries', '10.1177/0958305X221134113', (38,)), ('Sustainable Production and Consumption', 'Towards sustainable development in developing countries: Aggregate and disaggregate analysis of energy intensity and the role of fossil fuel subsidies', '10.1016/j.spc.2020.07.011', (38,)), ('Frontiers in Psychology', 'Role of digitalization in environment, social and governance, and sustainability: Review-based study for implications', '10.3389/fpsyg.2022.961057', (36,)), ('Applied Economics Letters', 'Local government competition, development zones and urban green innovation: an empirical study of Chinese cities', '10.1080/13504851.2021.1942426', (28,)), ('Sustainability', 'Towards Environmental Sustainability in China: Role of Globalization and Hydroelectricity Consumption', '10.3390/su14074182', (25,)), ('Environment, Development and Sustainability', 'Tracking the roadmaps to sustainability: what do the symmetric effects of eco-digitalization, green technology, green finance, and renewable energy portend for China?', '10.1007/s10668-023-04289-4', (25,)), ('Energy & Environment', 'A new look at environmental sustainability from the lens of green policies, eco-digitalization, affluence, and urbanization: Empirical insights from BRICS economies', '10.1177/0958305X231177736', (25,)), ('Environmental Science and Policy', 'Improving regulations on residential emissions and non-criteria hazardous contaminants—Insights from a field campaign on ambient PM and PAHs in North China Plain', '10.1016/j.envsci.2018.12.003', (23,))]
12-2	Economic	195	2022.42	emissions carbon energy run renewable causality urbanization consumption growth industrialization	[('Journal of Cleaner Production', 'Urbanization and industrialization impact of CO emissions in China', '10.1016/j.jclepro.2017.10.156', (528,)), ('Environmental Science and Pollution Research', 'Impact of economic growth, nonrenewable and renewable energy consumption, and urbanization on carbon emissions in Sub-Saharan Africa', '10.1007/s11356-018-1753-4', (296,)), ('Energy Reports', 'Industrialization, urbanization and CO emissions in Saudi Arabia: Asymmetry analysis', '10.1016/j.egyr.2020.06.004', (264,)), ('Science of the Total Environment, The', 'The integrated impact of GDP growth, industrialization, energy use, and urbanization on CO emissions in developing countries: Evidence from the panel ARDL approach', '10.1016/j.scitotenv.2022.155795', (243,)), ('Energy and Climate Change', 'Nexus between carbon emissions, economic growth, renewable energy use, urbanization, industrialization, technological innovation, and forest area towards achieving environmental sustainability in Bangladesh', '10.1016/j.egycc.2022.100080', (237,)), ('Science of the Total Environment, The', 'Revealing stylized empirical interactions among construction sector, urbanization, energy consumption, economic growth and CO emissions in China', '10.1016/j.scitotenv.2018.12.112', (228,)), ('Journal of Cleaner Production', 'Environmental preservation amidst carbon emissions, energy consumption, and urbanization in selected african countries: Implication for sustainability', '10.1016/j.jclepro.2020.125409', (200,)), ('Energy', 'Do economic development and human capital decrease non-renewable energy consumption? Evidence for OECD countries', '10.1016/j.energy.2020.119147', (177,)), ('Journal of Cleaner Production', 'The nonlinear effects of population aging, industrial structure, and urbanization on carbon emissions: A panel threshold regression analysis of 137 countries', '10.1016/j.jclepro.2020.125381', (174,)), ('Environmental Science and Pollution Research', 'Modeling CO emissions in Malaysia: an application of Maki cointegration and wavelet coherence tests', '10.1007/s11356-021-12430-x', (169,)), ('International Journal of Environmental Research and Public Health', 'Impact of urbanization and economic growth on CO2 emission: A case of far east Asian countries', '10.3390/ijerph17072531', (165,)), ('Renewable Energy', 'Does export product quality and renewable energy induce carbon dioxide emissions: Evidence from leading complex and renewable energy economies', '10.1016/j.renene.2021.02.066', (159,)), ('Environmental Science and Pollution Research', 'Sustainable development and pollution: the effects of CO emission on population growth, food production, economic development, and energy consumption in Pakistan', '10.1007/s11356-021-16998-2', (157,)), ('SAGE Open', 'Relationship Among Economic Growth, Energy Consumption, CO Emission, and Urbanization: Evidence From MINT Countries', '10.1177/2158244020914648', (155,)), ('Energy Nexus', 'The dynamic nexus between economic growth, renewable energy use, urbanization, industrialization, tourism, agricultural productivity, forest area, and carbon dioxide emissions in the Philippines', '10.1016/j.nexus.2023.100180', (154,)), ('Journal of Environmental Studies and Sciences', 'Dynamic impacts of economic growth, energy use, urbanization, tourism, agricultural value-added, and forested area on carbon dioxide emissions in Brazil', '10.1007/s13412-022-00782-w', (128,)), ('International Journal of Sustainable Development and World Ecology', 'An empirical analysis of the determinants of CO2 emissions in ¥u200eGCC countries', '10.1080/13504509.2020.1715508', (123,)), ('World Development Sustainability', 'Dynamic impacts of economic growth, energy use, urbanization, agricultural productivity, and forested area on carbon emissions: New insights from Kazakhstan', '10.1016/j.wds.2022.100019', (116,)), ('Renewable Energy', 'How does green finance drive the decarbonization of the economy? Empirical evidence from China', '10.1016/j.renene.2023.01.058', (107,)), ('Energy Reports', 'Modeling the nexus between carbon emissions, urbanization, population growth, energy consumption, and economic development in Asia: Evidence from grey relational analysis', '10.1016/j.egyr.2022.03.179', (106,))]

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12-10	Economic	85	2022.29	cement energy natural emissions environmental resources biofuel pollution renewable carbon	[('Journal of Environmental Chemical Engineering', 'Bioethanol production: Feedstock and current technologies', '10.1016/j.jece.2013.10.013', (406,)), ('Renewable Energy', 'The environmental Kuznets curve, based on the economic complexity, and the pollution haven hypothesis in PIIGS countries', '10.1016/j.renene.2021.10.059', (393,)), ('Renewable and Sustainable Energy Reviews', 'Cement industry of China: Driving force, environment impact and sustainable development', '10.1016/j.rser.2016.11.033', (249,)), ('Environmental Science and Pollution Research', 'Clean energy investment and financial development as determinants of environment and sustainable economic growth: evidence from China', '10.1007/s11356-021-16832-9', (220,)), ('Gondwana Research', 'Linking energy transitions, energy consumption, and environmental sustainability in OECD countries', '10.1016/j.gr.2021.10.026', (219,)), ('Environmental Science and Pollution Research', 'Understanding the dynamics of natural resources rents, environmental sustainability, and sustainable economic growth: new insights from China', '10.1007/s11356-022-19952-y', (215,)), ('Environmental Science and Pollution Research', 'Dynamics among economic growth, urbanization, and environmental sustainability in IEA countries: the role of industry value-added', '10.1007/s11356-021-16000-z', (193,)), ('Resources Policy', 'Do natural resources, urbanization, and value-adding manufacturing affect environmental quality? Evidence from the top ten manufacturing countries', '10.1016/j.resourpol.2021.102109', (182,)), ('Environmental Science and Pollution Research', 'Assessing environmental quality through natural resources, energy resources, and tax revenues', '10.1007/s11356-022-22005-z', (172,)), ('Environmental Science and Pollution Research', 'Abundance of natural resources and environmental sustainability: the roles of manufacturing value-added, urbanization, and permanent cropland', '10.1007/s11356-022-21545-8', (165,)), ('Energy Sources, Part A: Recovery, Utilization and Environmental Effects', 'Environmental regulations an option: Asymmetry effect of environmental regulations on carbon emissions using non-linear ARDL', '10.1080/15567036.2018.1504145', (164,)), ('Renewable and Sustainable Energy Reviews', "Forecasting CO emissions of China's cement industry using a hybrid Verhulst-GM(1,N) model and emissions' technical conversion", '10.1016/j.rser.2020.109945', (133,)), ('Energy Research Letters', 'The Introduction of Green Finance: A Curse or a Benefit to Environmental Sustainability?', '10.46557/001c.29977', (102,)), ('Science of the Total Environment, The', 'Circular bio-economy via energy transition supported by Fuzzy Cognitive Map modeling towards sustainable low-carbon environment', '10.1016/j.scitotenv.2020.137754', (100,)), ('Biotechnology Advances', 'Exploitation of lignocellulosic-based biomass biorefinery: A critical review of renewable bioresource, sustainability and economic views', '10.1016/j.biotechadv.2023.108265', (88,)), ('Journal of Environmental Management', 'The role of green finance and energy innovation in neutralizing environmental pollution: Empirical evidence from the MINT economies', '10.1016/j.jenvman.2022.115500', (87,)), ('Resources Policy', 'Impact of energy depletion, human development, and income distribution on natural resource sustainability', '10.1016/j.resourpol.2023.103531', (81,)), ('Energy Conversion and Management: X', 'Trends and perspectives of liquid biofuel – Process and industrial viability', '10.1016/j.ecmx.2020.100075', (75,)), ('Sustainability', 'Examining structural relationships among night tourism experience, lovemarks, brand satisfaction, and brand loyalty on "cultural heritage night" in South Korea', '10.3390/SU12176723', (62,)), ('Resources Policy', 'The impact of green economic recovery on economic growth and ecological footprint: A case study in developing countries of Asia', '10.1016/j.resourpol.2023.103955', (60,))]
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12-14	Economic	58	2021.71	fintech energy renewable internet consumption nrp emissions africa poverty debt	[('Journal of Cleaner Production', 'Is the environmental Kuznets curve hypothesis a sound basis for environmental policy in Africa?', '10.1016/j.jclepro.2016.05.173', (164,)), ('Journal of Cleaner Production', 'Internet use encourages pro-environmental behavior: Evidence from China', '10.1016/j.jclepro.2020.120725', (136,)), ('Energies', 'CO Emissions from Renewable and Non-Renewable Electricity Generation Sources in the G7 Countries: Static and Dynamic Panel Assessment', '10.3390/en16031044', (115,)), ('Journal of Cleaner Production', 'Factors influencing renewable energy consumption in China: An empirical analysis based on provincial panel data', '10.1016/j.jclepro.2017.11.011', (114,)), ('Resources Policy', 'Fintech development, renewable energy consumption, government effectiveness and management of natural resources along the belt and road countries', '10.1016/j.resourpol.2022.103251', (101,)), ('Science of the Total Environment, The', 'Renewable energy consumption in Africa: Evidence from a bias corrected dynamic panel', '10.1016/j.scitotenv.2020.142583', (72,)), ('Social Indicators Research', 'Extreme Energy Poverty Incidence and Determinants in Nigeria: A Multidimensional Approach', '10.1007/s11205-018-1954-8', (66,)), ('Renewable Energy', 'Renewable energy as a determinant of inter-country differentials in CO emissions in Africa', '10.1016/j.renene.2021.03.096', (61,)), ('Energies', 'Does foreign direct investment influence renewable energy consumption? Empirical evidence from south asian countries', '10.3390/en14123470', (52,)), ('International Journal of Green Energy', 'Determinants of renewable energy production in WAEMU countries: New empirical insights and policy implications', '10.1080/15435075.2021.1875467', (46,)), ('Transportation Research Procedia', 'Investigation of Carbon Footprints of Highway Construction Materials in India', '10.1016/j.trpro.2016.11.095', (45,)), ('Technological Forecasting and Social Change', 'How financial technology affects energy transformation in China', '10.1016/j.techfore.2022.122259', (41,)), ('Environment, Development and Sustainability', 'Transitions to sustainable development: the role of green innovation and institutional quality', '10.1007/s10668-022-02328-0', (39,)), ('Journal of Environmental Management', 'Renewable energy and natural resource protection: Unveiling the nexus in developing economies', '10.1016/j.jenvman.2023.119546', (36,)), ('Energy', 'Turning the tide on energy poverty in sub-Saharan Africa: Does public debt matter?', '10.1016/j.energy.2023.128365', (35,)), ('International Journal of Energy Economics and Policy', 'An empirical analysis of factors affecting renewable energy consumption in association of Southeast Asian nations-4 countries', '10.32479/ijeep.8142', (34,)), ('Sustainable Futures', 'Energy transition in newly industrialized countries: A policy paradigm in the perspective of technological innovation and urbanization', '10.1016/j.sftr.2024.100163', (33,)), ('International Journal of Energy Sector Management', 'Does renewable energy consumption promote economic growth? An empirical analysis of panel threshold based on 54 African countries', '10.1108/IJESM-09-2021-0003', (29,)), ('Environmental Science and Pollution Research', 'Economic growth, energy consumption, and environmental quality nexus in Turkey: Evidence from simultaneous equation models', '10.1007/s11356-021-13468-7', (28,)), ('Journal of Risk and Financial Management', 'The Effect of Monetary Policy and Private Investment on Green Finance: Evidence from Hungary', '10.3390/jrfm15030117', (26,))]
12-9	Economic	88	2021.68	tourism carbon energy ict emissions pakistan economic commerce emission renewable	[('Resources Policy', 'Tourism, urbanization and natural resources rents matter for environmental sustainability: The leading role of AI and ICT on sustainable development goals in the digital era', '10.1016/j.resourpol.2023.103445', (258,)), ('Energy Policy', 'Revisiting electricity consumption, price, and real GDP: A modified sectoral level analysis from Pakistan', '10.1016/j.enpol.2020.112087', (163,)), ('Frontiers in Psychology', 'Women's Entrepreneurial Contribution to Family Income: Innovative Technologies Promote Females' Entrepreneurship Amid COVID-19 Crisis', '10.3389/fpsyg.2022.828040', (145,)), ('International Journal of Gender and Entrepreneurship', 'Learning experiences of women entrepreneurs amidst COVID-19', '10.1108/IJGE-09-2020-0153', (129,)), ('Resources Policy', 'Technology, Urbanization and Natural Gas Supply Matter for Carbon Neutrality: A New Evidence of Environmental Sustainability under the Prism of COP26', '10.1016/j.resourpol.2023.103465', (121,)), ('Evaluation Review', "The Impact of Economic Corridor and Tourism on Local Community's Quality of Life under One Belt One Road Context", '10.1177/0193841X231182749', (100,)), ('Journal of Urban Planning and Development', 'Impact of urban village disamenity on neighboring residential properties: Empirical evidence from nanjing through hedonic pricing model appraisal', '10.1061/(ASCE)UP.1943-5444.0000645', (95,)), ('Frontiers in Sustainable Food Systems', 'Land-use and food security in energy transition: Role of food supply', '10.3389/fsufs.2022.1053031', (90,)), ('Renewable and Sustainable Energy Reviews', 'Geographical and environmental perspectives for the sustainable development of renewable energy in urbanizing China', '10.1016/j.rser.2013.07.008', (73,)), ('Technological Forecasting and Social Change', 'How technological innovation and institutional quality affect sectoral energy consumption in Pakistan? Fresh policy insights from novel econometric approach', '10.1016/j.techfore.2022.121900', (70,)), ('Renewable Energy', 'Does financial development promote renewable energy consumption in the USA? Evidence from the Fourier-wavelet quantile causality test', '10.1016/j.renene.2022.07.008', (69,)), ('Journal of Cleaner Production', 'Modelling an empirical framework of the implications of tourism and economic complexity on environmental sustainability in G7 economies', '10.1016/j.jclepro.2022.134281', (67,)), ('Land Use Policy', 'Property rights and adjustment for sustainable development during post-productivist transitions in China', '10.1016/j.landusepol.2022.106379', (61,)), ('Gondwana Research', 'Impact of sectoral mix on environmental sustainability: How is heterogeneity addressed?', '10.1016/j.gr.2023.09.018', (58,)), ('Environmental Progress and Sustainable Energy', 'Green field investment and environmental performance: A case of selected nine developing countries of Asia', '10.1002/ep.12740', (53,)), ('Environment, Development and Sustainability', 'Analysis of agricultural greenhouse gas emissions using the STIRPAT model: a case study of Bangladesh', '10.1007/s10668-022-02224-7', (52,)), ('Renewable Energy', 'What affects the development of renewable energy power generation projects in China: ISM analysis', '10.1016/j.renene.2018.07.063', (42,)), ('Journal of Cleaner Production', 'Examining the environmental aspect of economic complexity outlook and environmental-related technologies in the Nordic states', '10.1016/j.jclepro.2023.137154', (42,)), ('Environmental Science and Pollution Research', 'Assessing the impact of green finance and urbanization on the tourism industry—an empirical study in China', '10.1007/s11356-022-22207-5', (39,)), ('Journal of Environmental Assessment Policy and Management', 'SEA, Urban Plans and Solid Waste Management in Kenya: Participation and Learning for Sustainable Cities', '10.1142/S1464333219500182', (38,))]
12-4	Economic	144	2021.02	emissions carbon causality ekc urbanization energy panel environmental financial renewable	[('Energy Economics', 'The effect of urbanization on CO emissions in emerging economies', '10.1016/j.eneco.2013.11.007', (710,)), ('Energy Economics', 'Modelling for insight: Does financial development improve environmental quality?', '10.1016/j.eneco.2019.06.025', (496,)), ('Journal of Cleaner Production', 'Impact of urbanization growth on Malaysia CO emissions: Evidence from the dynamic relationship', '10.1016/j.jclepro.2017.03.174', (285,)), ('Renewable Energy', 'How do renewable energy and urbanization cause carbon emissions? Evidence from advanced panel estimation techniques', '10.1016/j.renene.2021.12.112', (217,)), ('Journal of Cleaner Production', 'What matters for carbon emissions in regional sectors? A China study of extended STIRPAT model', '10.1016/j.jclepro.2018.01.116', (191,)), ('Sustainability', 'FDI, Green Innovation and Environmental Quality Nexus: New Insights from BRICS Economies', '10.3390/su14042181', (149,)), ('Energy Policy', 'Does emission of carbon dioxide is impacted by urbanization? An empirical study of urbanization, energy consumption, economic growth and carbon emissions - Using ARDL bound testing approach', '10.1016/j.enpol.2022.112908', (149,)), ('Natural Hazards', 'Using the STIRPAT model to explore the factors driving regional CO emissions: a case of Tianjin, China', '10.1007/s11069-014-1574-9', (112,)), ('Energy Sources, Part B: Economics, Planning and Policy', 'The dynamic impact of renewable energy consumption and financial development on CO emissions: For selected African countries', '10.1080/15567249.2017.1377319', (112,)), ('Energy', 'Non-linear nexus between CO emissions and economic growth: A comparison of OECD and B&R countries', '10.1016/j.energy.2020.118637', (110,)), ('Applied Economics', 'Does urbanization increase pollutant emission and energy intensity? evidence from some Asian developing economies', '10.1080/00036846.2019.1588947', (104,)), ('Renewable and Sustainable Energy Reviews', 'Heterogeneity analysis of factors influencing CO emissions: The role of human capital, urbanization, and FDI', '10.1016/j.rser.2023.113644', (104,)), ('Pakistan Journal of Commerce and Social Sciences', 'Effects of urbanization, industrialization, economic growth, energy consumption and financial development on carbon emissions: An extended STIRPAT model for heterogeneous income groups', 'NO DOI', (99,)), ('The Urban Household Energy Transition: Social and Environmental Impacts in the Developing World', 'The urban household energy transition: Social and environmental impacts in the developing world', '10.4324/9781936331000', (95,)), ('Gondwana Research', 'The relationship among urbanization, economic growth, renewable energy consumption, and environmental degradation: A comparative view of European and Asian emerging economies', '10.1016/j.gr.2023.10.023', (89,)), ('Environmental Science and Pollution Research', 'The environmental sustainability effects of financial development and urbanization in Latin American countries', '10.1007/s11356-021-14580-4', (85,)), ('Energy', 'Combined nonlinear effects of economic growth and urbanization on CO emissions in China: Evidence from a panel data partially linear additive model', '10.1016/j.energy.2019.115868', (78,)), ('Sustainable Development', 'Towards a sustainable future: The role of energy efficiency, renewable energy, and urbanization in limiting CO emissions in Sweden', '10.1002/sd.2658', (75,)), ('International Journal of Environmental Science and Technology', 'Sustainable

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12-8	Economic	89	2020.90	growth tourism onitsha urbanization sanitation economic nigeria green run energy	[('Environment and Urbanization', 'Urbanization and economic growth: The arguments and evidence for Africa and Asia', '10.1177/0956247813490908', (361,)), ('Renewable Energy', 'Urbanisation and its impact on building energy consumption and efficiency in China', '10.1016/j.renene.2009.02.015', (213,)), ('Environmental Science and Pollution Research', 'Can CO emissions and energy consumption determine the economic performance of South Korea? A time series analysis', '10.1007/s11356-021-13498-1', (156,)), ('Sustainability', 'Sustainability of the moderating role of financial development in the determinants of environmental degradation: Evidence from turkey', '10.3390/su13041844', (139,)), ('International Journal of Social Economics', 'The relationship between urbanization and economic growth an empirical study on ASEAN countries', '10.1108/IJSE-12-2016-0358', (121,)), ('Land', 'The Effects of Urbanisation on Green Growth within Sustainable Development Goals', '10.3390/land12020511', (81,)), ('Sustainable Development', 'An Overview of Chinese Green Building Standards', '10.1002/sd.1537', (76,)), ('Journal of Public Affairs', 'Electricity consumption, urbanization, and economic growth in Nigeria: New insights from combined cointegration amidst structural breaks', '10.1002/pa.2102', (76,)), ('Sustainability', 'Sustainability of energy-induced growth nexus in brazil: Do carbon emissions and urbanization matter?', '10.3390/su13084371', (71,)), ('Building Research and Information', 'Building energy efficiency for sustainable development in China: Challenges and opportunities', '10.1080/09613218.2012.682419', (70,)), ('International Journal of Environmental Research and Public Health', 'Linking economic growth, urbanization, and environmental degradation in China: What is the role of hydroelectricity consumption?', '10.3390/ijerph18136975', (65,)), ('Environmental Science and Pollution Research', 'Investigating the determinants of human development index in Pakistan: an empirical analysis', '10.1007/s11356-019-05271-2', (60,)), ('Economic Modelling', 'Industrial electricity consumption, human capital investment and economic growth in Chinese cities', '10.1016/j.econmod.2017.09.021', (56,)), ('Environmental Research', 'A land use regression model using machine learning and locally developed low cost particulate matter sensors in Uganda', '10.1016/j.envres.2021.111352', (54,)), ('Environmental Science and Pollution Research', 'An empirical note on tourism and sustainable development nexus', '10.1007/s11356-021-18371-9', (42,)), ('Environment and Planning A', 'An uncomfortable truth: Air-conditioning and sustainability in Asia', '10.1068/a45128', (41,)), ('Greenhouse Gases: Science and Technology', 'Recent progress and emerging strategies for carbon peak and carbon neutrality in China', '10.1002/ghg.2235', (39,)), ('PLoS ONE', 'Impact of tourism on sustainable development in BRI countries: The moderating role of institutional quality', '10.1371/journal.pone.0263745', (39,)), ('Advances in Hospitality and Tourism Research', 'The empirical evidence on tourism-urbanization-CO2 emissions nexus', '10.30519/ahtr.484287', (36,)), ('Energy Conversion and Management', 'Multi-scale smart management of integrated energy systems, Part 2: Weighted multi-objective optimization, multi-criteria decision making, and multi-scale management (3M) methodology', '10.1016/j.enconman.2019.111830', (35,))]
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13-4	Building Energy	109	2021.39	ped peds energy districts positive district zero transition renewable european	[('Energies', 'Towards 100 positive energy districts in europe: Preliminary data analysis of 61 European cases', '10.3390/en13226083', (100,)), ('Land Use Policy', 'Decision making for sustainable urban energy planning: an integrated evaluation framework of alternative solutions for a NZED (Net Zero-Energy District) in Turin', '10.1016/j.landusepol.2018.06.048', (81,)), ('Energy Conversion and Management', 'Energy management and sustainability assessment of renewable energy communities: The Italian context', '10.1016/j.enconman.2023.116713', (80,)), ('Sustainable Cities and Society', 'Towards the development of a net-zero energy district evaluation approach: A review of sustainable approaches and assessment tools', '10.1016/j.scs.2018.03.011', (78,)), ('Journal of Risk and Financial Management', 'Energy Communities Overview: Managerial Policies, Economic Aspects, Technologies, and Models', '10.3390/jrfm15110521', (65,)), ('Smart Cities', 'Renewable Energy Communities in Positive Energy Districts: A Governance and Realisation Framework in Compliance with the Italian Regulation', '10.3390/smartcities6010026', (56,)), ('Applied Energy', 'Energy planning of sustainable districts: Towards the exploitation of small size intermittent renewables in urban areas', '10.1016/j.apenergy.2018.07.074', (55,)), ('Energy Reports', 'A review of regional energy internet in smart city from the perspective of energy community', '10.1016/j.egyr.2021.11.286', (53,)), ('Energies', 'Sustainable urban areas for 2030 in a post-covid-19 scenario: Focus on innovative research and funding frameworks to boost transition towards 100 positive energy districts and 100 climate-neutral cities', '10.3390/en14010216', (51,)), ('Applied Energy', 'Complex networks for the integration of distributed energy systems in urban areas', '10.1016/j.apenergy.2017.02.065', (51,)), ('Applied Energy', 'Opportunities and risks of implementing zero-carbon building policy for cities: Hong Kong case', '10.1016/j.apenergy.2019.113835', (49,)), ('Building Research and Information', 'Towards a neighbourhood scale for low- or zero-carbon building projects', '10.1080/09613218.2012.683241', (47,)), ('Buildings', 'Challenges and barriers for net-zero/positive energy buildings and districts—empirical evidence from the smart city project sparcs', '10.3390/buildings11020078', (47,)), ('eTransportation', 'Urban-scale energy matching optimization with smart EV charging and V2G in a net-zero energy city powered by wind and solar energy', '10.1016/j.etran.2024.100314', (44,)), ('Energies', 'An evaluation framework for sustainable plus energy neighbourhoods: Moving beyond the traditional building energy assessment', '10.3390/en14144314', (44,)), ('International Journal of Design and Nature and Ecodynamics', 'The sustainable Urban district of vauban in Freiburg, Germany', '10.2495/DNE-V8-N4-265-286', (43,)), ('Sustainable Cities and Society', 'Microclimate mitigation for enhancing energy and environmental performance of Near Zero Energy Settlements in Italy', '10.1016/j.scs.2019.101964', (38,)), ('Sustainable Energy, Grids and Networks', 'Optimal design of electric mobility services for a Local Energy Community', '10.1016/j.segan.2021.100440', (37,)), ('Energies', 'Combining sufficiency, efficiency and flexibility to achieve positive energy districts targets', '10.3390/en14154697', (36,)), ('Energies', 'Energy Communities: Technical, Legislative, Organizational, and Planning Features', '10.3390/en15051731', (36,))]
13-3	Building Energy	125	2021.24	solar rooftop pv energy photovoltaic rooftops electricity potential radiation roof	[('Solar Energy', 'Quantifying rooftop photovoltaic solar energy potential: A machine learning approach', '10.1016/j.solener.2016.11.045', (222,)), ('Applied Energy', 'A city-scale estimation of rooftop solar photovoltaic potential based on deep learning', '10.1016/j.apenergy.2021.117132', (142,)), ('Scientific data', 'Vectorized rooftop area data for 90 cities in China', '10.1038/s41597-022-01168-x', (136,)), ('Energy', 'Solar energy potential of urban buildings in 10 cities of China', '10.1016/j.energy.2020.117038', (127,)), ('International Journal of Energy and Environmental Engineering', 'Evaluating solar energy technical and economic potential on rooftops in an urban setting: the city of Lethbridge, Canada', '10.1007/s40095-018-0289-1', (120,)), ('Renewable Energy', 'GIS-based modelling of shallow geothermal energy potential for CO emission mitigation in urban areas', '10.1016/j.renene.2015.09.017', (97,)), ('Journal of Cleaner Production', 'Towards feasibility of photovoltaic road for urban traffic-solar energy estimation using street view image', '10.1016/j.jclepro.2019.04.262', (91,)), ('Scientific data', 'EUBUCCO v0.1: European building stock characteristics in a common and open database for 200+ million individual buildings', '10.1038/s41597-023-02040-2', (81,)), ('Journal of Climate', 'Applications of Monsoon research: Opportunities to inform decision making and reduce regional vulnerability', '10.1175/JCLI4098.1', (71,)), ('Remote Sensing', 'Estimating roof solar energy potential in the downtown area using a GPU-accelerated solar radiation model and airborne LiDAR data', '10.3390/rs71215877', (60,)), ('Sustainable Cities and Society', 'The use of LiDAR versus unmanned aerial systems (UAS) to assess rooftop solar energy potential', '10.1016/j.scs.2020.102353', (57,)), ('Sustainable Cities and Society', 'Assessing the potential and utilization of solar energy at the building-scale in Shanghai', '10.1016/j.scs.2022.103917', (56,)), ('Journal of Cleaner Production', 'Spatial and temporal considerations in the performance of wastewater heat recovery systems', '10.1016/j.jclepro.2019.119583', (51,)), ('Renewable and Sustainable Energy Reviews', 'On the potential contribution of rooftop PV to a sustainable electricity mix: The case of Spain', '10.1016/j.rser.2020.110074', (49,)), ('Sustainable Cities and Society', 'Energy generation and storing electrical energy in an energy hybrid system consisting of solar thermal collector, Stirling engine and thermoelectric generator', '10.1016/j.scs.2021.103357', (43,)), ('Advances in Applied Energy', 'GIScience can facilitate the development of solar cities for energy transition', '10.1016/j.adapen.2023.100129', (42,)), ('Automation in Construction', 'Environmental benchmarking of building typologies through BIM-based combinatorial case studies', '10.1016/j.autcon.2021.103980', (41,)), ('Earth-Science Reviews', 'Artificial intelligence and visual analytics in geographical space and cyberspace: Research opportunities and challenges', '10.1016/j.earscirev.2023.104438', (41,)), ('Energy Reports', 'Determination of the urban rooftop photovoltaic potential: A state of the art', '10.1016/j.egyr.2021.06.031', (40,)), ('Socio-Economic Planning Sciences', 'Public street lighting service standard assessment and achievement', '10.1016/j.seps.2015.12.001', (37,))]

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13-2	Building Energy	153	2019.72	solar energy building form block design morphology blocks buildings outdoor	[('Renewable Energy', 'Solar energy and urban morphology: Scenarios for increasing the renewable energy potential of neighbourhoods in London', '10.1016/j.renene.2014.06.028', (212,)), ('Energy Procedia', 'Impact of Urban Density and Building Height on Energy Use in Cities', '10.1016/j.egypro.2016.09.142', (144,)), ('Energy and Buildings', 'The solar envelope: Its meaning for energy and buildings', '10.1016/S0378-7788(02)00076-2', (138,)), ('Energy and Buildings', 'Impact of urban form on building energy consumption and solar energy potential: A case study of residential blocks in Jianhu, China', '10.1016/j.enbuild.2022.112727', (130,)), ('Sustainable Cities and Society', 'Sustainability of compact cities: A review of Inter-Building Effect on building energy and solar energy use', '10.1016/j.scs.2021.103035', (126,)), ('Solar Energy', "Optimisation of buildings' solar irradiation availability", '10.1016/j.solener.2009.07.013', (126,)), ('Energy and Buildings', 'Urban morphology and building heating energy consumption: Evidence from Harbin, a severe cold region city', '10.1016/j.enbuild.2020.110143', (121,)), ('Energy and Buildings', 'From solar constraints to urban design opportunities: Optimization of built form typologies in a Brazilian tropical city', '10.1016/j.enbuild.2014.02.056', (105,)), ('Renewable and Sustainable Energy Reviews', 'Urban form and building energy use: A systematic review of measures, mechanisms, and methodologies', '10.1016/j.rser.2020.110662', (105,)), ('Applied Sciences (Switzerland)', 'Status of BIPV and BAPV system for less energy-hungry building in India-a review', '10.3390/app10072337', (103,)), ('Renewable and Sustainable Energy Reviews', 'A digital workflow to quantify regenerative urban design in the context of a changing climate', '10.1016/j.rser.2019.109255', (97,)), ('Building and Environment', 'A multi-objective optimization framework for designing urban block forms considering daylight, energy consumption, and photovoltaic energy potential', '10.1016/j.buildenv.2023.110585', (90,)), ('Urban Climate', 'Parametric study of URBAN morphology on building solar energy potential in Singapore context', '10.1016/j.uclim.2020.100624', (86,)), ('Energy and Buildings', 'Estimating the impact of urban densification on high-rise office building cooling loads in a hot and humid climate', '10.1016/j.enbuild.2018.10.019', (84,)), ('Renewable Energy', 'From simulation to data-driven approach: A framework of integrating urban morphology to low-energy urban design', '10.1016/j.renene.2021.08.024', (71,)), ('Sustainable Cities and Society', 'Applying urban parametric design optimisation processes to a hot climate: Case study of the UAE', '10.1016/j.scs.2014.09.001', (67,)), ('Energy and Buildings', 'Effect of urban built form and density on building energy performance in temperate climates', '10.1016/j.enbuild.2021.110762', (67,)), ('Sustainable Cities and Society', 'Design optimization of urban typologies: A framework for evaluating building energy performance and outdoor thermal comfort', '10.1016/j.scs.2021.103515', (65,)), ('Journal of Building Engineering', 'The impact of urban form on building energy and cost efficiency in temperate-humid zones', '10.1016/j.jobe.2020.101626', (64,)), ('Sustainable Cities and Society', 'Predicting solar radiation in the urban area: A data-driven analysis for sustainable city planning using artificial neural networking', '10.1016/j.scs.2023.105042', (58,))]
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13-7	Building Energy	77	2019.01	wind turbines turbine turbulence ventilation energy cfd rise buildings tall	[('Applied Energy', 'Feasibility analysis of a Darrieus vertical-axis wind turbine installation in the rooftop of a building', '10.1016/j.apenergy.2011.12.008', (276,)), ('Renewable and Sustainable Energy Reviews', 'Advances in wind energy resource exploitation in urban environment: A review', '10.1016/j.rser.2014.05.053', (225,)), ('Energy and Buildings', 'CFD simulations of natural ventilation behaviour in high-rise buildings in regular and staggered arrangements at various spacings', '10.1016/j.enbuild.2010.11.024', (167,)), ('Applied Energy', 'Aerodynamic design and economical evaluation of site specific small vertical axis wind turbines', '10.1016/j.apenergy.2012.07.047', (107,)), ('Renewable Energy', 'A new methodology for urban wind resource assessment', '10.1016/j.renene.2015.12.008', (87,)), ('Renewable Energy', 'Performance and safety of rooftop wind turbines: Use of CFD to gain insight into inflow conditions', '10.1016/j.renene.2013.11.033', (81,)), ('Journal of Wind Engineering and Industrial Aerodynamics', 'Wind energy system for buildings in an urban environment', '10.1016/j.jweia.2023.105349', (78,)), ('Applied Energy', 'An empirical-heuristic optimization of the building-roof geometry for urban wind energy exploitation on high-rise buildings', '10.1016/j.apenergy.2015.11.095', (70,)), ('Urban Wind Energy', 'Urban wind energy', '10.4324/9781849770262', (68,)), ('Energy Conversion and Management', 'Optimization of a vertical axis wind turbine with a deflector under unsteady wind conditions via Taguchi and neural network applications', '10.1016/j.enconman.2022.115209', (65,)), ('Applied Energy', 'Resource implications of alternative strategies for achieving zero greenhouse gas emissions from light-duty vehicles by 2060', '10.1016/j.apenergy.2017.11.074', (65,)), ('Applied Energy', 'Impacts of urban morphology on improving urban wind energy potential for generic high-rise building arrays', '10.1016/j.apenergy.2021.117304', (61,)), ('Energies', 'Renewable energy in urban areas: Worldwide research trends', '10.3390/en11030577', (58,)), ('Journal of Cleaner Production', 'Towards forest sustainability in Mediterranean countries using biomass as fuel for heating', '10.1016/j.jclepro.2017.04.091', (52,)), ('Journal of Cleaner Production', 'Wind resource potential assessment using a long term tower measurement approach: A case study of Beijing in China', '10.1016/j.jclepro.2017.10.347', (52,)), ('Energy and Buildings', 'CFD modeling of natural ventilation in a void connected to the living units of multi-storey housing for thermal comfort', '10.1016/j.enbuild.2017.03.035', (50,)), ('Building and Environment', 'Application of artificial intelligence to urban wind energy', '10.1016/j.buildenv.2021.107848', (48,)), ('Applied Energy', 'CFD assessment of wind energy potential for generic high-rise buildings in close proximity: Impact of building arrangement and height', '10.1016/j.apenergy.2022.119328', (47,)), ('Applied Energy', 'Wind-induced indoor-air flow in a high-rise building adjacent to a vertical wall', '10.1016/S0306-2619(03)00121-1', (45,)), ('iScience', 'Small wind turbines and their potential for internet of things applications', '10.1016/j.isci.2023.107674', (39,))]
13-6	Building Energy	83	2018.94	energy carbon modelling scenarios systems district transport res electricity emissions	[('Applied Energy', 'Paradigm shift in urban energy systems through distributed generation: Methods and models', '10.1016/j.apenergy.2010.10.018', (378,)), ('Renewable and Sustainable Energy Reviews', 'Towards the next generation of smart grids: Semantic and holonic multi-agent management of distributed energy resources', '10.1016/j.rser.2017.03.107', (251,)), ('Energy Conversion and Management', 'New paradigms in sustainable energy systems with hydrogen', '10.1016/j.enconman.2023.116950', (178,)), ('Biochemical Pharmacology', 'The relevance of daylight for humans', '10.1016/j.bcp.2020.114304', (142,)), ('International Journal of Sustainable Energy', 'Sustainable energy planning decision using the intuitionistic fuzzy analytic hierarchy process: choosing energy technology in Malaysia', '10.1080/14786451.2014.907292', (114,)), ('2015 IEEE Eindhoven PowerTech, PowerTech 2015', 'A review of multi-energy system planning and optimization tools for sustainable urban development', '10.1109/PTC.2015.7232360', (97,)), ('Energy', 'Sustainable development of the Belgrade energy system', '10.1016/j.energy.2008.01.013', (74,)), ('Energy Strategy Reviews', 'The use of energy system models for analysing the transition to low-carbon cities – The case of Oslo', '10.1016/j.esr.2017.01.001', (61,)), ('Renewable and Sustainable Energy Reviews', 'Scenarios as a tool supporting decisions in urban energy policy: The analysis using fuzzy logic, multi-criteria analysis and GIS tools', '10.1016/j.rser.2020.110598', (53,)), ('Journal of Cleaner Production', 'An integrated supply-demand model for the optimization of energy flow in the urban system', '10.1016/j.jclepro.2015.05.098', (46,)), ('Sustainable Cities and Society', 'Energy planning of low carbon urban areas - Examples from Finland', '10.1016/j.scs.2017.09.018', (44,)), ('Science of the Total Environment, The', 'A cost-efficiency and health benefit approach to improve urban air quality', '10.1016/j.scitotenv.2016.06.102', (44,)), ('Energy Policy', "Environmental performance evaluation of Beijing's energy use planning", '10.1016/j.enpol.2011.03.047', (43,)), ('Energy Strategy Reviews', 'City energy modelling - Optimising local low carbon transitions with household budget constraints', '10.1016/j.esr.2019.100387', (42,)), ('Energy', 'Optimisation and analysis of system integration between electric vehicles and UK decentralised energy schemes', '10.1016/j.energy.2019.03.184', (37,)), ('IEEE Systems Journal', 'GIS-based software infrastructure to model PV generation in fine-grained spatio-temporal domain', '10.1109/JSYST.2017.2726350', (36,)), ('Journal of Cleaner Production', 'InSmart – A methodology for combining modelling with stakeholder input towards EU cities decarbonisation', '10.1016/j.jclepro.2019.05.143', (36,)), ('Energy Reports', 'Energy planning and modeling tools for sustainable development: A systematic literature review', '10.1016/j.egyr.2023.11.043', (35,)), ('Cities', 'Spatial comparison of renewable energy supply and energy demand for low-carbon settlements', '10.1016/j.cities.2011.07.004', (34,)), ('Environmental Science and Pollution Research', 'Environmental analysis of a potential district heating network powered by a large-scale cogeneration plant', '10.1007/s11356-017-8863-2', (34,))]
13-5	Building Energy	91	2018.30	solar energy planning pv photovoltaic renewable spatial city urban consumption	[('Energy', 'Planning renewable energy in rural areas: Impacts on occupation and land use', '10.1016/j.energy.2018.05.009', (124,)), ('Energy Procedia', 'Solar urban planning: A parametric approach', '10.1016/j.egypro.2014.02.174', (93,)), ('Energy Procedia', 'Solar energy in urban environment: How urban densification affects existing buildings', '10.1016/j.egypro.2014.02.176', (82,)), ('Sustainable Cities and Society', 'Energy efficient city: A model for urban planning', '10.1016/j.scs.2016.04.011', (82,)), ('Energies', 'Energy transition and urban planning for local development. A critical review of the evolution of integrated spatial and energy planning', '10.3390/en12010035', (81,)), ('Energy, Sustainability and Society', 'Spatial dimensions of sustainable energy systems: New visions for integrated spatial and energy planning', '10.1186/2192-0567-1-2', (74,)), ('Energy Procedia', 'Towards solar urban planning: A new step for better energy performance', '10.1016/j.egypro.2012.11.139', (68,)), ('Renewable and Sustainable Energy Reviews', 'Outlook and challenges for promoting solar photovoltaic rooftops in Thailand', '10.1016/j.rser.2015.04.042', (58,)), ('Energy Democracy: Advancing Equity in Clean Energy Solutions', 'Energy democracy: Advancing equity in clean energy solutions', '10.5822/978-1-61091-852-7', (56,)), ('Energy Procedia', 'Solar energy integration in urban planning: GUUD model', '10.1016/j.egypro.2014.06.034', (55,)), ('Building and Environment', 'Development and test application of the UrbanSOLve decision-support prototype for early-stage neighborhood design', '10.1016/j.buildenv.2018.03.033', (53,)), ('Sustainable Cities and Society', 'Solar accessibility in developing cities: A case study in Kowloon East, Hong Kong', '10.1016/j.scs.2019.101738', (45,)), ('Energy Procedia', 'Typical values for active solar energy in urban planning', '10.1016/j.egypro.2014.02.181', (45,)), ('Energy and Buildings', 'Integrating energy efficiency and urban densification policies: Two Italian case studies', '10.1016/j.enbuild.2017.09.036', (39,)), ('Energies', 'The importance of local investments co-financed by the european union in the field of renewable energy sources in rural areas of Poland', '10.3390/en14020450', (34,)), ('Renewable and Sustainable Energy Reviews', 'A comprehensive analysis of parametric design approaches for solar integration with buildings: A literature review', '10.1016/j.rser.2022.112849', (32,)), ('Applied Thermal Engineering', 'Impact of district heating and groundwater heat pump systems on the primary energy needs in urban areas', '10.1016/j.applthermaleng.2012.01.047', (31,)), ('Renewable and Sustainable Energy Reviews', 'Performance-based design of multi-story buildings for a sustainable urban environment: A case study', '10.1016/j.rser.2019.109243', (27,)), ('Energy Procedia', 'SolarPW: A new solar design tool to exploit solar potential in existing urban areas', '10.1016/j.egypro.2012.11.130', (26,)), ('Heliyon', 'Integration of solar energy into low-cost housing for sustainable development: case study in developing countries', '10.1016/j.heliyon.2021.e08513', (25,))]

13-8	Building Energy	77	2017.30	energy building buildings design lidar consumption umis competitions modelling parametric	[('Energy', 'Forecasting energy consumption time series using machine learning techniques based on usage patterns of residential householders', '10.1016/j.energy.2018.09.144', (238,)), ('Solar Energy', 'SUNtool - A new modelling paradigm for simulating and optimising urban sustainability', '10.1016/j.solener.2007.06.002', (145,)), ('Computers, Environment and Urban Systems', 'Large-scale parameterization of 3D building morphology in complex urban landscapes using aerial LiDAR and city administrative data', '10.1016/j.compenvurbsys.2018.09.004', (111,)), ('Energy and Buildings', 'Proposal of a modeling approach considering urban form for evaluation of city level energy management', '10.1016/j.enbuild.2006.09.011', (111,)), ('Applied Energy', 'Evaluating the impact of canyon geometry and orientation on cooling loads in a high-mass building in a hot dry environment', '10.1016/j.apenergy.2009.11.034', (104,)), ('Atmospheric Environment', 'Strategic guidelines for street canyon geometry to achieve sustainable street air quality - Part II: Multiple canopies and canyons', '10.1016/S1352-2310(03)00252-8', (100,)), ('Landscape and Urban Planning', 'Modelling the built environment at an urban scale-Energy and health impacts in relation to housing', '10.1016/j.landurbplan.2007.05.015', (81,)), ('Frontiers in Energy Research', 'Systematic Review of Deep Learning and Machine Learning for Building Energy', '10.3389/fenrg.2022.786027', (77,)), ('Applied Energy', 'A solar-based sustainable urban design: The effects of city-scale street-canyon geometry on solar access in Geneva, Switzerland', '10.1016/j.apenergy.2019.02.014', (67,)), ('Energy and Buildings', 'Transition to a sustainable urban energy system from a long-term perspective: Case study in a Japanese business district', '10.1016/j.enbuild.2006.03.031', (59,)), ('Sustainable Cities and Society', 'Urban morphology indicator analyzes for urban energy modeling', '10.1016/j.scs.2019.101863', (44,)), ('Sustainable Cities and Society', 'Modeling the spatial relation between urban morphology, land surface temperature and urban energy demand', '10.1016/j.scs.2020.102246', (42,)), ('Applied Energy', 'Comparison of marginal and average emission factors for passenger transportation modes', '10.1016/j.apenergy.2019.03.172', (39,)), ('Renewable Energy', 'Assessing the solar potential of low-density urban environments in Andean cities with desert climates: The case of the city of Mendoza, in Argentina', '10.1016/j.renene.2007.11.007', (39,)), ('Royal Society Open Science', 'A compactness measure of sustainable building forms', '10.1098/rsos.181265', (36,)), ('Applied Sciences (Switzerland)', 'Investigation on roof segmentation for 3D building reconstruction from aerial LIDAR point clouds', '10.3390/app9214674', (34,)), ('Management of Environmental Quality: An International Journal', 'Energy profiling in the life-cycle assessment of buildings', '10.1108/14777831011010838', (33,)), ('Sustainability', 'Urban morphological feature extraction and multi-dimensional similarity analysis based on deep learning approaches', '10.3390/su13126859', (33,)), ('IBPSA 2009 - International Building Performance Simulation Association 2009', 'Optimisation of urban energy demand using an evolutionary algorithm', 'NO DOI', (26,)), ('Building Simulation', 'Energy and carbon performance of urban buildings using metamodeling variable importance techniques', '10.1007/s12273-020-0688-0', (24,))]
14-5	Forest	87	2019.07	forest disturbance landtrendr landsat forests carpathians cover recovery detection carbon	[('Remote Sensing of Environment', 'Characterizing 3D vegetation structure from space: Mission requirements', '10.1016/j.rse.2011.01.024', (205,)), ('Earth and Space Science', 'Mapping spatial distribution of forest age in China', '10.1002/2016EA000177', (106,)), ('Remote Sensing of Environment', 'A spatial and temporal analysis of forest dynamics using Landsat time-series', '10.1016/j.rse.2018.08.028', (102,)), ('Catena', 'Assessment of the impacts of clear-cutting on soil loss by water erosion in Italian forests: First comprehensive monitoring and modelling approach', '10.1016/j.catena.2016.02.017', (83,)), ('Forest Ecology and Management', 'Spatiotemporal dynamics of recent mountain pine beetle and western spruce budworm outbreaks across the Pacific Northwest Region, USA', '10.1016/j.foreco.2014.11.030', (79,)), ('Remote Sensing of Environment', 'Monthly mapping of forest harvesting using dense time series Sentinel-1 SAR imagery and deep learning', '10.1016/j.rse.2021.112822', (77,)), ('Remote Sensing of Environment', 'Mapping biomass change after forest disturbance: Applying LiDAR footprint-derived models at key map scales', '10.1016/j.rse.2013.03.017', (76,)), ('Forest Ecology and Management', 'Hotspots of the European forests carbon cycle', '10.1016/j.foreco.2008.04.009', (70,)), ('Remote Sensing of Environment', 'A Sentinel-2 based multispectral convolutional neural network for detecting artisanal small-scale mining in Ghana: Applying deep learning to shallow mining', '10.1016/j.rse.2020.111970', (70,)), ('Canadian Journal of Remote Sensing', 'Monitoring Canada's forests. Part 2: National forest fragmentation and pattern', '10.5589/m08-081', (63,)), ('International Journal of Applied Earth Observation and Geoinformation', 'The use of fixed–wing UAV photogrammetry with LiDAR DTM to estimate merchantable volume and carbon stock in living biomass over a mixed conifer–broadleaf forest', '10.1016/j.jag.2018.08.017', (62,)), ('Forest Ecology and Management', 'Historical forest management in Romania is imposing strong legacies on contemporary forests and their management', '10.1016/j.foreco.2015.11.023', (60,)), ('Remote Sensing of Environment', 'Assessment of spatio-temporal changes of smallholder cultivation patterns in the Angolan Miombo belt using segmentation of Landsat time series', '10.1016/j.rse.2017.04.012', (55,)), ('Climate Research', 'Forest ecosystem services affected by natural disturbances, climate and land-use changes in the Tatra Mountains', '10.3354/cr01461', (52,)), ('Remote Sensing', 'Modeling forest structural parameters in the mediterranean pines of central Spain using QuickBird-2 imagery and classification and regression tree analysis (CART)', '10.3390/rs4010135', (47,)), ('International Journal of Remote Sensing', 'Use of remote sensing coupled with a vegetation change tracker model to assess rates of forest change and fragmentation in Mississippi, USA', '10.1080/01431160903241999', (45,)), ('Remote Sensing', 'Phenology modelling and forest disturbance mapping with sentinel-2 time series in austria', '10.3390/rs12244191', (41,)), ('IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing', 'Improved Mapping of Long-Term Forest Disturbance and Recovery Dynamics in the Subtropical China Using All Available Landsat Time-Series Imagery on Google Earth Engine Platform', '10.1109/JSTARS.2021.3058421', (36,)), ('Geographical Journal', 'Sustainable rural tourism in the Romanian Carpathians', '10.2307/3060417', (35,)), ('Forests', 'Differentiation of alternate harvesting practices using annual time series of landsat data', '10.3390/f8010015', (33,))]
14-4	Forest	96	2018.76	cooking energy clean fuel households household lpg fuels firewood access	[('Energy Policy', 'Household energy preferences for cooking in urban Ouagadougou, Burkina Faso', '10.1016/j.enpol.2005.09.006', (233,)), ('Energy Research and Social Science', 'The role of narratives in socio-technical transitions - Fukushima and the energy regimes of Japan, Germany, and the United Kingdom', '10.1016/j.erss.2015.11.001', (194,)), ('World Development', 'Connective Power: Solar Electrification and Social Change in Kenya', '10.1016/j.worlddev.2006.10.001', (177,)), ('Energy for Sustainable Development', 'Cooking fuel preferences among Ghanaian Households: An empirical analysis', '10.1016/j.esd.2015.04.003', (114,)), ('Energy Policy', 'LPG fuel subsidies in Latin America and the use of solid fuels to cook', '10.1016/j.enpol.2017.04.046', (106,)), ('Energy & Environment', 'Household cooking fuel use patterns and determinants across southern Africa: Evidence from the demographic and health survey data', '10.1177/0958305X17739475', (87,)), ('Renewable and Sustainable Energy Reviews', 'COVID-19 impacts on household energy & food security in a Kenyan informal settlement: The need for integrated approaches to the SDGs', '10.1016/j.rser.2021.111018', (80,)), ('Sustainable Production and Consumption', 'Determinants of household choice of cooking energy and the effect of clean cooking energy consumption on household members' health status: The case of rural Ghana', '10.1016/j.spc.2021.06.005', (78,)), ('Energy, Sustainability and Society', 'Urban household cooking energy choice: an example of Bauchi metropolis, Nigeria', '10.1186/s13705-016-0080-1', (68,)), ('Physics & Chemistry of the Earth', 'Adapting to an innovation: Solar cooking in the urban households of Ouagadougou (Burkina Faso)', '10.1016/j.pce.2008.03.006', (62,)), ('Habitat International', "Nigerian households' cooking energy use, determinants of choice, and some implications for human health and environmental sustainability", '10.1016/j.habitatint.2016.02.001', (60,)), ('Energy for Sustainable Development', 'Energy access among the urban poor in Kenya', '10.1016/S0973-0826(09)60006-5', (54,)), ('Energy Policy', 'Universalization of access to modern energy services in Indian households-Economic and policy analysis', '10.1016/j.enpol.2009.06.021', (54,)), ('Applied Energy', 'Pay-as-you-go liquefied petroleum gas supports sustainable clean cooking in Kenyan informal urban settlement during COVID-19 lockdown', '10.1016/j.apenergy.2021.116769', (43,)), ('Energy Research and Social Science', 'Electricity access in Mozambique: A critical policy analysis of investment, service reliability and social sustainability', '10.1016/j.erss.2021.102123', (41,)), ('Sustainability', 'Estimation and determinants of multidimensional energy poverty among households in Nigeria', '10.3390/SU12187332', (40,)), ('Energies', 'Barrier analysis for the deployment of renewable-based mini-grids in Myanmar using the analytic hierarchy process (AHP)', '10.3390/en13061400', (40,)), ('International Journal of Sustainability in Higher Education', 'The role of Education 5.0 in accelerating the implementation of SDGs and challenges encountered at the University of Zimbabwe', '10.1108/IJSHE-05-2020-0158', (40,)), ('Sustainability', 'Shea (Vitellaria paradoxa) butter production and resource use by urban and rural processors in northern Ghana', '10.3390/su7043592', (39,)), ('Annals of the Association of American Geographers', 'Burning for sustainability: Biomass energy, international migration, and the move to cleaner fuels and cookstoves in guatemala', '10.1080/00045608.2011.568881', (39,))]
14-10	Forest	60	2018.20	flammability wui fires wildfires wildfire grazing wildland forest species rangelands	[('Proceedings of the National Academy of Sciences of the United States of America', 'Adapt tomore wildfire in western North American forests as climate changes', '10.1073/pnas.1617464114', (626,)), ('Forest Ecology and Management', 'The fire ecology and management of maritime pine (Pinus pinaster Ait.)', '10.1016/j.foreco.2007.01.010', (230,)), ('Ecology and Society', 'An operational framework for defining and monitoring forest degradatio', 'NO DOI', (213,)), ('Oecologia', 'Biodiversity and resilience of arthropod communities after fire disturbance in temperate forests', '10.1007/s00442-006-0450-z', (186,)), ('International Journal of Wildland Fire', 'Testing and classification of individual plants for fire behaviour: Plant selection for the wildlandurban interface', '10.1071/WF07128', (156,)), ('Ecosystem Services', 'An African account of ecosystem service provision: Use, threats and policy options for sustainable livelihoods', '10.1016/j.ecoser.2012.09.004', (130,)), ('Global Change Biology', 'Land use change emission scenarios: Anticipating a forest transition process in the Brazilian Amazon', '10.1111/gcb.13134', (128,)), ('Forest Ecology and Management', 'Post-fire tree mortality in mixed forests of central Portugal', '10.1016/j.foreco.2010.07.010', (126,)), ('Environmental Science and Policy', 'Portugal and Chile: Longing for sustainable forestry while rising from the ashes', '10.1016/j.envsci.2017.11.006', (94,)), ('Proceedings of the National Academy of Sciences of the United States of America', 'Native American fire management at an ancient wildland–urban interface in the Southwest United States', '10.1073/pnas.2018733118', (94,)), ('Environmental Management', 'Human activities in Natura 2000 sites: A highly diversified conservation network', '10.1007/s00267-013-0036-6', (85,)), ("Earth's Future", 'Risky Development: Increasing Exposure to Natural Hazards in the United States', '10.1029/2020EF001795', (81,)), ('International Journal of Wildland Fire', 'Flammability of native understory species in pine flatwood and hardwood hammock ecosystems and implications for the wildland-urban interface', '10.1071/WF03075', (77,)), ('Journal of Environmental Management', 'Rangeland dynamics in southern Ethiopia: (1) Botanical composition of grasses and soil characteristics in relation to land-use and distance from water in semi-arid Borana rangelands', '10.1016/j.jenvman.2006.10.007', (68,)), ('Applied Soil Ecology', 'Why are forest fires generally neglected in soil fauna research? A mini-review', '10.1016/j.apsoil.2015.10.012', (57,)), ('Journal of Applied Ecology', 'Functional diversity loss with increasing livestock grazing intensity in drylands: the mechanisms and their consequences depend on the taxa', '10.1111/1365-2664.12775', (55,)), ('Journal of Environmental Management', 'Wildfire frequency varies with the size and shape of fuel types in southeastern France: Implications for environmental management', '10.1016/j.jenvman.2012.12.006', (53,)), ('Rangeland Journal', 'A site-based approach to delivering rangeland ecosystem services', '10.1071/RJ11006', (40,)), ('Climate Policy', 'Securing the climate benefits of stable forests', '10.1080/14693062.2019.1598838', (39,)), ('Environmental Monitoring and Assessment', 'Decadal time-scale monitoring of forest fires in Similipal Biosphere Reserve, India using remote sensing and GIS', '10.1007/s10661-014-3619-7', (31,))]

14-11	Forest	59	2018.17	geotourism geosites geoheritage geodiversity heritage karst geological geoconservation tourism pruszków	[('Conservation Letters', 'An assessment of threats to terrestrial protected areas', '10.1111/conl.12435', (248,)), ('Biological Conservation', 'Physiological and reproductive consequences of human disturbance in Humboldt penguins: The need for species-specific visitor management', '10.1016/j.biocon.2006.05.019', (158,)), ('NO SOURCENAME', 'Handbook of Geotourism', '10.4337/9781785368868', (114,)), ('Environments - MDPI', 'Nature conservation and nature-based tourism: A paradox?', '10.3390/environments6090104', (110,)), ('Acta Carsologica', 'Evaluating the human disturbance to karst environments in Southern Italy', '10.3986/ac.v35i2-3.227', (79,)), ('Journal of Environmental Management', 'Monitoring vegetation change and dynamics on U.S. Army training lands using satellite image time series analysis', '10.1016/j.jenvman.2014.08.002', (58,)), ('Resources, Environment and Sustainability', 'Sustainability-based on socioformation and complex thought or sustainable social development', '10.1016/j.resenv.2020.100007', (45,)), ('Environmental Science and Policy', 'Urban geotourism development and geoconservation: Is it possible to find a balance?', '10.1016/j.envsci.2021.03.016', (44,)), ('Geoheritage', 'Assessment of Urban Geotourism Resources: An Example of Two Geocultural Sites in Brno, Czech Republic', '10.1007/s12371-020-00434-x', (40,)), ('Environmental Science and Policy', 'Assessment of impacts on ecosystem services provided by geodiversity in highly urbanised areas: A case study of the Taubaté Basin, Brazil', '10.1016/j.envsci.2020.05.015', (40,)), ('Sustainability', 'The role of anthropogenic landforms in sustainable landscape management', '10.3390/su11164331', (36,)), ('Environmental Geology', 'An example of the effects of anthropogenic changes on natural environment in the Apulian karst (southern Italy)', '10.1007/s00254-008-1604-6', (35,)), ('Geoheritage', 'An Assessment Method for Urban Geoheritage as a Model for Environmental Awareness and Geotourism (Segovia, Spain)', '10.1007/s12371-021-00548-w', (30,)), ('Geoheritage', 'Xitle Volcano Geoheritage, Mexico City: Raising Awareness of Natural Hazards and Environmental Sustainability in Active Volcanic Areas', '10.1007/s12371-020-00525-9', (28,)), ('Journal of Maps', 'Geological landscape and stone heritage of the genoa walls Urban park and surrounding area (Italy)', '10.1080/17445647.2018.1508378', (23,)), ('Urban Geomorphology: Landforms and Processes in Cities', 'Geotourism development in an urban area based on the local geological heritage (Pruszków, Central mazovia, Poland)', '10.1016/B978-0-12-811951-8.00003-5', (22,)), ('Forest Ecology and Management', 'Managing mistletoes: The value of local practices for a non-timber forest resource', '10.1016/j.foreco.2007.11.030', (21,)), ('Bird Conservation International', 'African Penguin tolerance to humans depends on historical exposure at colony level', '10.1017/S0959270915000313', (18,)), ('Geoheritage', 'Targeting Sustainability Issues at Geosites: a Study in Região dos Lagos, Rio de Janeiro, Brazil', '10.1007/s12371-016-0212-1', (18,)), ('Geoheritage', 'Community Perceptions for Geoconservation of a Coastal Area in Rio de Janeiro, Brazil', '10.1007/s12371-014-0130-z', (17,))]
14-2	Forest	117	2018.15	forest bark forests climate ecosystem disturbances beetle drought vulnerability disturbance	[('Science', 'Temperate forest health in an era of emerging megadisturbance', '10.1126/science.aaa9933', (784,)), ('Biological Reviews', 'Natural disturbance impacts on ecosystem services and biodiversity in temperate and boreal forests', '10.1111/brv.12193', (623,)), ('Ecological Modelling', 'Modelling natural disturbances in forest ecosystems: A review', '10.1016/j.ecolmodel.2010.09.040', (355,)), ('Ecological Modelling', 'An individual-based process model to simulate landscape-scale forest ecosystem dynamics', '10.1016/j.ecolmodel.2012.02.015', (238,)), ('Ambio', 'Contributions of a global network of tree diversity experiments to sustainable forest plantations', '10.1007/s13280-015-0685-1', (216,)), ('Forest Ecology and Management', 'Exploring the onset of high-impact mega-fires through a forest land management prism', '10.1016/j.foreco.2012.06.030', (186,)), ('Forest Ecology and Management', 'Forest functions, ecosystem stability and management', '10.1016/S0378-1127(00)00377-7', (169,)), ('New Phytologist', 'Tree defence and bark beetles in a drying world: carbon partitioning, functioning and modelling', '10.1111/nph.16173', (163,)), ('Forest Ecology and Management', 'Mechanisms of forest resilience', '10.1016/j.foreco.2022.120129', (157,)), ('New Forests', 'Perspectives in dryland restoration: Approaches for climate change adaptation', '10.1007/s11056-012-9325-9', (140,)), ('Environmental Modelling and Software', 'Simulating wind disturbance impacts on forest landscapes: Tree-level heterogeneity matters', '10.1016/j.envsoft.2013.09.018', (131,)), ('International Journal of Disaster Risk Reduction', 'A wildfire risk management concept based on a social-ecological approach in the European Union: Fire Smart Territory', '10.1016/j.ijdrr.2016.06.005', (125,)), ('Forestry Journal', 'Climate change increases the drought risk in Central European forests: What are the options for adaptation?', '10.2478/forj-2014-0001', (114,)), ('Forest Ecology and Management', 'Slow and fast drivers of the natural disturbance regime in Central European forest ecosystems', '10.1016/j.foreco.2013.07.017', (111,)), ('Wildfire Hazards, Risks, and Disasters', 'Forest Fires in Europe: Facts and Challenges', '10.1016/B978-0-12-410434-1.00005-1', (103,)), ('Climatic Change', 'Climate change vulnerability of sustainable forest management in the Eastern Alps', '10.1007/s10584-010-9899-1', (102,)), ('Ecological Modelling', 'The process-based forest growth model 3-PG for use in forest management: A review', '10.1016/j.ecolmodel.2019.01.007', (85,)), ('Nature Plants', 'Forest-linked livelihoods in a globalized world', '10.1038/s41477-020-00814-9', (84,)), ('Forest Ecology and Management', 'Integrating climate change into forest management in South-Central British Columbia: An assessment of landscape vulnerability and development of a climate-smart framework', '10.1016/j.foreco.2008.04.026', (73,)), ('Modeling Earth Systems and Environment', 'Assessing forest cover vulnerability in Uttarakhand, India using analytical hierarchy process', '10.1007/s40808-019-00710-y', (70,))]
14-12	Forest	57	2017.32	species forest diversity tree disturbed anthropogenic richness woody forests medicinal	[('Forest Ecology and Management', 'Anthropogenic disturbance and tree diversity in Montane Rain Forests in Chiapas, Mexico', '10.1016/S0378-1127(00)00639-3', (224,)), ('Ecological Indicators', 'Indicator-based vulnerability assessment of forest ecosystem in the Indian Western Himalayas: An analytical hierarchy process integrated approach', '10.1016/j.ecolind.2021.107568', (72,)), ('Hydrological Processes', 'Advances in Canadian forest hydrology, 1995-1998', '10.1002/1099-1085(20000630)14:9<1551::AID-HYP74>3.0.CO;2-J', (67,)), ('International Journal of Forestry Research', 'Woody Species Diversity, Structure, and Regeneration Status of Yemrehane Kirstos Church Forest of Lasta Woreda, North Wollo Zone, Amhara Region, Ethiopia', '10.1155/2018/5302523', (65,)), ('Current Science', 'Plant diversity in six forest types of Uttaranchal, Central Himalaya, India', 'NO DOI', (64,)), ('Tropical Ecology', 'Tree species composition, regeneration and diversity of an Indian dry tropical forest protected area', 'NO DOI', (53,)), ('Sustainability', 'Effects of grazing exclusion on biomass growth and species diversity among various grassland types of the Tibetan Plateau', '10.3390/su11061705', (53,)), ('Biological Conservation', 'Toward the sustainable harvesting of epiphytic bromeliads: A pilot study from the highlands of Chiapas, Mexico', '10.1016/S0006-3207(01)00053-2', (51,)), ('Applied Geography', 'Impacts of forest management on tree species richness and composition: Assessment of forest management regimes in Tarai landscape Nepal', '10.1016/j.apgeog.2019.102078', (47,)), ('Ecological Indicators', 'Ecological assessment of Cheffa Wetland in the Borkena Valley, northeast Ethiopia: Macroinvertebrate and bird communities', '10.1016/j.ecolind.2011.09.011', (46,)), ('Forest Ecology and Management', 'Simulations of pre- and post-harvest soil temperature, soil moisture, and snowpack for jack pine: Comparison with field observations', '10.1016/S0378-1127(00)00427-8', (44,)), ('International Forestry Review', 'Medicinal plants in urban districts of Tanzania: Plants, gender roles and sustainable use', '10.1505/ifor.7.1.44.64157', (43,)), ('Hydrological Processes', 'Advances in Canadian forest hydrology, 1999-2003', '10.1002/hyp.5773', (43,)), ('Journal of Mountain Science', 'Impact of anthropogenic disturbance on species diversity and vegetation structure of a lowland tropical rainforest of eastern Himalaya, India', '10.1007/s11629-017-4713-4', (43,)), ('International Journal of Biodiversity Science, Ecosystem Services and Management', 'Effect of anthropogenic disturbance on plant species diversity in oak forests in Nepal, Central Himalaya', '10.1080/21513732.2012.749303', (40,)), ('Chinese Geographical Science', 'Vegetation traits and soil properties in response to utilization patterns of grassland in Hulun Buir City, Inner Mongolia, China', '10.1007/s11769-014-0706-1', (39,)), ('Environmental Monitoring and Assessment', 'Effects of human-induced environmental changes on benthic macroinvertebrate assemblages of wetlands in Lake Tana Watershed, Northwest Ethiopia', '10.1007/s10661-017-5853-2', (35,)), ('Journal of Sustainable Forestry', 'Human Impacts on Forest Biodiversity in Protected Walnut-Fruit Forests in Kyrgyzstan', '10.1080/10549811.2014.901918', (35,)), ('Journal of Soils and Sediments', 'Impact of mowing management on nitrogen mineralization rate and fungal and bacterial communities in a semiarid grassland ecosystem', '10.1007/s11368-016-1620-1', (34,)), ('Trees, Forests and People', 'Human-driven disturbances change the vegetation characteristics of temperate forest stands: A case study from Pir Panchal mountain range in Kashmir Himalaya', '10.1016/j.tfp.2021.100134', (27,))]
14-3	Forest	105	2016.49	bushmeat hunting meat wild wildlife hunters hunted wildmeat species trade	[('Biodiversity and Conservation', 'Bushmeat hunting in the Congo Basin: An assessment of impacts and options for mitigation', '10.1023/A:1008877309871', (357,)), ('Biological Conservation', 'The bushmeat trade in African savannas: Impacts, drivers, and possible solutions', '10.1016/j.biocon.2012.12.020', (252,)), ('Annals of the New York Academy of Sciences', 'The empty forest revisited', '10.1111/j.1749-6632.2010.05908.x', (219,)), ('Conservation Biology', 'Role of prices and wealth in consumer demand for bushmeat in Gabon, Central Africa', '10.1111/j.1523-1739.2005.00372.x', (206,)), ('Conservation Biology', 'Bushmeat supply and consumption in a tropical logging concession in northern Congo', '10.1111/j.1523-1739.2009.01251.x', (150,)), ('ORYX', 'Bushmeat hunting and use in the Makira Forest, north-eastern Madagascar: A conservation and livelihoods issue', '10.1017/S0030605309000131', (141,)), ('Animal Conservation', 'Having your wildlife and eating it too: An analysis of hunting sustainability across tropical ecosystems', '10.1017/S1367943004001532', (135,)), ('Philosophical Transactions of the Royal Society B: Biological Sciences', 'Tropical forest recovery from logging: A 24 year silvicultural experiment from Central Africa', '10.1098/rstb.2012.0302', (128,)), ('Annual Review of Environment and Resources', 'Wild Meat Is Still on the Menu: Progress in Wild Meat Research, Policy, and Practice from 2002 to 2020', '10.1146/annurev-environ-041020-063132', (123,)), ('Journal of Wildlife Management', 'Towards wildlife management in tropical forests', '10.2307/3802482', (112,)), ('Journal of Zoology', 'Food habits of sympatric jaguars and pumas across a gradient of human disturbance', '10.1111/j.1469-7998.2009.00663.x', (109,)), ('PLoS ONE', 'Understanding urban demand for wild meat in Vietnam: Implications for conservation actions', '10.1371/journal.pone.0134787', (104,)), ('Conservation Biology', 'Rural development and sustainable wildlife use in Peru', '10.1046/j.1523-1739.2001.0150041163.x', (97,)), ('Ecology and Society', 'Evaluating the use of local ecological knowledge to monitor hunted tropicalforest wildlife over large spatial scales', '10.5751/ES-07601-200315', (96,)), ('African Journal of Ecology', 'Eating and conserving bushmeat in Africa', '10.1111/aje.12392', (89,)), ('Human Ecology', 'Incentives for hunting: The role of bushmeat in the household economy in rural equatorial guinea', '10.1007/s10745-010-9316-4', (85,)), ('Human Dimensions of Wildlife', 'Recognizing the multiple reasons for bushmeat consumption in urban areas: A necessary step toward the sustainable use of wildlife for food in central africa', '10.1080/10871209.2010.523924', (84,)), ('Scientific Reports', 'Disentangling the relative effects of bushmeat availability on human nutrition in central Africa', '10.1038/srep08168', (80,)), ('Biodiversity and Conservation', 'Bushmeat hunting and management: Implications of duiker ecology and interspecific competition', '10.1023/A:1016671524034', (79,)), ('Geographical Journal', 'Response to dynamic flood hazard factors in peninsular Malaysia', '10.2307/3059653', (78,))]

14-13	Forest	57	2016.37	boreal forest canada insect zabaikal wildfire bioenergy climate disturbance recovery	[('Environmental Reviews', "An introduction to Canada's boreal zone: Ecosystem processes, health, sustainability, and environmental issues", '10.1139/er-2013-0040', (288,)), ('Ecography', 'Biotic and abiotic variables show little redundancy in explaining tree species distributions', '10.1111/j.1600-0587.2010.06229.x', (213,)), ('Proceedings of the National Academy of Sciences of the United States of America', 'Policy strategies to address sustainability of Alaskan boreal forests in response to a directionally changing climate', '10.1073/pnas.0606955103', (136,)), ('Water, Air, and Soil Pollution', "Effects of climate change on insect defoliator population processes in Canada's boreal forest: Some plausible scenarios", '10.1007/BF01182854', (95,)), ('Critical Reviews in Plant Sciences', 'Can Boreal and Temperate Forest Management be Adapted to the Uncertainties of 21st Century Climate Change?', '10.1080/07352689.2014.858956', (91,)), ('Forest Ecology and Management', 'The impact of increasing fire frequency on forest transformations in southern Siberia', '10.1016/j.foreco.2016.10.015', (87,)), ('Forest Ecology and Management', 'Future quantities and spatial distribution of harvesting residue and dead wood from natural disturbances in Canada', '10.1016/j.foreco.2010.04.015', (86,)), ('Wiley Interdisciplinary Reviews: Water', 'The changing water cycle: the Boreal Plains ecozone of Western Canada', '10.1002/WAT2.1098', (79,)), ('Remote Sensing of Environment', 'Mapping, validating, and interpreting spatio-temporal trends in post-disturbance forest recovery', '10.1016/j.rse.2022.112904', (74,)), ('Forests', 'Aftermath of mountain pine beetle outbreak in british columbia: Stand dynamics, management response and ecosystem resilience', '10.3390/f7080171', (59,)), ('Environmental Monitoring and Assessment', "Influences of climatic change on some ecological processes of an insect outbreak system in Canada's boreal forests and the implications for biodiversity", '10.1023/A:1005818108382', (53,)), ('Environmental Research Letters', 'Assessment of post-fire vegetation recovery in Southern Siberia using remote sensing observations', '10.1088/1748-9326/ab083d', (51,)), ('Environmental Research Letters', 'Influence of logging on the effects of wildfire in Siberia', '10.1088/1748-9326/8/4/045034', (46,)), ('Silva Fennica', "A mechanistic perspective of possible influences of climate change on defoliating insects in North America's boreal forests", 'NO DOI', (46,)), ('Forestry Chronicle', 'Disturbing forest disturbances', '10.5558/tfc81662-5', (43,)), ('Forest Ecology and Management', 'Logging history (1820-2000) of a heavily exploited southern boreal forest landscape: Insights from sunken logs and forestry maps', '10.1016/j.foreco.2009.06.037', (42,)), ('Forests', 'Managing understory vegetation for maintaining productivity in black spruce forests: A synthesis within a multi-scale research model', '10.3390/f4030613', (41,)), ('Applied Energy', 'Sustainable biomass supply chains from salvage logging of fire-killed stands: A case study for wood pellet production in eastern Canada', '10.1016/j.apenergy.2015.04.048', (41,)), ('Environmental Reviews', 'Economic and ecological trade-off analysis of forest ecosystems: Options for boreal forests', '10.1139/er-2015-0090', (39,)), ('Sustainability', 'Striving for sustainability and resilience in the face of unprecedented change: The case of the mountain pine beetle outbreak in British Columbia', '10.3390/su2082403', (37,))]
14-7	Forest	78	2015.74	charcoal woodfuel fuelwood energy production africa biomass households cooking saharan	[('Energy for Sustainable Development', 'Charcoal, livelihoods, and poverty reduction: Evidence from sub-Saharan Africa', '10.1016/j.esd.2012.07.007', (228,)), ('Energy Policy', 'The forbidden fuel: Charcoal, urban woodfuel demand and supply dynamics, community forest management and woodfuel policy in Malawi', '10.1016/j.enpol.2010.02.050', (140,)), ('Journal of Refugee Studies', 'Refugee camps or cities? The socio-economic dynamics of the Dadaab and Kakuma camps in Northern Kenya', '10.1093/jrs/13.2.205', (138,)), ('Current Opinion in Environmental Sustainability', 'The potential of agroforestry in the provision of sustainable woodfuel in sub-Saharan Africa', '10.1016/j.cosust.2013.12.003', (120,)), ('Renewable and Sustainable Energy Reviews', 'Char fuel production in developing countries - A review of urban biowaste carbonization', '10.1016/j.rser.2016.01.088', (109,)), ('Biomass and Bioenergy', 'Biomass energy: Employment generation and its contribution to poverty alleviation', '10.1016/j.biombioe.2009.11.008', (97,)), ('Unasylva', 'Charcoal production and use in Africa: What future?', 'NO DOI', (70,)), ('Energy for Sustainable Development', 'Can there be energy policy in Sub-Saharan Africa without biomass?', '10.1016/j.esd.2012.10.005', (69,)), ('Energy for Sustainable Development', 'Livelihood diversification: The role of charcoal production in southern Malawi', '10.1016/j.esd.2016.10.001', (68,)), ('Energy for Sustainable Development', 'Formalisation of charcoal value chains and livelihood outcomes in Central- and West Africa', '10.1016/j.esd.2012.07.002', (68,)), ('Energy for Sustainable Development', 'Charcoal supply chains from Mabalane to Maputo: Who benefits?', '10.1016/j.esd.2016.06.003', (67,)), ('Environmental Research Letters', 'Unsustainable fuelwood extraction from South African savannas', '10.1088/1748-9326/8/1/014007', (52,)), ('Energy for Sustainable Development', 'The influence of energy policy on charcoal consumption in urban households in Tanzania', '10.1016/j.esd.2020.06.002', (50,)), ('Urban Anthropology', 'Unlikely cities in the desert: The informal economy as causal agent for permanent "urban" sustainability in Kakuma Refugee Camp, Kenya', 'NO DOI', (47,)), ('Development in Practice', 'Charcoal production and strategies to enhance its sustainability in Kenya', '10.1080/09614524.2013.780529', (45,)), ('Frontiers in Environmental Science', 'The marginalization of sustainable charcoal production in the policies of a modernizing African Nation', '10.3389/fenvs.2017.00027', (45,)), ('Energy for Sustainable Development', 'Enabling reforms: Analyzing the political economy of the charcoal sector in Tanzania', '10.1016/j.esd.2012.11.005', (39,)), ('Forest Policy and Economics', 'The economic importance of charcoal to rural livelihoods: Evidence from a key charcoal-producing area in Ghana', '10.1016/j.forpol.2019.01.013', (39,)), ('Sustainable Energy Technologies and Assessments', 'Sawdust pellets, micro gasifying cook stoves and charcoal in urban Zambia: Understanding the value chain dynamics of improved cook stove initiatives', '10.1016/j.seta.2017.02.010', (36,)), ('Energy Policy', 'Forestry policy and charcoal production in Senegal', '10.1016/0301-4215(93)90041-D', (36,))]
14-8	Forest	70	2014.73	grazing grassland alpine soil grasslands plant emf qtp diversity sds	[('Agriculture, Ecosystems and Environment', 'Enhancing sustainability of grassland ecosystems through ecological restoration and grazing management in an era of climate change on Qinghai-Tibetan Plateau', '10.1016/j.agee.2019.106684', (543,)), ('Ecology Letters', 'A checklist for ecological management of landscapes for conservation', '10.1111/j.1461-0248.2007.01114.x', (531,)), ('Restoration Ecology', 'Restoration and Rehabilitation of Degraded Ecosystems in Arid and Semi-Arid Lands. I. A View from the South', '10.1111/j.1526-100X.1993.tb00004.x', (389,)), ('Ecological Applications', 'Multi-decadal impacts of grazing on soil physical and biogeochemical properties in southeast Utah', '10.1890/04-0268', (244,)), ('PLoS ONE', 'Effects of different Grazing intensities on grassland production in China: A meta-analysis', '10.1371/journal.pone.0081466', (146,)), ('Grass and Forage Science', 'Grassland responses to grazing disturbance: Plant diversity changes with grazing intensity in a desert steppe', '10.1111/gfs.12065', (112,)), ('Restoration Ecology', 'Restoration and Rehabilitation of Degraded Ecosystems in Arid and Semi-Arid Lands. II. Case Studies in Southern Tunisia, Central Chile and Northern Cameroon', '10.1111/j.1526-100X.1993.tb00023.x', (108,)), ('African Journal of Agricultural Research', 'Application of design theory for restoring the "black beach" degraded rangeland at the headwater areas of the Qinghai-Tibetan Plateau', 'NO DOI', (95,)), ('Trends in Analytical Chemistry', 'Environmental pollution in Malaysia: trends and prospects', '10.1016/0165-9936(95)91369-4', (90,)), ('Science of the Total Environment, The', 'Diversity of plant and soil microbes mediates the response of ecosystem multifunctionality to grazing disturbance', '10.1016/j.scitotenv.2021.145730', (90,)), ('Plant Ecology', 'Plant biodiversity on shortgrass steppe after 55 years of zero, light, moderate, or heavy cattle grazing', '10.1023/A:1013273400543', (74,)), ('Catena', 'Shrinking water bodies as hotspots of sand and dust storms: The role of land degradation and sustainable soil and water management', '10.1016/j.catena.2021.105669', (73,)), ('Oecologia', 'Response of grassland biomass production to simulated climate change and clipping along an elevation gradient', '10.1007/s00442-013-2833-2', (69,)), ('Alpine Botany', 'Precipitation and species composition primarily determine the diversity-productivity relationship of alpine grasslands on the Northern Tibetan Plateau', '10.1007/s00035-014-0125-z', (68,)), ('Plant Ecology', 'Variation of stand structure and regeneration of Mediterranean holm oak along a grazing intensity gradient', '10.1023/B:VEGE.0000029322.75004.ad', (65,)), ('Applied Vegetation Science', 'Plant functional types: A promising tool for management and restoration of degraded lands', '10.1111/j.1654-109X.2003.tb00583.x', (60,)), ('Rangeland Ecology and Management', 'Spatial modeling of biological soil crusts to support rangeland assessment and monitoring', '10.2111/05-179R1.1', (59,)), ('Land Degradation & Development', 'Grazing significantly increases root shoot ratio but decreases soil organic carbon in Qinghai-Tibetan Plateau grasslands: A hierarchical meta-analysis', '10.1002/ldr.3606', (57,)), ('Journal of Geographical Sciences', 'Coupled effect of climate change and human activities on the restoration/degradation of the Qinghai-Tibet Plateau grassland', '10.1007/s11442-021-1899-8', (54,)), ('Journal of Cleaner Production', 'SOC changes were more sensitive in alpine grasslands than in temperate grasslands during grassland transformation in China: A meta-analysis', '10.1016/j.jclepro.2021.127430', (51,))]
14-14	Forest	54	2014.52	amazon ntfps brazil deforestation forest ntfp brazilian land amazonian amazonia	[('Nature Climate Change', 'Pervasive transition of the Brazilian land-use system', '10.1038/nclimate2056', (441,)), ('World Development', 'Poverty alleviation and tropical forests-what scope for synergies?', '10.1016/S0305-750X(01)00070-5', (409,)), ('Science', 'Overcoming the coupled climate and biodiversity crises and their societal impacts', '10.1126/science.abl4881', (242,)), ('Current Opinion in Environmental Sustainability', 'Agriculture in Brazil: Impacts, costs, and opportunities for a sustainable future', '10.1016/j.cosust.2010.09.008', (168,)), ('Forest Ecology and Management', 'Landscape dynamics of Amazonian deforestation between 1984 and 2002 in central Rondônia, Brazil: Assessment and future scenarios', '10.1016/j.foreco.2004.07.073', (118,)), ('Environmental Conservation', 'Road construction in the Peruvian Amazon: Process, causes and consequences', '10.1017/s0376892901000212', (83,)), ('Fish and Fisheries', 'Ecosystem-based management of Amazon fisheries and wetlands', '10.1111/faf.12328', (82,)), ('Journal of Sustainable Forestry', 'The future of tropical forests under the United Nations Sustainable Development Goals', '10.1080/10549811.2017.1416477', (79,)), ('Economic Geography', 'Toward adaptive community forest management: Integrating local forest knowledge with scientific forestry', '10.1111/j.1944-8287.2002.tb00175.x', (78,)), ('Annual Review of Environment and Resources', 'Forests and Sustainable Development in the Brazilian Amazon: History, Trends, and Future Prospects', '10.1146/annurev-environ-012220-010228', (76,)), ('Population and Environment', 'The population, agriculture, and environment nexus in Latin America: Country-level evidence from the latter half of the twentieth century', '10.1007/s11111-009-0090-4', (76,)), ('Ecology and Society', 'Explaining the persistence of low income and environmentally degrading land uses in the Brazilian Amazon', '10.5751/ES-09364-220327', (70,)), ('Journal of Applied Ecology', 'Anthropogenic disturbance of tropical forests threatens pollination services to açaí palm in the Amazon river delta', '10.1111/1365-2664.13086', (65,)), ('Conservation Biology', 'Hunting for sustainability in tropical secondary forests', '10.1111/j.1523-1739.2009.01224.x', (64,)), ('Brazilian perspectives on sustainable development of the Amazon region', 'Undoing myths: the Amazon - an urbanized forest', 'NO DOI', (39,)), ('Land', 'Assessing the extent of historical, current, and future land use systems in Uganda', '10.3390/land7040132', (37,)), ('Journal of Transport Geography', 'Mobility in development context: Changing perspectives, new interpretations, and the real issues', '10.1016/S0966-6923(99)00034-4', (34,)), ('Geographical Review', 'Boom towns of the Amazon', '10.2307/215475', (29,)), ('Human Organization', 'Migration to the Maya Biosphere Reserve, Guatemala: Why place matters', '10.17730/humo.67.1.lvk2584002111374', (28,)), ('Ecological Indicators', 'Socioeconomic dimensions, migration, and deforestation: An integrated model of territorial organization for the Brazilian Amazon', '10.1016/j.ecolind.2006.08.003', (26,))]

14-6	Forest	80	2013.71	forest species carabid beetles arthropod biodiversity diversity habitat forests carabids	[('Forest Ecology and Management', 'Biodiversity, disturbances, ecosystem function and management of european forests', '10.1016/S0378-1127(00)00378-9', (717,)), ('Biological Control', 'Conservation biological control and enemy diversity on a landscape scale', '10.1016/j.biocontrol.2007.08.006', (541,)), ('Ecological Indicators', 'The use of ground beetles (Coleoptera: Carabidae) and spiders (Araneae) as bioindicators of sustainable forest management: A review', '10.1016/j.ecolind.2005.03.005', (349,)), ('ZooKeys', 'Useful model organisms, indicators, or both? Ground beetles (Coleoptera, Carabidae) reflecting environmental conditions', '10.3897/zookeys.100.1533', (285,)), ('Journal of Applied Ecology', 'Plant diversity in a managed temperate deciduous forest: Understorey response to two silvicultural systems', '10.1111/j.0021-8901.2004.00960.x', (265,)), ('Crop Protection', 'A functional overview of conservation biological control', '10.1016/j.cropro.2016.11.008', (222,)), ('Soil Biology and Biochemistry', 'Soil fauna responses to natural disturbances, invasive species, and global climate change: Current state of the science and a call to action', '10.1016/j.soilbio.2017.03.008', (187,)), ('Ecology and Society', 'Classification of forest management approaches: A new conceptual framework and its applicability to European forestry', '10.5751/ES-05262-170451', (175,)), ('Scandinavian Journal of Forest Research', 'Biodiversity and its assessment in boreal and nemoral forests', '10.1080/02827580152632784', (173,)), ('Polish Journal of Ecology', 'Mites (Acari) as indicators of soil biodiversity and land use monitoring: A review', 'NO DOI', (160,)), ('Agriculture, Ecosystems and Environment', 'Using bioindicators based on biodiversity to assess landscape sustainability', '10.1016/S0167-8809(99)00027-4', (157,)), ('Applied Entomology and Zoology', 'Arthropods as bioindicators of sustainable forest management, with a focus on plantation forests', '10.1303/aez.2009.1', (141,)), ('Catena', 'Fire severity and soil erosion susceptibility mapping using multi-temporal Earth Observation data: The case of Mati fatal wildfire in Eastern Attica, Greece', '10.1016/j.catena.2019.104320', (130,)), ('Forest Ecology and Management', 'Effects of silvicultural treatments on forest biodiversity indicators in the Mediterranean', '10.1016/j.foreco.2008.02.013', (115,)), ('Forestry', 'Benefits to biodiversity from developing old-growth conditions in British upland spruce plantations: A review and recommendations', '10.1093/forestry/cpi004', (95,)), ('Ecology and Society', 'Ecological sustainability of birds in boreal forests', '10.5751/es-00079-020217', (93,)), ('Forest Snow and Landscape Research', 'Herb layer species as indicators of biodiversity of managed and unmanaged beech forests', 'NO DOI', (86,)), ('Conservation Biology', 'Utility of dynamic-landscape metapopulation models for sustainable forest management', '10.1111/j.1523-1739.2005.00276.x', (81,)), ('Canadian Journal of Forest Research', 'Biodiversity and multiple disturbances: Boreal forest ground beetle (Coleoptera: Carabidae) responses to wildfire, harvesting, and herbicide', '10.1139/X06-310', (78,)), ('Environmental Reviews', 'Vegetation management and ecosystem disturbance: Impact of glyphosate herbicide on plant and animal diversity in terrestrial systems', '10.1139/A03-005', (62,))]
14-1	Forest	167	2013.09	forest boreal harvest stands spruce disturbance stand forests species natural	[('Ambio', 'Reserves, Resilience and Dynamic Landscapes', '10.1579/0044-7447-32.6.389', (542,)), ('Silva Fennica', 'Natural fire regime: A guide for sustainable management of the Canadian boreal forest', '10.14214/sf.553', (398,)), ('Journal of Vegetation Science', 'Maintaining and restoring biodiversity in European boreal forests by developing natural disturbance regimes', '10.2307/3237275', (347,)), ('Environmental Reviews', 'Dynamics of North American boreal mixedwoods', '10.1139/a02-007', (341,)), ('Canadian Journal of Forest Research', 'Natural fire frequency for the eastern Canadian boreal forest: Consequences for sustainable forestry', '10.1139/x00-178', (336,)), ('Ambio', 'Forest management and biodiversity conservation based on natural ecosystem dynamics in Northern Europe: The complexity challenge', '10.1579/08-A-490.1', (299,)), ('Annals of Forest Science', 'Natural stand structures, disturbance regimes and successional dynamics in the Eurasian boreal forests: A review with special reference to Russian studies', '10.1051/forest/2008083', (195,)), ('Ambio', 'Past, current and future fire frequency in the canadian boreal forest: Implications for sustainable forest management', '10.1579/0044-7447-33.6.356', (185,)), ('Forestry Chronicle', 'The value of managing for biodiversity', '10.5558/tfc68225-2', (179,)), ('Ecology', 'Influence of logging, fire, and forest type on biodiversity and productivity in southern boreal forests', '10.1890/0012-9658(2001)082[2731:IOLFAF]2.0.CO;2', (169,)), ('Scandinavian Journal of Forest Research', 'Green tree retention in Fennoscandian forestry', '10.1080/02827580301300004433', (164,)), ('Canadian Journal of Forest Research', "Past, current, and future fire frequencies in Quebec's commercial forests: Implications for the cumulative effects of harvesting and fire on age-class structure and natural disturbance-based management", '10.1139/X06-177', (140,)), ('Biodiversity and Conservation', 'Managing the pattern of forest harvest: Lessons from wildfire', '10.1007/bf00051571', (125,)), ('Biological Conservation', 'Retention forestry as a major paradigm for safeguarding forest biodiversity in productive landscapes: A global meta-analysis', '10.1016/j.biocon.2014.04.016', (120,)), ('Canadian Journal of Forest Research', 'The importance of forest floor disturbance in the early regeneration patterns of the boreal forest of western and central quebec: A wildfire versus logging comparison', '10.1139/x00-067', (112,)), ('Canadian Journal of Forest Research', 'Natural disturbance emulation in boreal forest ecosystem management - Theories, strategies, and a comparison with conventional even-aged management', '10.1139/X2012-064', (104,)), ('Biological Reviews', 'Producing wood at least cost to biodiversity: integrating Triad and sharing–sparing approaches to inform forest landscape management', '10.1111/brv.12703', (98,)), ('Ecological Modelling', 'Response of tree growth to a changing climate in boreal central Canada: A comparison of empirical, process-based, and hybrid modelling approaches', '10.1016/j.ecolmodel.2007.12.010', (93,)), ('Global Ecology and Conservation', 'A global view of aspen: Conservation science for widespread keystone systems', '10.1016/j.gecco.2019.e00828', (90,)), ('Frontiers in Forests and Global Change', 'Natural Disturbance-Based Forest Management: Moving Beyond Retention and Continuous-Cover Forestry', '10.3389/ffgc.2021.629020', (89,))]
14-9	Forest	66	2010.29	soil forest harvesting disturbance soils biomass productivity harvest nutrient wildfire	[('ISME Journal', 'Significant and persistent impact of timber harvesting on soil microbial communities in Northern coniferous forests', '10.1038/ismej.2012.84', (272,)), ('Forest Ecology and Management', 'Humus in northern forests: Friend or foe?', '10.1016/S0378-1127(99)00295-9', (222,)), ('Ecological Modelling', 'TRIPLEX: A generic hybrid model for predicting forest growth and carbon and nitrogen dynamics', '10.1016/S0304-3800(01)00505-1', (177,)), ('Forest Ecology and Management', 'Small mammals as bioindicators of sustainable boreal forest management', '10.1016/j.foreco.2004.11.024', (136,)), ('Environmental Impact Assessment Review', 'Understanding the role of forest simulation models in sustainable forest management', '10.1016/S0195-9255(99)00044-X', (84,)), ('The Contribution of Soil Science to the Development of and Implementation of Criteria and Indicators of Sustainable Forest Management', 'Assessing soil quality: Practicable standards for sustainable forest productivity in the United States', '10.2136/sssaspecpub53.c3', (76,)), ('Forest Ecology and Management', 'Effects of understory management on trade-offs and synergies between biomass carbon stock, plant diversity and timber production in eucalyptus plantations', '10.1016/j.foreco.2017.11.015', (72,)), ('Forest Ecology and Management', 'Soil quality standards and guidelines for forest sustainability in northwestern North America', '10.1016/S0378-1127(00)00430-8', (69,)), ('Soil Science Society of America Journal', 'Importance of soil and role of ecosystem disturbance for sustained productivity of cool temperate and boreal forests', '10.2136/sssaj1996.03615995006000060007x', (61,)), ('Forecasting Forest Futures: A Hybrid Modelling Approach to the Assessment of Sustainability of Forest Ecosystems and their Values', 'Forecasting forest futures: A hybrid modelling approach to the assessment of sustainability of forest ecosystems and their values', '10.4324/9781849776431', (57,)), ('Ecological Modelling', 'Disturbances and the sustainability of long-term site productivity in lodgepole pine forests in the central interior of British Columbia - An ecosystem modeling approach', '10.1016/S0304-3800(03)00062-0', (50,)), ('Journal of Sustainable Forestry', 'Overview of Forest Biomass Harvesting Guidelines', '10.1080/10549811.2011.651786', (50,)), ('Tree Physiology', 'The process-based stand growth model Formix 3-Q applied in a GIS environment for growth and yield analysis in a tropical rain forest', '10.1093/treephys/20.5-6.367', (49,)), ('Forest Ecology and Management', 'How is wood-based pellet production affecting forest conditions in the southeastern United States?', '10.1016/j.foreco.2017.03.022', (48,)), ('Journal of Forestry', 'Ecological impacts of energy-wood harvests: Lessons from whole-tree harvesting and natural disturbance', '10.5849/jof.12-020', (47,)), ('Canadian Journal of Forest Research', 'Comprehensive assessment of carbon stocks and fluxes in a Boreal-Cordilleran forest management unit', '10.1139/x97-161', (46,)), ('Global Change Biology', 'Boreal forest soil carbon fluxes one year after a wildfire: Effects of burn severity and management', '10.1111/gcb.15721', (43,)), ('International Journal of Forest Engineering', 'Impacts of silvicultural prescriptions and implementation of best management practices on timber harvesting costs', '10.1080/14942119.2019.1562691', (41,)), ('Forest Science', 'Biomass removal, soil compaction, and vegetation control effects on five-year growth of Douglas-fir in coastal Washington', '10.1093/forestscience/53.5.600', (40,)), ('Forest Ecology and Management', 'Environmental implications of harvesting lower-value biomass in forests', '10.1016/j.foreco.2017.10.023', (37,))]
15-1	Governance	235	2020.53	labs ull experimentation lab ulls living experiments innovation governance transitions	[('Journal of Cleaner Production', 'Urban Transition Labs: Co-creating transformative action for sustainable cities', '10.1016/j.jclepro.2012.12.001', (530,)), ('Journal of Cleaner Production', 'Urban living labs for sustainability and low carbon cities in Europe: Towards a research agenda', '10.1016/j.jclepro.2015.08.053', (477,)), ('Journal of Cleaner Production', 'A systematic review of living lab literature', '10.1016/j.jclepro.2018.12.257', (349,)), ('Current Opinion in Environmental Sustainability', 'Urban living labs: governing urban sustainability transitions', '10.1016/j.cosust.2017.02.003', (315,)), ('European Planning Studies', 'Impacts of urban living labs on sustainability transitions: mechanisms and strategies for systemic change through experimentation', '10.1080/09654313.2018.1504895', (291,)), ('International Journal of Urban and Regional Research', '"Give Me a Laboratory and I Will Lower Your Carbon Footprint!" - Urban Laboratories and the Governance of Low-Carbon Futures", '10.1111/1468-2427.12077', (271,)), ('European Urban and Regional Studies', 'Urban living laboratories: Conducting the experimental city?', '10.1177/0969776418787222', (184,)), ('The Experimental City', 'The experimental city: New modes and prospects of urban transformation', '10.4324/9781315719825-1', (180,)), ('Sustainability', 'Co-creation dynamics in Urban Living Labs', '10.3390/su10061893', (177,)), ('European Planning Studies', 'Experimental governance: the role of municipalities in urban living labs', '10.1080/09654313.2018.1435631', (149,)), ('Environmental Politics', 'Climate changed urban futures: environmental politics in the anthropocene city', '10.1080/09644016.2021.1880713', (125,)), ('European Planning Studies', 'Urban experimentation & sustainability transitions', '10.1080/09654313.2018.1532977', (121,)), ('Urban Living Labs: Experimenting with City Futures', 'Urban living labs: Experimenting with city futures', '10.4324/9781315230641', (113,)), ('Cities and Low Carbon Transitions', 'Living laboratories for sustainability: Exploring the politics and epistemology of urban transition', '10.4324/9780203839249', (110,)), ('Geography Compass', 'Trials and Tribulations: Problematizing the City through/as Urban Experimentation', '10.1111/gec3.12280', (98,)), ('Sustainability Science', 'Sense of place and experimentation in urban sustainability transitions: the Resilience Lab in Carnisse, Rotterdam, The Netherlands', '10.1007/s11625-018-0562-5', (94,)), ('Journal of Cleaner Production', 'Sustainability-oriented labs in real-world contexts: An exploratory review', '10.1016/j.jclepro.2020.123202', (87,)), ('GAIA - Ecological Perspectives for Science and Society', 'Urban living labs and the role of users in co-creation', '10.14512/gaia.27.s1.14', (85,)), ('Sustainability', 'The defining characteristics of agroecosystem living labs', '10.3390/su13041718', (77,)), ('International Journal of Urban and Regional Research', "Understanding the role of the national exemplar in constructing 'strategic glurbanization'", '10.1111/j.1468-2427.2007.00733.x', (74,))]

15-2	Governance	230	2020.00	transformative transitions governance transformation transformations transition capacity sustainability actors urban	[('Journal of Cleaner Production', 'Advancing sustainable urban transformation', '10.1016/j.jclepro.2013.01.003', (369,)), ('Technological Forecasting and Social Change', 'The interplay of institutions, actors and technologies in socio-technical systems - An analysis of transformations in the Australian urban water sector', '10.1016/j.techfore.2015.11.023', (308,)), ('Cities', 'Conceptualizing urban transformative capacity: A framework for research and policy', '10.1016/j.cities.2015.11.011', (256,)), ('Journal of Cleaner Production', "The role of partnerships in 'realising' urban sustainability in Rotterdam's City Ports Area, the Netherlands", '10.1016/j.jclepro.2013.09.023', (154,)), ('Environmental Innovation and Societal Transitions', 'Urban sustainability transitions in a context of multi-level governance: A comparison of four European states', '10.1016/j.eist.2017.05.002', (147,)), ('Sustainability', 'Cities and systemic change for sustainability: Prevailing epistemologies and an emerging research agenda', '10.3390/su8020144', (144,)), ('Current Opinion in Environmental Sustainability', 'Elucidating the changing roles of civil society in urban sustainability transitions', '10.1016/j.cosust.2017.04.008', (142,)), ('Environmental Innovation and Societal Transitions', 'Co-producing urban sustainability transitions knowledge with community, policy and science', '10.1016/j.eist.2018.08.001', (135,)), ('Ambio', 'Transformative capacity and local action for urban sustainability', '10.1007/s13280-018-1086-z', (117,)), ('Ambio', 'Urban transformative capacity: From concept to practice', '10.1007/s13280-019-01169-y', (115,)), ('Journal of Environmental Management', 'Tales of transforming cities: Transformative climate governance capacities in New York City, U.S. and Rotterdam, Netherlands', '10.1016/j.jenvman.2018.10.043', (114,)), ('Current Opinion in Environmental Sustainability', 'Cities, systems and sustainability: status and perspectives of research on urban transformations', '10.1016/j.cosust.2017.01.014', (112,)), ('Journal of Cleaner Production', 'What role for network governance in urban low carbon transitions?', '10.1016/j.jclepro.2012.11.045', (105,)), ('Journal of Cleaner Production', 'Moving towards systemic change? Investigating acceleration dynamics of urban sustainability transitions in the Belgian City of Genk', '10.1016/j.jclepro.2016.12.052', (102,)), ('Regional Environmental Change', 'Steering transformations under climate change: capacities for transformative climate governance and the case of Rotterdam, the Netherlands', '10.1007/s10113-018-1329-3', (102,)), ('Journal of Cleaner Production', 'On the role and capabilities of collaborative intermediary organisations in urban sustainability transitions', '10.1016/j.jclepro.2012.11.017', (98,)), ('Sustainability', 'The acceleration of urban sustainability transitions: A comparison of Brighton, Budapest, Dresden, Genk, and Stockholm', '10.3390/su10030612', (97,)), ('Journal of Cleaner Production', 'Sustainable urban transformation and sustainability transitions; conceptual framework and case study', '10.1016/j.jclepro.2015.10.136', (88,)), ('Cities', 'Governing cities for sustainable energy: The UK case', '10.1016/j.cities.2015.10.014', (87,)), ('International Journal of Environmental Research and Public Health', 'Organising a safe space for navigating social-ecological transformations to sustainability', '10.3390/ijerph120606027', (87,))]
15-9	Governance	68	2018.72	transitions governance scalar climate energy governments local actors latecomer niche	[('Progress in Human Geography', 'Socio-technical regimes and sustainability transitions: Insights from political ecology', '10.1177/0309132511427960', (510,)), ('Environmental Politics', 'Revisiting the urban politics of climate change', '10.1080/09644016.2013.755797', (463,)), ('Environment & Planning C: Government & Policy', 'Networked urban climate governance: Neighborhood-scale residential solar energy systems and the example of Solarize Portland', '10.1068/c11304', (78,)), ('Research Policy', 'The role of proximity in sustainability transitions: A technological niche evolution analysis', '10.1016/j.respol.2021.104464', (74,)), ('Journal of Environmental Policy and Planning', 'Changing governance structures and the environment: Economy-environment relations at the local and regional scales', '10.1002/jepp.104', (64,)), ('Current Opinion in Environmental Sustainability', 'Urban partnerships and climate adaptation: Challenges and opportunities', '10.1016/j.cosust.2014.11.001', (55,)), ('Environment & Planning C: Government & Policy', 'Novel multisector networks and entrepreneurship in urban climate governance', '10.1068/c3105ed', (48,)), ('Research Policy', 'The verticality of policy mixes for sustainability transitions: A case study of solar water heating in China', '10.1016/j.respol.2019.02.009', (47,)), ('Geographical Journal', "Sustainable construction and socio-technical transitions in London's mega-projects", '10.1111/geoj.12167', (45,)), ('Environmental Policy and Governance', 'Municipal Governance and Sustainability: The Role of Local Governments in Promoting Transitions', '10.1002/eet.1708', (43,)), ('Cities', 'Local governments' incentives and governing practices in low-carbon transition: A comparative study of solar water heater governance in four Chinese cities', '10.1016/j.cities.2019.102477', (39,)), ('Politics and Governance', 'Locating cities and their governments in multi-level sustainability governance', '10.17645/pag.v9i1.3616', (36,)), ('Regional Studies', 'Sustainability transitions and leapfrogging in latecomer cities: the development of solar thermal energy in Dezhou, China', '10.1080/00343404.2016.1260706', (34,)), ('Urban Studies', 'Unravelling the role of green entrepreneurs in urban sustainability transitions: A case study of China's Solar City', '10.1177/0042098019888144', (31,)), ('Journal of Cleaner Production', 'Geography, urbanization and lock-in – considerations for sustainable transitions to decentralized energy systems', '10.1016/j.jclepro.2015.12.092', (30,)), ('Environment & Planning C: Government & Policy', 'Governing urban development for climate risk: What role for public–private partnerships?', '10.1177/0263774X15614692', (28,)), ('Australian Geographer', 'Factors inhibiting local government engagement in environmental sustainability: Case studies from rural Australia', '10.1080/00049180701399985', (26,)), ('Environmental Hazards', 'Sustainable development planning and green construction for building resilient cities: Russian experiences within the international context', '10.1080/17477891.2017.1280000', (26,)), ('Journal of Environmental Policy and Planning', 'Policy transfer in city-to-city cooperation: implications for urban climate governance learning', '10.1080/1523908X.2018.1562668', (24,)), ('Globalizations', 'Desert geographies: solar energy governance for just transitions', '10.1080/14747731.2022.2095116', (23,))]
15-5	Governance	118	2018.51	visions futures foresight visioning retrofit retrofitting future scenario futuring game	[('Sustainability Science', 'Quality criteria for visions and visioning in sustainability science', '10.1007/s11625-013-0208-6', (245,)), ('Current Opinion in Environmental Sustainability', 'Positive visions for guiding urban transformations toward sustainable futures', '10.1016/j.cosust.2017.04.004', (119,)), ('Building Research and Information', 'City futures: Exploring urban retrofit and sustainable transitions', '10.1080/09613218.2013.805063', (116,)), ('Landscape and Urban Planning', 'The co-production of sustainable future scenarios', '10.1016/j.landurbplan.2020.103744', (106,)), ('City', 'Telescopic urbanism and the poor', '10.1080/13604813.2013.812350', (106,)), ('Environment & Planning C: Government & Policy', 'Designing urban knowledge: Competing perspectives on energy and buildings', '10.1068/c0607j', (105,)), ('Housing, Theory and Society', 'Green Renovations: Intersections of Daily Routines, Housing Aspirations and Narratives of Environmental Sustainability', '10.1080/14036096.2011.606332', (101,)), ('Forests', 'How cities think: Knowledge co-production for urban sustainability and resilience', '10.3390/f8060203', (100,)), ('Ecology and Society', 'Plausible futures of a social-ecological system: Yahara watershed, Wisconsin, USA', '10.5751/ES-07433-200210', (94,)), ('Environmental Science and Policy', 'Co-production of knowledge-action systems in urban sustainable governance: The KASA approach', '10.1016/j.envsci.2013.09.014', (92,)), ('Futures', 'Imagineering city futures: The use of prospective through scenarios in urban planning', '10.1016/j.futures.2011.05.005', (86,)), ('Futures', 'The reflective futures practitioner: Balancing salience, credibility and legitimacy in generating foresight knowledge with stakeholders', '10.1016/j.futures.2014.10.006', (77,)), ('Renewable and Sustainable Energy Reviews', 'Stimulating urban transition and transformation to achieve sustainable and resilient cities', '10.1016/j.rser.2018.06.003', (76,)), ('Technological Forecasting and Social Change', 'Community foresight for urban sustainability: Insights from the Citizens Science for Sustainability (SuScit) project', '10.1016/j.techfore.2010.09.002', (73,)), ('Ecosystems', 'Nutrient vectors and riparian processing: A review with special reference to African semiarid savanna ecosystems', '10.1007/s10021-007-9092-1', (68,)), ('Building Research and Information', 'Scaling up: The challenges of urban retrofit', '10.1080/09613218.2013.812432', (68,)), ('Urban Studies', 'The price premium for green-labelled housing: Evidence from China', '10.1177/0042098016668288', (66,)), ('Futures', 'Cities of the imagination: Science fiction, urban space, and community engagement in urban planning', '10.1016/j.futures.2011.01.005', (63,)), ('Sustainability', 'Serious gaming for climate adaptation—assessing the potential and challenges of a digital serious game for urban climate adaptation', '10.3390/su12051789', (63,)), ('Technological Forecasting and Social Change', 'Urban retrofitting: Identifying disruptive and sustaining technologies using performative and foresight techniques', '10.1016/j.techfore.2013.08.027', (60,))]
15-3	Governance	144	2018.13	transitions energy grassroots transition innovation commons governance socio infrastructures infrastructure	[('Environment and Planning A', 'Conceptualizing the political ecology of urban infrastructures: Insights from technology and urban studies', '10.1068/a4145', (320,)), ('Sustainability', 'Reconfiguring urban sustainability transitions, analysing multiplicity', '10.3390/su9020299', (166,)), ('Environmental Innovation and Societal Transitions', 'Geographies of transition—From topical concerns to theoretical engagement: A commentary on the transitions research agenda', '10.1016/j.eist.2019.11.002', (159,)), ('Urban Studies', 'The Interplay of Urban Energy Policy and Socio-technical Transitions: The Eco-cities of Graz and Freiburg in Retrospect', '10.1177/0042098013500360', (152,)), ('Geography Compass', 'Energy democracy: Mapping the debate on energy alternatives', '10.1111/gec3.12321', (143,)), ('Journal of Rural Studies', 'Conceptualizing rural energy transitions: Energizing rural studies, ruralizing energy research', '10.1016/j.jrurstud.2019.12.011', (131,)), ('Energy Policy', 'Struggle over energy transition in Berlin: How do grassroots initiatives affect local energy policy-making?', '10.1016/j.enpol.2014.11.001', (128,)), ('Urban Sustainability Transitions', 'Urban sustainability transitions', '10.4324/9781315228389', (122,)), ('Environmental Innovation and Societal Transitions', 'Sustainable urban development and the multi-Level transition perspective', '10.1016/j.eist.2012.07.001', (120,)), ('International Journal of Urban and Regional Research', 'Urban governance and the transition of energy systems: Institutional change and shifting energy and climate policies in Berlin', '10.1111/j.1468-2427.2007.00725.x', (119,)), ('Journal of Cleaner Production', 'Infrastructures, lock-in, and sustainable urban development: The case of waste incineration in the Göteborg Metropolitan Area', '10.1016/j.jclepro.2012.12.009', (112,)), ('Journal of Cleaner Production', 'Cities shaping grassroots niches for sustainability transitions: Conceptual reflections and an exploratory case study', '10.1016/j.jclepro.2016.08.044', (103,)), ('Environment and Planning A', 'Grassroots innovation for urban sustainability: Comparing the diffusion pathways of three ecovillage projects', '10.1068/a140250p', (96,)), ('Journal of Cleaner Production', 'Reclaiming the commons for urban transformation', '10.1016/j.jclepro.2012.12.020', (93,)), ('Journal of Cleaner Production', 'Organisation and governance of urban energy systems: District heating and cooling in the UK', '10.1016/j.jclepro.2012.11.018', (79,)), ('Energy Policy', 'Energy landscapes and urban trajectories towards sustainability', '10.1016/j.enpol.2017.01.009', (77,)), ('Urban Studies', 'Mobile transitions: Exploring synergies for urban sustainability research', '10.1177/0042098015583784', (72,)), ('Cool Cities: Urban Sovereignty and the Fix for Global Warming', 'Cool Cities: Urban Sovereignty and the Fix for Global Warming', 'NO DOI', (62,)), ('Energy Research and Social Science', 'Towards a novel regime change framework: Studying mobility transitions in public transport regimes in an Indian megacity', '10.1016/j.erss.2018.12.001', (62,)), ('Cities', 'Geographies of policy knowledge: The state and corporate dimensions of contemporary policy mobilities', '10.1016/j.cities.2017.01.001', (59,))]

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15-4	Governance	129	2016.80	students course learning education transdisciplinary university cbpr teaching curricula courses	[('Sustainability Science', 'From complex systems analysis to transformational change: A comparative appraisal of sustainability science projects', '10.1007/s11625-011-0148-y', (306,)), ('International Journal of Sustainability in Higher Education', 'Transdisciplinary case studies as a means of sustainability learning: Historical framework and theory', '10.1108/14676370610677829', (285,)), ('Journal of Urban Health', 'Challenges and facilitating factors in sustaining community-based participatory research partnerships: Lessons learned from the Detroit, New York City and Seattle Urban Research Centers', '10.1007/s11524-006-9110-1', (278,)), ('Sustainability Science', 'Achieving the promise of transdisciplinarity: a critical exploration of the relationship between transdisciplinary research and societal problem solving', '10.1007/s11625-014-0247-7', (180,)), ('Global Environmental Change', 'University partnerships for co-designing and co-producing urban sustainability', '10.1016/j.gloenvcha.2014.06.009', (176,)), ('Sustainability Science', 'The real type and ideal type of transdisciplinary processes: part II—what constraints and obstacles do we meet in practice?', '10.1007/s11625-015-0327-3', (156,)), ('Journal of Professional Issues in Engineering Education and Practice', 'Implementing sustainable development through problem-based learning: Pedagogy and practice', '10.1061/(ASCE)1052-3928(2003)129:4(216)', (154,)), ('Journal of Cleaner Production', 'Co-creating sustainability: Cross-sector university collaborations for driving sustainable urban transformations', '10.1016/j.jclepro.2012.11.047', (153,)), ('American journal of public health', 'Addressing Urban Health in Detroit, New York City, and Seattle Through Community-Based Participatory Research Partnerships', '10.2105/AJPH.93.5.803', (124,)), ('International Journal of Sustainability in Higher Education', 'Sustainability transdisciplinary education model: Interface of arts, science, and community (STEM)', '10.1108/14676371111098294', (109,)), ('Environment & Planning C: Government & Policy', 'Boundary work: Knowledge, policy, and the urban environment', '10.1068/c0606j', (102,)), ('Academy of Management Learning and Education', 'Overcoming silos: The role of an interdisciplinary course in shaping a sustainability network', '10.5465/AMLE.2010.53791827', (82,)), ('Development and Change', "Sustaining livelihoods on Mongolia's pastoral commons: Insights from a participatory poverty assessment", '10.1111/j.1467-7660.2004.00345.x', (78,)), ('Current Opinion in Environmental Sustainability', 'Learning while transforming: Solution-oriented learning for urban sustainability in Phoenix, Arizona', '10.1016/j.cosust.2015.07.001', (74,)), ('Futures', 'Managing group processes in transdisciplinary future studies: How to facilitate social learning and capacity building for self-organised action towards sustainable urban development?', '10.1016/j.futures.2014.08.012', (65,)), ('Progress in Planning', 'Educating planners in Europe: A review of 21st century study programmes', '10.1016/j.progress.2013.05.001', (64,)), ('International Journal of Sustainability in Higher Education', 'An experience-based learning framework: Activities for the initial development of sustainability competencies', '10.1108/IJSHE-04-2015-0065', (58,)), ('Atmospheric Environment', 'Aerosol particle mixing state, refractory particle number size distributions and emission factors in a polluted urban environment: Case study of Metro Manila, Philippines', '10.1016/j.atmosenv.2017.09.037', (56,)), ('American Journal of Community Psychology', 'Application of a CBPR Framework to Inform a Multi-level Tobacco Cessation Intervention in Public Housing Neighborhoods', '10.1007/s10464-011-9482-6', (55,)), ('International Journal of Sustainability in Higher Education', 'Transdisciplinary learning and teaching as answers to urban sustainability challenges', '10.1108/IJSHE-04-2015-0078', (54,))]
15-11	Governance	51	2016.76	legal housing right waste biomethane ride regularization statute hailing brazil	[('Social & Legal Studies', "Constructing the 'right to the city' in Brazil", '10.1177/0964663907076529', (240,)), ('Environmental Science and Policy', 'Designing a knowledge co-production operating space for urban environmental governance—Lessons from Rotterdam, Netherlands and Berlin, Germany', '10.1016/j.envsci.2016.01.010', (209,)), ('Housing, Theory and Society', "Young peoples' perceptions of housing tenure: A case study in the socialization of tenure prejudice", '10.1080/14036090051084423', (82,)), ('Planning and Housing in the Rapidly Urbanising World', 'Planning and housing in the rapidly urbanising world', '10.4324/9780203003992', (80,)), ('Health Promotion Journal of Australia', 'Culturally appropriate methods for enhancing the participation of Aboriginal Australians in health-promoting programs', '10.1071/he11027', (65,)), ('Journal of Cleaner Production', 'Transforming urban waste into sustainable material and energy usage: The case of Greater Manchester (UK)', '10.1016/j.jclepro.2012.11.046', (59,)), ('International Journal of Urban Sustainable Development', 'Ten years of the City Statute in Brazil: from the struggle for urban reform to the World Cup cities', '10.1080/19463138.2013.782706', (58,)), ('Environment & Planning C: Government & Policy', 'The challenge of governance in regional waste planning', '10.1068/c42m', (48,)), ('Research Policy', 'Governance for system optimization and system change: The case of urban waste', '10.1016/j.respol.2018.10.013', (41,)), ('Environmental and Climate Technologies', 'Waste-to-biomethane concept application: A case study of Valmiera city in Latvia', '10.1515/rtuect-2015-0005', (22,)), ('International Development Planning Review', 'The ecology of citizenship: understanding vulnerability in urban Brazil', '10.3828/idpr.2017.3', (20,)), ('Sustainability', 'Multi-level perspective on sustainability transition towards nature-based solutions and co-creation in urban planning of belgrade, serbia', '10.3390/su13147576', (20,)), ('Sustainability', 'Social cost benefit analysis of operating compressed biomethane (CBM) transit buses in cities of developing nations: A case study', '10.3390/su11154190', (17,)), ('Planning Sustainable Cities Global Report On Human Settlements 2009', 'Planning sustainable cities global report on human settlements 2009', '10.4324/9781315541389', (17,)), ('Global Transitions', "Global transition, global risks, and the UN's sustainable development goals – A call for peace, justice, and political stability", '10.1016/j.glt.2023.06.002', (17,)), ('Journal of Business & Industrial Marketing', 'Sustainable housing development: the legitimacy-seeking perspective', '10.1108/JBIM-07-2020-0318', (14,)), ('International Development Policy', 'Accra's Decongestion Policy: Another Face of Urban Clearance or Bulldozing Approach?', '10.1163/9789004387942_010', (11,)), ('Energy Procedia', 'A Conceptual Methodology for Waste-to-biomethane Assessment in an Urban Environment', '10.1016/j.egypro.2016.09.002', (11,)), ('Urban Forum', 'Access to Land for the Urban Poor-Policy Proposals for South African Cities', '10.1007/s12132-010-9081-x', (10,)), ('Urban Development and Civil Society: The Role of Communities in Sustainable Cities', 'The state, the market and community: An analytical framework for community self-development', '10.4324/9781315071725-10', (10,))]

15-8	Governance	75	2016.68	greyfield infill housing melbourne owi greyfields australia redevelopment observatory precinct	[('Journal of Urban Technology', 'Liveable and Sustainable? Socio-Technical Challenges for Twenty-First-Century Cities', '10.1080/10630732.2012.626703', (106,)), ('Research Policy', 'Shaping selection environments for industrial catch-up and sustainability transitions: A systemic perspective on endogenizing windows of opportunity', '10.1016/j.respol.2018.10.002', (105,)), ('Built Environment', "Beyond greenfield and brownfield: The challenge of regenerating Australia's greyfield suburbs", '10.2148/benv.36.1.81', (105,)), ('Sustainability', 'Exploring the attitudes-action gap in household resource consumption: Does "Environmental Lifestyle" segmentation align with consumer behaviour?', '10.3390/su5031211', (103,)), ('Urban Policy and Research', "Understanding Infill: Towards New Policy and Practice for Urban Regeneration in the Established Suburbs of Australia's Cities", '10.1080/08111146.2013.877389', (81,)), ('Environment and Planning B: Planning and Design', 'Use of a collaborative GIS-based planning-support system to assist in formulating a sustainable-development scenario for Hervey Bay, Australia', '10.1068/b31109', (65,)), ('Sustainable Development', 'Low Carbon Innovation in China: From Overlooked Opportunities and Challenges to Transitions in Power Relations and Practices', '10.1002/sd.1588', (59,)), ('Energy Policy', "Demand contributors and driving factors of Singapore's aggregate carbon intensities", '10.1016/j.enpol.2020.111817', (42,)), ('Building Research and Information', 'Regenerating cities: Technological and design innovation for Australian suburbs', '10.1080/09613218.2013.803921', (34,)), ('Journal of Mechanical Engineering Research and Developments', 'The bus transportation issue and people satisfaction with public transport in Ho Chi Minh city', '10.26480/jmerd.01.2019.10.16', (33,)), ('Environment and Planning B: Planning and Design', 'A way forward for land-use planning to achieve policy goals by using spatial modelling scenarios', '10.1068/b3024', (32,)), ('Technology, Design and Process Innovation in the Built Environment', 'Technology, design and process innovation in the built environment', '10.4324/9780203928325', (30,)), ('Sustainable Cities and Society', 'Viability of public spaces in cities under increasing heat: A transdisciplinary approach', '10.1016/j.scs.2020.102215', (29,)), ('Lecture Notes in Geoinformation and Cartography', 'The online what if? Planning support system', '10.1007/978-3-642-37533-0_20', (28,)), ('Sustainability', 'Critical connections: The role of the built environment sector in delivering green cities and a green economy', '10.3390/su7079417', (27,)), ('Sustainability', 'Creating a national urban research and development platform for advancing urban experimentation', '10.3390/su13020530', (26,)), ('Environmental Modeling and Assessment', 'Spatial Validation of Land Use Change Models Using Multiple Assessment Techniques: A Case Study of Transition Potential Models', '10.1007/s10666-017-9564-4', (26,)), ('Energy and Buildings', 'Multiscale analysis and reduction measures of urban carbon dioxide budget based on building energy consumption', '10.1016/j.enbuild.2017.07.084', (24,)), ('Systems', 'Exploring intra-urban accessibility and impacts of pollution policies with an agent-based simulation platform: Gamirod', '10.3390/systems4010005', (24,)), ('Resilient Sustainable Cities: A Future', 'The challenges to urban sustainability and resilience', '10.4324/9780203593066', (21,))]
15-10	Governance	65	2016.63	knowledge production just citylabs science housing justice partnership cape crisis	[('The Age of Sustainability: Just Transitions in a Complex World', 'The age of sustainability: Just transitions in a complex World', '10.4324/9780429057823', (65,)), ('Local Environment', 'Beyond critique: the value of co-production in realising just cities?', '10.1080/13549839.2017.1297389', (64,)), ('International Journal of Knowledge-Based Development', 'Urban knowledge exchange: Devilish dichotomies and active intermediation', '10.1504/IJKBD.2010.032583', (63,)), ('Current Opinion in Environmental Sustainability', 'CityLab reflections and evolutions: nurturing knowledge and learning for urban sustainability through co-production experimentation', '10.1016/j.cosust.2019.05.008', (47,)), ('After Sustainable Cities?', 'After sustainable cities?', '10.4324/9780203074602', (45,)), ('Current Research in Environmental Sustainability', "Co-production outcomes for urban equality: Learning from different trajectories of citizens' involvement in urban change", '10.1016/j.crsust.2022.100179', (42,)), ('Co-producing Knowledge for Sustainable Cities: Joining Forces for Change', 'Co-producing knowledge for sustainable cities: Joining forces for change', '10.4324/9781315748030', (36,)), ('BMC Public Health', 'INTERACT: A comprehensive approach to assess urban form interventions through natural experiments', '10.1186/s12889-018-6339-z', (35,)), ('Politics and Governance', 'Organising for co-production: Local interaction platforms for urban sustainability', '10.17645/pag.v6i1.1228', (35,)), ('Indian Journal of Marine Sciences', 'Mangrove mapping and change detection around Mumbai (Bombay) using remotely sensed data', 'NO DOI', (32,)), ('Cities', "Brokering communities of knowledge and practice: Reflections on the African Centre for Cities' CityLab programme", '10.1016/j.cities.2013.02.002', (29,)), ('Development in Practice', 'Poverty elimination, north-south research collaboration, and the politics of participatory development', '10.1080/0961452022000037973', (27,)), ('Environment, Development and Sustainability', 'Urban development, environmental vulnerability and CRZ violations in India: impacts on fishing communities and sustainability implications in Mumbai coast', '10.1007/s10668-016-9779-6', (25,)), ('Scandinavian Journal of Public Health', 'Academic practice–policy partnerships for health promotion research: Experiences from three research programs', '10.1177/1403494814556926', (24,)), ('World Development', 'Mobilising urban knowledge in an infodemic: Urban observatories, sustainable development and the COVID-19 crisis', '10.1016/j.worlddev.2020.105295', (24,)), ('Futures', 'Lost in translation: A framework for analysing complexity of co-production settings in relation to epistemic communities, linguistic diversities and culture', '10.1016/j.futures.2019.102442', (21,)), ('Local Environment', 'Knowledge for just urban sustainability', '10.1080/13549839.2016.1233527', (20,)), ('Ecological Economics', 'Stuck in the middle with you: The role of bridging organisations in urban regeneration', '10.1016/j.ecolecon.2016.06.005', (20,)), ('Habitat International', 'Transnational linking of local governments: The consolidation of the Utrecht-León municipal partnership', '10.1016/j.habitatint.2008.10.015', (20,)), ('Cities', 'Fragmentation and urban knowledge: An analysis of urban knowledge exchange institutions', '10.1016/j.cities.2022.103917', (19,))]
16-6	Soil	61	2021.72	pb pollution zn cu metals cr cd heavy hms metal	[('Environmental Geochemistry and Health', 'Pollution indices as useful tools for the comprehensive evaluation of the degree of soil contamination–A review', '10.1007/s10653-018-0106-z', (767,)), ('Chemosphere', 'Pollution assessment of heavy metals in soils of India and ecological risk assessment: A state-of-the-art', '10.1016/j.chemosphere.2018.10.066', (453,)), ('Energies', 'Global indicators of sustainable development: Evaluation of the influence of the human development index on consumption and quality of energy', '10.3390/en13112768', (199,)), ('Catena', 'A geochemical survey of heavy metals in agricultural and background soils of the Isfahan industrial zone, Iran', '10.1016/j.catena.2014.05.003', (188,)), ('Journal of Cleaner Production', 'A robust fuzzy stochastic programming for sustainable procurement and logistics under hybrid uncertainty using big data', '10.1016/j.jclepro.2020.120640', (117,)), ('Chemosphere', 'Pollution, sources, and human health risk assessment of heavy metals in urban areas around industrialization and urbanization-Northwest China', '10.1016/j.chemosphere.2022.136396', (107,)), ('Journal of Cleaner Production', 'Strategies for reducing Cd concentration in paddy soil for rice safety', '10.1016/j.jclepro.2021.128116', (85,)), ('Sustainability', 'Renewable energy deployment and covid-19 measures for sustainable development', '10.3390/su13084418', (75,)), ('Environmental Geochemistry and Health', 'Ecological risk assessment and source apportionment of heavy metals contamination: an appraisal based on the Tellus soil survey', '10.1007/s10653-020-00787-w', (66,)), ('Environment International', "Potentially toxic metals and the risk to children's health in a coal mining city: An investigation of soil and dust levels, bioaccessibility and blood lead levels", '10.1016/j.envint.2020.105788', (66,)), ('International Journal of Hydrogen Energy', 'Potentialities of hydrogen production in Algeria', '10.1016/j.ijhydene.2008.06.050', (63,)), ('Scientific Reports', 'Soil heavy metal contamination assessment in the Hun-Taizi River watershed, China', '10.1038/s41598-020-65809-0', (45,)), ('Environmental Research', 'Evaluation of heavy metal contamination levels in river sediments and their risk to human health in urban areas: A case study in the Matanza-Riachuelo Basin, Argentina', '10.1016/j.envres.2021.110979', (41,)), ('Environmental Geochemistry and Health', 'Active and legacy mining in an arid urban environment: challenges and perspectives for Copiapó, Northern Chile', '10.1007/s10653-016-9793-5', (38,)), ('Environmental Monitoring and Assessment', 'Assessment of heavy metal pollution in urban and peri-urban soil of Setif city (High Plains, eastern Algeria)', '10.1007/s10661-022-09781-4', (32,)), ('Energies', 'Addressing Multidimensional Energy Poverty Implications on Achieving Sustainable Development', '10.3390/en16093805', (30,)), ('Chemosphere', 'An alternative approach towards nitrification and bioremediation of wastewater from aquaponics using biofilm-based bioreactors: A review', '10.1016/j.chemosphere.2023.137849', (30,)), ('Ecotoxicology and Environmental Safety', 'A novel regional-scale human health risk assessment model for soil heavy metal(loid) pollution based on empirical Bayesian kriging', '10.1016/j.ecoenv.2023.114953', (27,)), ('Geoderma', 'Spatial distribution of lead concentration in peri-urban soil: Threshold and interaction effects of environmental variables', '10.1016/j.geoderma.2022.116193', (24,)), ('SN Applied Sciences', 'Assessment of pollution in roadside soils by using multivariate statistical techniques and contamination indices', '10.1007/s42452-019-0888-3', (24,))]
16-9	Soil	55	2019.33	coastal tourism land italy landscape tourist habitat mediterranean fluvisols capri	[('Environmental Management', 'The impact of Land Use/Land Cover Changes on land degradation dynamics: A Mediterranean case study', '10.1007/s00267-012-9831-8', (226,)), ('Landscape and Urban Planning', 'A landscape analysis of land cover change in the Municipality of Rome (Italy): Spatio-temporal characteristics and ecological implications of land cover transitions from 1954 to 2001', '10.1016/j.landurbplan.2010.12.002', (166,)), ('Land Use Policy', "The urban transformation of italy's adriatic coastal strip: Fifty years of unsustainability", '10.1016/j.landusepol.2013.10.001', (117,)), ('J. COASTAL RES.', 'Eastern Adriatic Coast (EAC): Geomorphology and Coastal Vulnerability of a Karstic Coast', '10.2112/JCOASTRES-D-12-00136.1', (81,)), ('Ocean and Coastal Management', 'Development of a Tourism Carrying Capacity Index (TCCI) for sustainable management of coastal areas in Mediterranean islands – Case study Naxos, Greece', '10.1016/j.ocecoaman.2021.105978', (73,)), ('SOIL', 'Climate and soil factors influencing seedling recruitment of plant species used for dryland restoration', '10.5194/soil-2-287-2016', (69,)), ('IForest', 'Land use inventory as framework for environmental accounting: An application in Italy', '10.3832/ifor0625-005', (49,)), ('Sustainability', 'Analysis of the accommodation density in coastal tourism areas of insular destinations from the perspective of overtourism', '10.3390/su11113031', (43,)), ('GeoJournal', 'Coastalization patterns in the Mediterranean: a spatiotemporal analysis of coastal urban sprawl in tourism destination areas', '10.1007/s10708-022-10756-8', (26,)), ('Scottish Geographical Journal', 'Desertification Risk, Long-Term Land-Use Changes and Environmental Resilience: A Case Study in Basilicata, Italy', '10.1080/14702541.2013.781209', (24,)), ('Journal of Land Use Science', 'Sustainable planning? first results in land uptakes in rural, natural and protected areas: The Lombardia case study (Italy)', '10.1080/1747423X.2010.481078', (24,)), ('Regional Science Inquiry', 'Urban sprawl in the mediterranean: Evidence from coastal medium-sized cities', 'NO DOI', (23,)), ('Ecological Modelling', 'A scenario-based approach to tackle trade-offs between biodiversity conservation and land use pressure in Central Italy', '10.1016/j.ecolmodel.2021.109533', (22,)), ('International Agrophysics', 'Analysis of soil capability versus land use change by using CORINE land cover and MicroLEIS', 'NO DOI', (21,)), ('Sustainability', 'Where land use changes occur: Using soil features to understand the economic trends in agricultural lands', '10.3390/su9010078', (20,)), ('Rendiconti Lincei', 'Urban expansion depletes cultural ecosystem services: an insight into a Mediterranean coastline', '10.1007/s12210-019-00866-w', (18,)), ('Ocean and Coastal Management', 'Urban development of the coastal system of the Italian largest islands: Sicily and Sardinia', '10.1016/j.ocecoaman.2016.12.008', (18,)), ('Landscape and Urban Planning', 'Monitoring land take by point sampling: Pace and dynamics of urban expansion in the Metropolitan City of Rome', '10.1016/j.landurbplan.2015.06.012', (18,)), ('Landscape and Ecological Engineering', 'Analysis of landscape spatial pattern changes in urban fringe area: a case study of Hunhe Niaodao Area in Shenyang City', '10.1007/s11355-021-00456-9', (18,)), ('Land Use Policy', 'A land-cover based urban dispersion indicator suitable for highly dispersed, discontinuously artificialized territories: The case of continental Portugal', '10.1016/j.landusepol.2019.03.048', (17,))]

16-3	Soil	156	2019.19	soil soils microbial organic technosols compost urban ecosystem carbon properties	[('Canadian Journal of Soil Science', 'The role of organic amendments in soil reclamation: A review', '10.4141/CJSS2010-064', (415,)), ('Journal of Soils and Sediments', 'Ecosystem services provided by soils of urban, industrial, traffic, mining, and military areas (SUITMAs)', '10.1007/s11368-014-0926-0', (303,)), ('European Journal of Soil Science', 'Urban soil and human health: a review', '10.1111/ejss.12518', (239,)), ('Science of the Total Environment, The', 'Drain blocking: An effective treatment for reducing dissolved organic carbon loss and water discolouration in a drained peatland', '10.1016/j.scitotenv.2006.02.010', (186,)), ('Geoderma', 'The ecosystem services of urban soils: A review', '10.1016/j.geoderma.2021.115076', (139,)), ('Journal of Soils and Sediments', 'Assessing bacterial diversity in soil : AAAA brief review', '10.1007/s11368-008-0043-z', (126,)), ('Landscape and Urban Planning', 'A method for soil environmental quality evaluation for management and planning in urban areas', '10.1016/j.landurbplan.2008.08.005', (110,)), ('Nature Ecology and Evolution', 'Soil biodiversity supports the delivery of multiple ecosystem functions in urban greenspaces', '10.1038/s41559-022-01935-4', (106,)), ('Current Opinion in Environmental Science and Health', 'Degradation in urban areas', '10.1016/j.coesh.2018.04.001', (103,)), ('Environmental Chemistry Letters', 'Biodiversity of urban soils for sustainable cities', '10.1007/s10311-018-0751-6', (103,)), ('Microbial Biotechnology', 'Soil and brownfield bioremediation', '10.1111/1751-7915.12840', (102,)), ('Nature Communications', 'Soil contamination in nearby natural areas mirrors that in urban greenspaces worldwide', '10.1038/s41467-023-37428-6', (93,)), ('Ecosystems', 'Ecosystem properties of urban land covers at the aboveground-belowground interface', '10.1007/s10021-008-9179-3', (82,)), ('Geoderma', 'Soil organic matter in urban soils: Estimation of elemental carbon by thermal oxidation and characterization of organic matter by solid-state C nuclear magnetic resonance (NMR) spectroscopy', '10.1016/j.geoderma.2005.02.004', (80,)), ('Applied Soil Ecology', 'Indicators of soil ecosystem services in conventional and organic arable fields along a gradient of landscape heterogeneity in southern Sweden', '10.1016/j.apsoil.2012.12.019', (78,)), ('Environmental Science and Pollution Research', 'Microbial biomass carbon and enzyme activities of urban soils in Beijing', '10.1007/s11356-011-0445-0', (69,)), ('Journal of Environmental Management', 'Carbon storage and fluxes in existing and newly created urban soils', '10.1016/j.jenvman.2012.03.024', (68,)), ('Science of the Total Environment, The', 'Nitrogen management in farming systems under the use of agricultural wastes and circular economy', '10.1016/j.scitotenv.2023.162666', (66,)), ('Science of the Total Environment, The', 'Reclamation of river dredged sediments polluted by PAHs by co-composting with green waste', '10.1016/j.scitotenv.2016.05.140', (64,)), ('Frontiers in Environmental Science', "A gardener's influence on urban soil quality", '10.3389/fenvs.2018.00025', (64,))]
16-1	Soil	221	2018.48	ca tillage soil crop weed nt agriculture conservation farmers ct	[('Philosophical Transactions of the Royal Society B: Biological Sciences', 'The role of conservation agriculture in sustainable agriculture', '10.1098/rstb.2007.2169', (1187,)), ('International Soil and Water Conservation Research', 'Conservation tillage impacts on soil, crop and the environment', '10.1016/j.iswcr.2015.05.002', (611,)), ('Journal of Agricultural Economics', 'Adoption of multiple sustainable agricultural practices in rural Ethiopia', '10.1111/1477-9552.12011', (559,)), ('The Journal of Agricultural Science', 'Paper Presented at International Workshop on Increasing Wheat Yield Potential, CIMMYT, Obregon, Mexico, 20-24 March 2006. Conservation agriculture: What is it and why is it important for future sustainable food production?', '10.1017/S0021859607006892', (466,)), ('Soil and Tillage Research', 'Evolution of the plow over 10,000 years and the rationale for no-till farming', '10.1016/j.still.2006.11.004', (453,)), ('Field Crops Research', 'Weed dynamics and conservation agriculture principles: A review', '10.1016/j.fcr.2015.07.012', (350,)), ('Soil and Tillage Research', 'Long-term impact of reduced tillage and residue management on soil carbon stabilization: Implications for conservation agriculture on contrasting soils', '10.1016/j.still.2006.08.006', (348,)), ('Environmental Evidence', 'How does tillage intensity affect soil organic carbon? A systematic review', '10.1186/s13750-017-0108-9', (342,)), ('Frontiers in Plant Science', 'Beyond conservation agriculture', '10.3389/fpls.2015.00870', (339,)), ('Soil Biology and Biochemistry', 'Three decades of soil microbial biomass studies in Brazilian ecosystems: Lessons learned about soil quality and indications for improving sustainability', '10.1016/j.soilbio.2009.08.020', (335,)), ('Food Security and Soil Quality', 'Conservation agriculture, improving soil quality for sustainable production systems?', '10.1201/EBK1439800577', (332,)), ('Agriculture, Ecosystems and Environment', 'Does conservation agriculture deliver climate change mitigation through soil carbon sequestration in tropical agro-ecosystems?', '10.1016/j.agee.2016.01.005', (324,)), ('Field Crops Research', 'Conservation agriculture in the dry Mediterranean climate', '10.1016/j.fcr.2012.02.023', (226,)), ('Soil and Tillage Research', 'Crop yield and weed management in rainfed conservation agriculture', '10.1016/j.still.2011.10.001', (223,)), ('Agronomy for Sustainable Development', 'Innovations in agronomy for food legumes. A review', '10.1007/s13593-011-0021-5', (178,)), ('Applied Soil Ecology', 'Soil microbial activity and crop sustainability in a long-term experiment with three soil-tillage and two crop-rotation systems', '10.1016/j.apsoil.2009.05.005', (178,)), ('Soil and Tillage Research', 'Agricultural management practices impacted carbon and nutrient concentrations in soil aggregates, with minimal influence on aggregate stability and total carbon and nutrient stocks in contrasting soils', '10.1016/j.still.2017.12.019', (169,)), ('Soil and Tillage Research', 'Effects of tillage systems on soil characteristics, glomalin and mycorrhizal propagules in a Chilean Ultisol', '10.1016/j.still.2005.06.004', (164,)), ('Renewable Agriculture and Food Systems', 'Conservation agriculture in Southern Africa: Advances in knowledge', '10.1017/S1742170513000550', (154,)), ('Bioresource Technology', 'Bioethanol from lignocellulosics: Status and perspectives in Canada', '10.1016/j.biortech.2009.10.098', (136,))]
16-10	Soil	54	2017.94	maya ancient archaeology archaeological settlement archaeologists tikal urbanism past classic	[('Journal of Archaeological Science', 'Airborne LiDAR, archaeology, and the ancient Maya landscape at Caracol, Belize', '10.1016/j.jas.2010.09.018', (383,)), ('Proceedings of the National Academy of Sciences of the United States of America', 'Uncovering archaeological landscapes at Angkor using lidar', '10.1073/pnas.1306539110', (281,)), ('Science', 'Pre-Columbian urbanism, anthropogenic landscapes, and the future of the Amazon', '10.1126/science.1159769', (238,)), ('Cities', 'Sustainable agrarian urbanism: The low-density cities of the Mayas and Aztecs', '10.1016/j.cities.2012.07.012', (138,)), ('Proceedings of the National Academy of Sciences of the United States of America', 'Water and sustainable land use at the ancient tropical city of Tikal, Guatemala', '10.1073/pnas.1202881109', (110,)), ('Biological Conservation', 'How pristine are tropical forests? An ecological perspective on the pre-Columbian human footprint in Amazonia and implications for contemporary conservation', '10.1016/j.biocon.2011.10.013', (97,)), ('Proceedings of the National Academy of Sciences of the United States of America', 'Forests, fields, and the edge of sustainability at the ancient Maya city of Tikal', '10.1073/pnas.1408631111', (95,)), ('Cambridge Archaeological Journal', 'Sprawl, squatters and sustainable cities: Can archaeological data shed light on modern urban issues?', '10.1017/S0959774310000259', (86,)), ('PLoS ONE', 'Collapse and continuity: A multi-proxy reconstruction of settlement organization and population trajectories in the Northern Fertile Crescent during the 4.2kya Rapid Climate Change event', '10.1371/journal.pone.0244871', (62,)), ('Journal of Archaeological Research', 'Early Urbanism in Northern Mesopotamia', '10.1007/s10814-019-09136-7', (57,)), ('PLoS ONE', 'Long term population, city size and climate trends in the Fertile crescent: A first approximation', '10.1371/journal.pone.0152563', (54,)), ('Water History', 'The non-hierarchical development of complexity in the semitropics: Water and cooperation', '10.1007/s12685-010-0026-z', (48,)), ('Proceedings of the National Academy of Sciences of the United States of America', 'The persistence of ancient settlements and urban sustainability', '10.1073/pnas.2018155118', (47,)), ('Sustainability', 'Soil Security for Australia', '10.3390/su11123416', (40,)), ('Geomorphology', 'Enhanced zoogeomorphological processes in North Africa in thehuman-impacted landscapes of the Anthropocene', '10.1016/j.geomorph.2018.10.011', (37,)), ('Human Ecology', 'Water scarcity and the sustainability of a common pool resource institution in the urban Andes', '10.1007/s10745-009-9227-4', (33,)), ('Anthropocene Review', 'Distributed urban network systems in the tropical archaeological record: Toward a model for urban sustainability in the era of climate change', '10.1177/2053019620919242', (27,)), ('Archeological Papers of the American Anthropological Association', 'Diversity, resiliency, and IHOPE-Maya: Using the past to inform the present', '10.1111/apaa.12025', (27,)), ('Journal of Anthropological Archaeology', 'Imperial resource management at the ancient Maya city of Tikal: A resilience model of sustainability and collapse', '10.1016/j.jaa.2018.08.005', (23,)), ('Landscape Research', 'Integrating Archaeology and Landscape Analysis for the Cultural Heritage Management of a World War I Militarised Landscape: The German Field Defences in Antwerp', '10.1080/01426397.2012.754854', (23,))]
16-2	Soil	198	2017.67	land mediterranean athens socioeconomic metropolitan sprawl expansion rural peri demographic	[('Journal of Rural Studies', 'Pictures from the other side of the fringe: Urban growth and peri-urban agriculture in a post-industrial city (Toulouse, France)', '10.1016/j.jrurstud.2017.10.007', (319,)), ('Applied Geography', 'Beyond urban-rural dichotomy: Exploring socioeconomic and land-use processes of change in Spain (1991-2011)', '10.1016/j.apgeog.2014.09.005', (302,)), ('Cities', 'Planning, competitiveness and sprawl in the Mediterranean city: The case of Athens', '10.1016/j.cities.2009.12.011', (271,)), ('Ecological Indicators', 'Towards sustainable growth? A multi-criteria assessment of (changing) urban forms', '10.1016/j.ecolind.2017.01.008', (253,)), ('Cities', 'Peri-urbanization, illegal settlements and environmental impact in Mexico City', '10.1016/j.cities.2008.02.003', (189,)), ('GeoJournal', 'Urban sprawl and the ‘olive’ landscape: sustainable land management for ‘crisis’ cities', '10.1007/s10708-018-9848-5', (180,)), ('Science of the Total Environment, The', 'Do spatial patterns of urbanization and land consumption reflect different socioeconomic contexts in Europe?', '10.1016/j.scitotenv.2017.12.341', (176,)), ('Habitat International', 'Integrating resilience with urban sustainability in neglected neighborhoods: Challenges and opportunities of transitioning to decentralized water management in Mexico City', '10.1016/j.habitatint.2015.03.016', (171,)), ('Environmental Research', 'Linking trajectories of land change, land degradation processes and ecosystem services', '10.1016/j.envres.2015.11.030', (158,)), ('Journal of Arid Environments', 'Agricultural land use change and sustainable use of land resources in the mediterranean region of Turkey', '10.1006/jare.2002.1078', (144,)), ('Agriculture, Ecosystems and Environment', 'Principal land use changes anticipated in Europe', '10.1016/S0167-8809(97)00109-6', (138,)), ('Cities', "Beyond a 'side street story'? Naples from spontaneous centrality to entropic polycentricism, towards a 'crisis city'", '10.1016/j.cities.2015.11.025', (137,)), ('Area', 'Land degradation in Mediterranean urban areas: An unexplored link with planning?', '10.1111/j.1475-4762.2012.01083.x', (129,)), ('Habitat International', 'Changes in city vertical profile as an indicator of sprawl: Evidence from a Mediterranean urban region', '10.1016/j.habitatint.2012.05.006', (124,)), ('Regional Studies', 'Patterns of Sprawl: The Socioeconomic and Territorial Profile of Dispersed Urban Areas in Italy', '10.1080/00343404.2015.1009435', (119,)), ('European Planning Studies', 'The "New Urban Europe": Global Challenges and Local Responses in the Urban Century', '10.1080/09654313.2012.716243', (116,)), ('Rendiconti Lincei', 'Towards a ‘polycentric’ landscape? Reconnecting fragments into an integrated network of coastal forests in Rome', '10.1007/s12210-015-0394-5', (116,)), ('Tijdschrift voor economische en sociale geografie', "Towards a Polycentric Region? The Socio-economic Trajectory of Rome, an 'Eternally Mediterranean' City", '10.1111/tesg.12054', (115,)), ('International Journal of Environmental Research', 'Urbanisation and land take of high quality agricultural soils - Exploring long-term land use changes and land capability in Northern Italy', 'NO DOI', (114,)), ('Journal of Arid Environments', 'The case of urban sprawl in Spain as an active and irreversible driving force for desertification', '10.1016/j.jaridenv.2012.10.014', (114,))]

16-8	Soil	56	2017.43	health polycentric children polycentricity silk informal pur public tourism centralities	[('Journal of Urban Health', 'Urban environmental health hazards and health equity', '10.1007/s11524-007-9171-9', (148,)), ('Public Health', 'Social determinants and lifestyles: integrating environmental and public health perspectives', '10.1016/j.puhe.2016.09.019', (119,)), ('Regional Studies', 'European planning and the polycentric consensus: Wishful thinking?', '10.1080/00343400701874206', (68,)), ('Basic Environmental Health', 'Basic Environmental Health', '10.1093/acprof:oso/9780195135589.001.0001', (50,)), ('Science of the Total Environment, The', 'Healthy buildings for a healthy city: Is the public health evidence base informing current building policies?', '10.1016/j.scitotenv.2020.137146', (43,)), ('European Journal of Spatial Development', 'Planning for agglomeration economies in a polycentric region: Envisioning an efficient metropolitan core area in Flanders', '10.30689/EJSD2018:69.1650-9544', (39,)), ('Geografisk Tidsskrift', 'Changes to urban form and commuting patterns: trends in two Danish city regions', '10.1080/00167223.2015.1060864', (39,)), ('Health Promotion International', 'An ecological public health approach to understanding the relationships between sustainable urban environments, public health and social equity', '10.1093/heapro/dat028', (38,)), ("International Journal of Children's Rights", "Children's Rights and the Crisis of Rapid Urbanisation: Exploring the United Nations Post 2015 Sustainable Development Agenda and the Potential Role for UNICEF's Child Friendly Cities Initiative", '10.1163/15718182-02302007', (36,)), ('Water (Switzerland)', 'Development of a universal water quality index (UWQI) for South African river catchments', '10.3390/W12061534', (32,)), ('The Routledge Handbook of Planning for Health and Well-Being: Shaping a Sustainable and Healthy Future', 'The Routledge handbook of planning for health and well-being: Shaping a sustainable and healthy future', '10.4324/9781315728261', (32,)), ('European Journal of Spatial Development', 'Unpacking polycentricity at the city-regional scale: Insights from Dusseldorf and Stockholm', 'NO DOI', (30,)), ('International Journal of Housing Markets and Analysis', 'Exploring social interactions and sense of community in multi-owned properties', '10.1108/IJHMA-02-2015-0006', (30,)), ('Journal of Urban Planning and Development', "Urban Form and Travel Patterns by Commuters: Comparative Case Study of Wuhan and Xi'an, China", '10.1061/(ASCE)UP.1943-5444.0000417', (29,)), ('Environmental Monitoring and Assessment', 'Assessment of physico-chemical qualities and heavy metal concentrations of Umgeni and Umdloti Rivers in Durban, South Africa', '10.1007/s10661-013-3566-8', (29,)), ('European Countryside', 'Information and Communication Infrastructures and New Business Models in Rural Areas: The Case of Molise Region in Italy', '10.2478/euco-2019-0027', (26,)), ('Sustainability', 'Feasibility study on an evidence-based decision-support system for hospital site selection for an aging population', '10.3390/su7032730', (23,)), ('International Journal of Environmental Research and Public Health', 'Beginning a partnership with photovoice to explore environmental health and health inequities in minority communities', '10.3390/ijerph111111132', (23,)), ('PLoS ONE', "Belt and road initiative as a catalyst of infrastructure development: Assessment of resident's perception and attitude towards China-Pakistan Economic Corridor", '10.1371/journal.pone.0271243', (22,)), ('Agricultural and Food Economics', 'The spread of no-till in conservation agriculture systems in Italy: indications for rural development policy-making', '10.1186/s40100-019-0126-8', (21,))]
16-7	Soil	61	2017.25	soil microbiota mycorrhizal rhizobacteria amf plant pgpr logging microbial vam	[('Global Change Biology', 'Global change pressures on soils from land use and management', '10.1111/gcb.13068', (782,)), ('Agriculture, Ecosystems and Environment', 'Soil biodiversity for agricultural sustainability', '10.1016/j.agee.2006.12.013', (740,)), ('Nutrient Cycling in Agroecosystems', 'Land use change and soil organic carbon dynamics', '10.1007/s10705-007-9138-y', (426,)), ('International Journal of Molecular Sciences', 'Rhizosphere bacteria in plant growth promotion, biocontrol, and bioremediation of contaminated sites: A comprehensive review of effects and mechanisms', '10.3390/ijms221910529', (352,)), ('Agriculture, Ecosystems and Environment', 'Mycorrhizas and tropical soil fertility', '10.1016/j.agee.2006.03.011', (318,)), ('Frontiers in Microbiology', 'Mechanistic Insights of the Interaction of Plant Growth-Promoting Rhizobacteria (PGPR) With Plant Roots Toward Enhancing Plant Productivity by Alleviating Salinity Stress', '10.3389/fmicb.2020.01952', (192,)), ('Rhizosphere', 'Disease-suppressive compost enhances natural soil suppressiveness against soil-borne plant pathogens: A critical review', '10.1016/j.rhisph.2020.100192', (155,)), ('Mycorrhizae in Sustainable Agriculture', 'Vesicular-arbuscular mycorrhizae and cultural stresses', '10.2134/asaspecpub54.c4', (131,)), ('Plant and Soil', 'The effect of agricultural practices on the development of indigenous arbuscular mycorrhizal fungi. I. Field studies in an Indonesian ultisol', '10.1023/a:1014966801446', (126,)), ('New Phytologist', 'Bio-organic soil amendment promotes the suppression of Ralstonia solanacearum by inducing changes in the functionality and composition of rhizosphere bacterial communities', '10.1111/nph.18221', (125,)), ('Chemical and Biological Technologies in Agriculture', 'Soil microbiota manipulation and its role in suppressing soil-borne plant pathogens in organic farming systems under the light of microbiome-assisted strategies', '10.1186/s40538-020-00183-7', (107,)), ('Journal of Biogeography', 'Effect of selective logging on forest structure and nutrient cycling in a seasonally dry Brazilian Atlantic forest', '10.1111/j.1365-2699.2005.01453.x', (104,)), ('Agriculture, Ecosystems and Environment', 'Winter wheat cover cropping, VA mycorrhizal fungi and maize growth and yield', '10.1016/S0167-8809(97)00094-7', (83,)), ('IEEE Transactions on Geoscience and Remote Sensing', 'Novel adaptive histogram trend similarity approach for land cover change detection by using bitemporal very-high-resolution remote sensing images', '10.1109/TGRS.2019.2927659', (77,)), ('Frontiers in Microbiology', 'Subsoil arbuscular mycorrhizal fungi for sustainability and climate-smart agriculture: A solution right under our feet?', '10.3389/fmicb.2019.00744', (71,)), ('Land', 'Land-use changes in the canary archipelago using the CORINE data: A retrospective analysis', '10.3390/land9070232', (38,)), ('Agriculture, Ecosystems and Environment', 'The significance of vesicular-Arbuscular mycorrhizal fungal-soil macroinvertebrate interactions in agroecosystems', '10.1016/0167-8809(89)90085-6', (37,)), ('Science of the Total Environment, The', 'Simulating long-term carbon nitrogen and phosphorus biogeochemical cycling in agricultural environments', '10.1016/j.scitotenv.2020.136599', (30,)), ('Archives of Microbiology', 'Microbiome for sustainable agriculture: a review with special reference to the corn production system', '10.1007/s00203-021-02320-8', (26,)), ('Catena', 'Transforming jhum to plantations: Effect on soil microbiological and biochemical properties in the foot hills of North Eastern Himalayas, India', '10.1016/j.catena.2019.02.008', (25,))]
16-5	Soil	66	2016.20	landscape landscapes cultural linpan carpathian design rural historical heritage ecoregion	[('Landscape and Urban Planning', 'Why landscapes of the past are important for the future', '10.1016/j.landurbplan.2003.10.002', (1119,)), ('Landscape and Urban Planning', 'Trends in European cultural landscape development: Perspectives for a sustainable future', '10.1016/S0169-2046(99)00043-2', (352,)), ('Land Use Policy', 'Ecoregion-based conservation in the Carpathians and the land-use implications', '10.1016/S0264-8377(01)00039-4', (90,)), ('Land', 'Understanding land use and land cover dynamics from 1976 to 2014 in Yellow River Delta', '10.3390/land6010020', (44,)), ('Journal of Cleaner Production', 'The socio-cultural dimensions of community-based sustainability: Implications for transformational change', '10.1016/j.jclepro.2020.121933', (42,)), ('Environmental Science and Policy', '"The Good Life": Engaging the public with community-based carbon reduction strategies', '10.1016/j.envsci.2016.08.007', (41,)), ('International Journal of Remote Sensing', 'Land-cover changes and potential impacts on soil erosion in the nan watershed, Thailand', '10.1080/01431161.2010.512935', (33,)), ('HBRC Journal', 'Interactive architectural approach (interactive architecture): An effective and adaptive process for architectural design', '10.1016/j.hbrcj.2015.01.001', (26,)), ('Sustainability', "The spatial analysis and sustainability of rural cultural landscapes: Linpan settlements in China's Chengdu Plain", '10.3390/su11164431', (24,)), ('Urban Science', 'Nature Positive: Interrogating Sustainable Design Frameworks for Their Potential to Deliver Eco-Positive Outcomes', '10.3390/urbansci6020035', (21,)), ('Environmental Science and Engineering (Subseries: Environmental Science)', 'Maintaining cultural and natural biodiversity in the Carpathian mountain ecoregion: Need for an integrated landscape approach', '10.1007/978-3-642-12725-0_28', (21,)), ('Net-Positive Design and Sustainable Urban Development', 'Net-positive design and sustainable urban development', '10.4324/9780429290213', (18,)), ('Urban Forestry and Urban Greening', 'The path to resilience: Change, landscape aesthetics, and socio-cultural identity in rapidly urbanising contexts. The case of Cairo, Egypt', '10.1016/j.ufug.2021.127360', (16,)), ('Canadian Geographer', 'The UNESCO biosphere reserve program in Australia: Constraints and opportunities for localized sustainable development', '10.1111/j.0008-3658.2006.00128.x', (16,)), ('Landscape and Urban Planning', 'Time for change: The legacy of a Euro-Andean model of landscape versus the need for landscape connectivity', '10.1016/j.landurbplan.2015.02.002', (14,)), ('Sustainability', "Defining priority land covers that secure the livelihoods of urban and rural people in Ethiopia: A case study based on citizens' preferences", '10.3390/su10061701', (13,)), ('Regional Sustainability', 'Regional landscape transformation and sustainability of the rural homegarden agroforestry system in the Chengdu Plain, China', '10.1016/j.regsus.2022.04.001', (13,)), ('Sustainability', "Historical enquiry as a critical method in urban riverscape revisions: The case of Belgrade's confluence", '10.3390/su11041177', (12,)), ('Smart and Sustainable Built Environment', 'Net positive biophilic urbanism', '10.1108/SASBE-10-2015-0034', (11,)), ('Journal of Environmental Management', 'Beach vegetation as an indicator of human impacts in arid environments: Environmental conditions and landscape perception in the Canary Islands', '10.1016/j.jenvman.2019.03.096', (10,))]
16-4	Soil	74	2014.85	water coastal groundwater tourism tourist mediterranean aquifer lagoon supply gardens	[('Earth-Science Reviews', 'Mediterranean water resources in a global change scenario', '10.1016/j.earscirev.2011.01.006', (818,)), ('Geografiska Annaler, Series A', 'Impacts of tourism development on water demand and beach degradation on the island of Mallorca (Spain)', '10.1111/j.0435-3676.2003.00206.x', (130,)), ('Land Use Policy', 'Urban and tourist land use patterns and water consumption: Evidence from Mallorca, Balearic Islands', '10.1016/j.landusepol.2011.01.007', (127,)), ('Global Environmental Change', 'Global change effects on land management in the Mediterranean region', '10.1016/j.gloenvcha.2018.04.007', (107,)), ('Urban Geography', 'Urbanization and sustainable resource use: The case of garden watering in the metropolitan region of Barcelona', '10.2747/0272-3638.26.6.520', (93,)), ('Biological Conservation', 'Ecological complexity of wetlands within a river landscape', '10.1016/S0006-3207(97)00166-3', (88,)), ('International Journal of Hospitality Management', 'Mass tourism and water efficiency in the hotel industry: A case study', '10.1016/j.ijhm.2016.11.006', (88,)), ('Environmental Management', 'A vegetation-based method for ecological diagnosis of riverine wetlands', '10.1007/s002679910017', (80,)), ('Journal of Hydrology', 'The impact of reservoir construction and changes in land use and climate on ecosystem services in a large Mediterranean catchment', '10.1016/j.jhydrol.2020.125208', (65,)), ('International Journal of Urban and Regional Research', 'Atlantic Gardens in Mediterranean Climates: Understanding the Production of Suburban Natures in Barcelona', '10.1111/j.1468-2427.2012.01118.x', (58,)), ('Journal of Sustainable Tourism', 'Changing tourism patterns, capital accumulation, and urban water consumption in Mallorca, Spain: a sustainability fix?', '10.1080/09669582.2014.991397', (56,)), ('Annals of Regional Science', 'Scattered or polycentric? Untangling urban growth in three southern European metropolitan regions through exploratory spatial data analysis', '10.1007/s00168-016-0758-5', (53,)), ('Science of the Total Environment, The', 'Hydrogeological modelling for the watershed management of the Mar Menor coastal lagoon (Spain)', '10.1016/j.scitotenv.2019.01.375', (51,)), ('Journal of Hydrology', 'Groundwater dependence of coastal lagoons: The case of La Pletera salt marshes (NE Catalonia)', '10.1016/j.jhydrol.2017.07.034', (50,)), ('Wetlands Ecology and Management', 'Coastal and marine wetlands in Gulf St. Vincent, South Australia: Understanding their loss and degradation', '10.1023/A:1008481228129', (48,)), ('Science of the Total Environment, The', 'Impact and mitigation of global change on freshwater-related ecosystem services in Southern Europe', '10.1016/j.scitotenv.2018.09.228', (48,)), ('Regulated Rivers: Research and Management', 'Gross channel changes along the Durance river, southern France, over the last 100 years using cartographic data', '10.1002/(SICI)1099-1646(200003/04)16:2<141::AID-RRR574>3.0.CO;2-2', (44,)), ('Local Environment', 'When sustainable may not mean just: a critical interpretation of urban water consumption decline in Barcelona', '10.1080/13549839.2016.1233528', (38,)), ('Regional Environmental Change', 'Climate change and their impacts in the Balearic Islands: a guide for policy design in Mediterranean regions', '10.1007/s10113-021-01810-1', (37,)), ('Sustainability', 'Challenges and proposals for socio-ecological sustainability of the Tagus-Segura Aqueduct (Spain) under climate change', '10.3390/su9112058', (37,))]

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17-3	Logistics	139	2021.07	crowdshipping delivery crowd commerce logistics deliveries lockers online mile cdps	[('European Transport Research Review', 'Crowd logistics: an opportunity for more sustainable urban freight transport?', '10.1007/s12544-017-0256-6', (243,)), ('Transportation Research Part D: Transport and Environment', 'Evaluating the environmental impacts of online shopping: A behavioral and transportation approach', '10.1016/j.trd.2020.102223', (184,)), ('Sustainability', 'Public transport-based crowdshipping for sustainable city logistics: Assessing economic and environmental impacts', '10.3390/su11010145', (139,)), ('European Transport Research Review', 'Sustainable urban freight transport adopting public transport-based crowdshipping for B2C deliveries', '10.1186/s12544-019-0352-x', (135,)), ('Journal of Transport Geography', 'Parcel locker systems in a car dominant city: Location, characterisation and potential impacts on city planning and consumer travel access', '10.1016/j.jtrangeo.2018.06.022', (119,)), ('Transport Reviews', 'Impacts of online shopping on travel demand: a systematic review', '10.1080/01441647.2021.1961917', (110,)), ('Case Studies on Transport Policy', 'Acceptability of collection and delivery points from consumers’ perspective: A qualitative case study of Christchurch city', '10.1016/j.cstp.2017.10.009', (103,)), ('Journal of Cleaner Production', 'Shipping outside the box. Environmental impact and stakeholder analysis of a crowd logistics platform in Belgium', '10.1016/j.jclepro.2018.08.210', (100,)), ('Research in Transportation Economics', 'E-groceries: Sustainable last mile distribution in city planning', '10.1016/j.retrec.2019.100805', (89,)), ('Transportation Research Record', 'Crowdsourced urban package delivery: Modeling traveler willingness to work as crowdshippers', '10.3141/2610-08', (87,)), ('Transportation Research Procedia', 'Sustainable crowdshipping using public transport: A case study evaluation in Rome', '10.1016/j.trpro.2018.09.012', (83,)), ('Transportation Research Part A', 'Gamification design to foster stakeholder engagement and behavior change: An application to urban freight transport', '10.1016/j.tra.2018.08.028', (81,)), ('International Journal of Logistics Research and Applications', '‘‘Pony express’ crowdsourcing logistics for last-mile delivery in B2C e-commerce: an economic analysis', '10.1080/13675567.2020.1766428', (74,)), ('Economies', 'Mobility restrictions and e-commerce: Holistic balance in madrid centre during COVID-19 lockdown', '10.3390/economies9020057', (74,)), ('Transportation Research Part D: Transport and Environment', 'Urban form and last-mile goods movement: Factors affecting vehicle miles travelled and emissions', '10.1016/j.trd.2016.09.015', (69,)), ('Procedia Computer Science', 'An empirical agent-based simulation system for urban goods transport (MASS-GT)', '10.1016/j.procs.2018.04.021', (69,)), ('Computational Intelligence', 'A robust green traffic-based routing problem for perishable products distribution', '10.1111/coin.12240', (67,)), ('Research in Transportation Economics', 'Measuring the effects of an urban freight policy package defined via a collaborative governance model', '10.1016/j.retrec.2017.09.001', (63,)), ('Transportation Research Part D: Transport and Environment', 'The sharing economy and consumer preferences for environmentally sustainable last mile deliveries', '10.1016/j.trd.2021.102863', (61,)), ('Sustainable Cities and Society', 'Exploring opportunities of using the sharing economy in sustainable urban freight transport', '10.1016/j.scs.2021.102778', (61,))]
17-11	Logistics	68	2020.85	noise aircraft traffic sound ports speed aviation port toll pm	[('IEEE Transactions on Intelligent Transportation Systems', 'Parallel Transportation Systems: Toward IoT-Enabled Smart Urban Traffic Control and Management', '10.1109/TITS.2019.2934991', (334,)), ('Sustainable Cities and Society', 'The potential impacts of different traffic management strategies on air pollution and public health for a more sustainable city: A modelling case study from Dublin, Ireland', '10.1016/j.scs.2020.102229', (90,)), ('Transportation Science', 'Energy-efficient urban traffic management: A microscopic simulation-based approach', '10.1287/trsc.2014.0554', (75,)), ('IEEE Transactions on Control Systems Technology', 'Sustainable Model-Predictive Control in Urban Traffic Networks: Efficient Solution Based on General Smoothening Methods', '10.1109/TCST.2017.2699160', (58,)), ('Annual Reviews in Control', 'Ecological traffic management: A review of the modeling and control strategies for improving environmental sustainability of road transportation', '10.1016/j.arcontrol.2019.09.003', (51,)), ('Sustainable Cities and Society', 'A multi-class toll-based approach to reduce total emissions on roads for sustainable urban transportation', '10.1016/j.scs.2020.102435', (48,)), ('Sustainable Cities and Society', 'Swarm intelligence-based green optimization framework for sustainable transportation', '10.1016/j.scs.2021.102947', (46,)), ('Noise Mapping', 'The impact of environmental noise generated from ports: Outcome of MESP project', '10.1515/noise-2016-0002', (42,)), ('Journal of Environmental Sciences', 'Deciphering urban traffic impacts on air quality by deep learning and emission inventory', '10.1016/j.jes.2021.12.035', (42,)), ('Proceedings of the 26th International Congress on Sound and Vibration, ICSV 2019', "Port noise impact and citizens' complaints evaluation in rumble and mon acumen interreg projects", 'NO DOI', (37,)), ('IEEE Access', 'Post-Accident Cyberattack Event Analysis for Connected and Automated Vehicles', '10.1109/ACCESS.2022.3196346', (32,)), ('Applied Acoustics', 'CNOSSOS-EU coefficients for electric vehicle noise emission', '10.1016/j.apacoust.2023.109511', (31,)), ('Sustainable Cities and Society', 'Drone-Edge Coalesce for Energy-Aware and Sustainable Service Delivery for Smart City Applications', '10.1016/j.scs.2021.103505', (31,)), ('IEEE Transactions on Intelligent Transportation Systems', 'A Stigmergy-Based Analysis of City Hotspots to Discover Trends and Anomalies in Urban Transportation Usage', '10.1109/TITS.2018.2817558', (30,)), ('17th International Congress on Sound and Vibration 2010, ICSV 2010', 'Noise pollution management in ports: A brief review and the eu MESP project experience', 'NO DOI', (29,)), ('AIAA Scitech 2020 Forum', 'Sensitivity analysis of airport level environmental impacts to aircraft thrust, weight, and departure procedures', '10.2514/6.2020-1731', (29,)), ('Environmental Impact Assessment Review', 'Dynamic modeling for noise mapping in urban areas', '10.1016/j.eiar.2022.106864', (26,)), ('Journal of Transport Geography', 'Towards a holistic framework for road safety in Australia', '10.1016/j.jtrangeo.2008.04.004', (25,)), ('Sustainable Cities and Society', 'Sustainable vehicle routing problem on real-time roads: the restrictive inheritance-based heuristic algorithm', '10.1016/j.scs.2022.103682', (20,)), ('Air Quality, Atmosphere and Health', 'Assessment of the tools to monitor air pollution in the Spanish ports system', '10.1007/s11869-019-00684-x', (20,))]
17-6	Logistics	104	2020.63	logistics smart manufacturing cmfmcs freight pi internet sc transport delivery	[('Annals of Operations Research', 'Viable supply chain model: integrating agility, resilience and sustainability perspectives—lessons from and thinking beyond the COVID-19 pandemic', '10.1007/s10479-020-03640-6', (725,)), ('Transportation Research Procedia', 'Physical Internet Enabled Hyperconnected City Logistics', '10.1016/j.trpro.2016.02.074', (175,)), ('Journal of Cleaner Production', 'Degrowth: From theory to practice', '10.1016/j.jclepro.2012.06.022', (162,)), ('Transportation Research Procedia', 'New Opportunities and Challenges for City Logistics', '10.1016/j.trpro.2016.02.004', (143,)), ('International Journal of Operations and Production Management', 'Exploring the influence of big data on city transport operations: a Markovian approach', '10.1108/IJOPM-03-2015-0179', (139,)), ('Sustainable Cities and Society', 'Smart and sustainable logistics of Port cities: A framework for comprehending enabling factors, domains and goals', '10.1016/j.scs.2021.102801', (128,)), ('International Journal of Production Research', 'Smart city for sustainable urban freight logistics', '10.1080/00207543.2021.1893970', (91,)), ('International Journal of Production Research', 'Modelling and solution approaches for the interconnected city logistics', '10.1080/00207543.2016.1267412', (63,)), ('Science of the Total Environment, The', 'Trends in sustainable logistics in major cities in China', '10.1016/j.scitotenv.2019.136381', (48,)), ('Contemporary Readings in Law and Social Justice', 'Predictive control algorithms, real-world connected vehicle data, and smart mobility technologies in intelligent transportation planning and engineering', '10.22381/CRLSJ13220216', (45,)), ('IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC', 'Uncertainty in urban mobility: Predicting waiting times for shared bicycles and parking lots', '10.1109/ITSC.2013.6728210', (43,)), ('The Sociological Review', 'Sharing culture: On definitions, values, and emergence', '10.1177/0038026118758550', (43,)), ('Proceedings of the Annual Hawaii International Conference on System Sciences', 'Autonomous unmanned ground vehicles for urban logistics: Optimization of last mile delivery operations', 'NO DOI', (42,)), ('Sensors', 'A wireless sensor network for urban traffic characterization and trend monitoring', '10.3390/s151026143', (40,)), ('Energies', 'Smart sustainable city manufacturing and logistics: A framework for city logistics node 4.0 operations', '10.3390/en14248380', (37,)), ('The Lancet Regional Health - Western Pacific', 'Healthy cities initiative in China: Progress, challenges, and the way forward', '10.1016/j.lanwpc.2022.100539', (36,)), ('Transportation Research Part E: Logistics and Transportation Review', 'Hyperconnected urban fulfillment and delivery', '10.1016/j.tre.2020.102104', (36,)), ('Energies', 'Sustainable Urban Freight for Energy-Efficient Smart Cities—Systematic Literature Review', '10.3390/en16062617', (34,)), ('International Journal of Production Economics', 'A business and ICT architecture for a logistics city', '10.1016/j.ijpe.2009.05.021', (33,)), ('Sustainability', 'Sustainable waste management for a city multifloor manufacturing cluster: A framework for designing a smart supply chain', '10.3390/su13031540', (30,))]

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17-4	Logistics	122	2020.04	ucc logistics uccs consolidation freight criteria cl delivery fuzzy transport	[('Expert Systems with Applications', 'A novel hybrid MCDM model based on fuzzy DEMATEL, fuzzy ANP and fuzzy VIKOR for city logistics concept selection', '10.1016/j.eswa.2014.07.021', (275,)), ('Mathematical and Computer Modelling', 'A multi-criteria decision making approach for location planning for urban distribution centers under uncertainty', '10.1016/j.mcm.2010.07.023', (272,)), ('Transport Reviews', 'The Role of Urban Consolidation Centres in Sustainable Freight Transport', '10.1080/01441647.2012.688074', (232,)), ('Transportation Research Part D: Transport and Environment', 'Location selection of city logistics centers under sustainability', '10.1016/j.trd.2015.02.008', (230,)), ('Applied Mathematical Modelling', 'A hybrid approach integrating Affinity Diagram, AHP and fuzzy TOPSIS for sustainable city logistics planning', '10.1016/j.apm.2011.07.033', (203,)), ('Procedia - Social and Behavioral Sciences', 'A conceptual model for intermodal freight logistics centre location decisions', '10.1016/j.sbspro.2010.04.039', (124,)), ('European Transport Research Review', 'Picture fuzzy WASPAS method for selecting last-mile delivery mode: a case study of Belgrade', '10.1186/s12544-021-00501-6', (95,)), ('Transportation Research Part D: Transport and Environment', 'Sustainable decision making for joint distribution center location choice', '10.1016/j.trd.2017.07.001', (94,)), ('Transportation Research Procedia', 'Modelling city logistics using recent innovative technologies', '10.1016/j.trpro.2020.03.157', (77,)), ('Research in Transportation Economics', 'Planning with stakeholders: Analysing alternative off-hour delivery solutions via an interactive multi-criteria approach', '10.1016/j.retrec.2018.12.004', (71,)), ('Networks and Spatial Economics', 'Sustainability SI: Logistics Cost and Environmental Impact Analyses of Urban Delivery Consolidation Strategies', '10.1007/s11067-014-9235-9', (71,)), ('Sustainability', 'A stakeholder-based evaluation of the most suitable and sustainable delivery fleet for freight consolidation policies in the inner-city area', '10.3390/su11010124', (68,)), ('Sustainability', 'The location selection for roundabout construction using Rough BWM-Rough WASPAS approach based on a new Rough Hamy aggregator', '10.3390/su10082817', (67,)), ('International Journal of Sustainable Transportation', 'An urban consolidation center in the city of Copenhagen: A simulation study', '10.1080/15568318.2018.1503380', (61,)), ('Transportation Research Procedia', 'Is there Life after Subsidy for an Urban Consolidation Centre? An Investigation of the Total Costs and Benefits of a Privately-initiated Concept', '10.1016/j.trpro.2016.02.072', (53,)), ('Sustainability', 'The growth of e-commerce due to COVID-19 and the need for urban logistics centers using electric vehicles: Bratislava case study', '10.3390/su13105357', (52,)), ('Transport', 'Multi-stakeholder collaboration in urban freight consolidation schemes: Drivers and barriers to implementation', '10.3846/transport.2018.6593', (50,)), ('IEEE Transactions on Fuzzy Systems', 'A Dual Hesitant Fuzzy Sets-Based Methodology for Advantage Prioritization of Zero-Emission Last-Mile Delivery Solutions for Sustainable City Logistics', '10.1109/TFUZZ.2022.3164053', (46,)), ('Research in Transportation Economics', 'A two-step method to evaluate the Well-To-Wheel carbon efficiency of Urban Consolidation Centres', '10.1016/j.retrec.2017.04.001', (43,)), ('Transportation Research Part A', 'Sustainable urban logistics: What are we talking about?', '10.1016/j.tra.2019.10.002', (42,))]
17-8	Logistics	90	2019.79	uls underground freight metro rail logistics transportation passenger transport network	[('European Journal of Operational Research', 'Collaborative urban transportation: Recent advances in theory and practice', '10.1016/j.ejor.2018.04.037', (288,)), ('Transportation Research Part B', 'Planning and operating a shared goods and passengers on-demand rapid transit system for sustainable city-logistics', '10.1016/j.trb.2015.07.016', (178,)), ('Transport Policy', 'The integration of passenger and freight transport for first-last mile operations', '10.1016/j.tranpol.2020.10.009', (136,)), ('Sustainability', 'A scientometrics review on city logistics literature: Research trends, advanced theory and practice', '10.3390/su11102724', (94,)), ('Sustainable Cities and Society', 'Using system dynamics to analyze the development of urban freight transportation system based on rail transit: A case study of Beijing', '10.1016/j.scs.2019.101923', (90,)), ('Advances in Civil Engineering', 'Network Planning Method for Capacitated Metro-Based Underground Logistics System', '10.1155/2018/6958086', (72,)), ('Transportation Research Part B', 'Joint optimization of carriage arrangement and flow control in a metro-based underground logistics system', '10.1016/j.trb.2022.02.014', (70,)), ('Sustainability', 'The impact of underground logistics system on urban sustainable development: A system dynamics approach', '10.3390/su11051223', (63,)), ('Computers and Industrial Engineering', 'Hybrid optimization procedures applying for two-echelon urban underground logistics network planning: A case study of Beijing', '10.1016/j.cie.2020.106452', (63,)), ('Tunnelling and Underground Space Technology incorporating Trenchless', 'Planning and application of underground logistics systems in new cities and districts in China', '10.1016/j.tust.2021.103947', (53,)), ('Sustainability', 'A metro-based system as sustainable alternative for urban logistics in the era of e-commerce', '10.3390/su13084479', (50,)), ('Transport Policy', 'Burden or opportunity for modal shift? – Embracing the urban dimension of intermodal road-rail transport', '10.1016/j.tranpol.2017.06.004', (47,)), ('Sustainability', 'Smart urban planning: Evaluating urban logistics performance of innovative solutions and sustainable policies in the Venice Lagoon-The results of a case study', '10.3390/su11174580', (46,)), ('International Journal of Production Research', 'A preliminary prototyping approach for emerging metro-based underground logistics systems: operation mechanism and facility layout', '10.1080/00207543.2020.1844333', (45,)), ('European Journal of Operational Research', 'Scheduling shared passenger and freight transport on a fixed infrastructure', '10.1016/j.ejor.2022.07.043', (41,)), ('Tunnelling and Underground Space Technology incorporating Trenchless', 'Using a multi-objective programming model to validate feasibility of an underground freight transportation system for the Yangshan port in Shanghai', '10.1016/j.tust.2018.07.012', (38,)), ('Sustainability', 'How will digitalization change road freight transport? Scenarios tested in Sweden', '10.3390/su13010304', (37,)), ('Transport and Sustainability', 'The cargo tram: Current status and perspectives, the example of Brussels', '10.1108/S2044-994120140000006010', (37,)), ('Journal of Cleaner Production', 'Multi-period planning of integrated underground logistics system network for automated construction-demolition-municipal waste collection and parcel delivery: A case study', '10.1016/j.jclepro.2021.129760', (35,)), ('IEEE International Conference on Automation Science and Engineering', 'Automated evaluation of urban traffic congestion using bus as a probe', '10.1109/CoASE.2015.7294224', (32,))]
17-10	Logistics	69	2019.41	noise ophd transportation smart pamplona freight opd ohd pooling tourist	[('Current Pollution Reports', 'Noise Pollution and Urban Planning', '10.1007/s40726-018-0095-7', (139,)), ('Urban Studies', 'Sustainable soundscapes: Noise policy and the urban experience', '10.1080/00420980600972504', (120,)), ('Transportation Research Part D: Transport and Environment', 'Direct impacts of off-hour deliveries on urban freight emissions', '10.1016/j.trd.2016.10.013', (84,)), ('Transport Reviews', 'Shifting urban freight deliveries to the off-peak hours: a review of theory and practice', '10.1080/01441647.2016.1254691', (47,)), ('International Journal of Tourism Research', 'Using GPS Supported Speed Analysis to Determine Spatial Visitor Behaviour', '10.1002/jtr.1991', (40,)), ('Transportation Research Part E: Logistics and Transportation Review', 'Sustainable urban facility location: Minimising noise pollution and network congestion', '10.1016/j.tre.2017.09.005', (40,)), ('Sustainability', 'A theoretical research framework of future sustainable urban freight transport for smart cities', '10.3390/su12051975', (36,)), ('Sustainability', 'Noise estimation using road and urban features', '10.3390/su12219217', (33,)), ('Energies', 'Selecting freight transportation modes in last-mile urban distribution in pamplona (Spain): An option for drone delivery in smart cities', '10.3390/en14164748', (33,)), ('Sustainability', 'The influence of low-frequency noise pollution on the quality of life and place in sustainable cities: A case study from Northern Portugal', '10.3390/su71013920', (32,)), ('INTERFACES', 'The New York city off-hour delivery program: A business and community-friendly sustainability program', '10.1287/inte.2017.0929', (31,)), ('Sustainability', 'The sustainability dimensions in intelligent urban transportation: A paradigm for smart cities', '10.3390/su131910653', (29,)), ('Sustainability', 'City logistics as an imperative smart city mechanism: Scrutiny of clustered eu27 capitals', '10.3390/su13073641', (26,)), ('World Electric Vehicle Journal', 'Are battery-electric trucks for 24-hour delivery the future of city logistics?-A german case study', '10.3390/WEVJ11010016', (22,)), ('Technology Analysis & Strategic Management', 'Sustainable mobility transitions and the challenge of countervailing trends: The case of personal aeromobility', '10.1080/09537320802625330', (21,)), ('International Journal of Urban Sciences', 'London 2012: Changing delivery patterns in response to the impact of the Games on traffic flows', '10.1080/12265934.2014.929508', (21,)), ('ILS 2016 - 6th International Conference on Information Systems, Logistics and Supply Chain', 'Decision support system for collaborative freight transportation management: A tool for mixing traditional and green logistics', 'NO DOI', (18,)), ('IOP Conference Series: Earth and Environmental Science', 'Reviews on interrelationship between transportation and tourism: Perspective on sustainability of urban tourism development', '10.1088/1755-1315/447/1/012065', (17,)), ('Sustainability', 'Using combined bus rapid transit and buses in a dedicated bus lane to enhance urban transportation sustainability', '10.3390/su13063052', (15,)), ('Constructing Urban Space with Sounds and Music', 'Constructing urban space with sounds and music', 'NO DOI', (12,))]

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17-2	Logistics	196	2018.38	freight logistics transport uft stakeholders city goods authorities measures construction	[('Journal of Transport Geography', "Urban logistics - How can it meet policy makers' sustainability objectives?", '10.1016/j.jtrangeo.2004.11.002', (267,)), ('International Journal of Physical Distribution & Logistics Management', 'Research in urban logistics: a systematic literature review', '10.1108/IJPDLM-01-2016-0008', (220,)), ('Journal of Transport Geography', 'Stakeholder reactions to urban freight policy innovation', '10.1016/j.jtrangeo.2011.11.017', (185,)), ('Journal of Transport Geography', 'Challenges in urban freight transport planning - a review in the Baltic Sea Region', '10.1016/j.jtrangeo.2012.01.001', (181,)), ('Transportation Planning and Technology', "The impact of urban freight transport: A definition of sustainability from an actor's perspective", '10.1080/03081060802493247', (149,)), ('Expert Systems with Applications', 'GenCLOn: An ontology for city logistics', '10.1016/j.eswa.2012.03.068', (127,)), ('Transport Reviews', 'Objectives, methods and results of surveys carried out in the field of urban freight transport: An international comparison', '10.1080/0144164032000122343', (124,)), ('Journal of Cleaner Production', 'A fuzzy multi-criteria model for evaluating sustainable urban freight transportation operations', '10.1016/j.jclepro.2018.02.234', (100,)), ('Sustainable Cities and Society', 'Sustainable urban freight transport in megacities in emerging markets', '10.1016/j.scs.2017.03.011', (99,)), ('International Journal of Sustainable Transportation', "The 4 A's of sustainable city distribution: Innovative solutions and challenges ahead", '10.1080/15568318.2016.1196404', (93,)), ('Transport Policy', 'Assessing knowledge and awareness of the sustainable urban freight transport among Swedish local authority policy planners', '10.1016/j.tranpol.2014.01.004', (89,)), ('City Distribution and Urban Freight Transport: Multiple Perspectives', 'City distribution, a key element of the urban economy: Guidelines for practitioners', 'NO DOI', (88,)), ('Procedia - Social and Behavioral Sciences', 'A sustainable perspective on urban freight transport: Factors affecting local authorities in the planning procedures', '10.1016/j.sbspro.2010.04.031', (87,)), ('European Transport - Trasporti Europei', 'Urban freight transport from a local authority perspective-A literature review', 'NO DOI', (83,)), ('Transportation Research Part D: Transport and Environment', 'Analysis of the environmental impacts of unloading bays based on cellular automata simulation', '10.1016/j.trd.2017.03.020', (69,)), ('European Transport Research Review', 'Plan for sustainable urban logistics – comparing between Scandinavian and UK practices', '10.1007/s12544-017-0270-8', (66,)), ('Transportation Research Part A', 'The milk run revisited: A load factor paradox with economic and environmental implications for urban freight transport', '10.1016/j.tra.2013.04.001', (65,)), ('Transport Reviews', "Review of Road Hauliers' Measures for Increasing Transport Efficiency and Sustainability in Urban Freight Distribution", '10.1080/01441647.2013.763866', (63,)), ('Research in Transportation Economics', 'Improving urban freight transport sustainability: Policy assessment framework and case study', '10.1016/j.retrec.2017.08.005', (62,)), ('Transportation Research Procedia', 'Key Success Factors for City Logistics from the Perspective of Various Groups of Stakeholders', '10.1016/j.trpro.2016.02.011', (57,))]
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18-5	Greening	67	2020.54	pv roof roofs rooftop gr energy green panels building photovoltaic	[('Building and Environment', 'Modeling impacts of roof reflectivity, integrated photovoltaic panels and green roof systems on sensible heat flux into the urban environment', '10.1016/j.buildenv.2011.06.012', (214,)), ('Building and Environment', 'Towards a performance-based approach for multifunctional green roofs: An interdisciplinary review', '10.1016/j.buildenv.2020.107489', (74,)), ('Building and Environment', 'Assessment of the contributions of different flat roof types to achieving sustainable development', '10.1016/j.buildenv.2018.05.063', (59,)), ('Energy and Buildings', 'Variations in photovoltaic performance due to climate and low-slope roof choice', '10.1016/j.enbuild.2013.05.009', (57,)), ('Ecological Engineering', 'Soil microarthropod community dynamics in extensive green roofs', '10.1016/j.ecoleng.2013.04.012', (55,)), ('Transportation Research Part D: Transport and Environment', 'Influence of avenue trees on traffic pollutant dispersion in asymmetric street canyons: Numerical modeling with empirical analysis', '10.1016/j.trd.2017.10.014', (55,)), ('Journal of Cleaner Production', 'Spatiotemporal distribution of traffic emission based on wind tunnel experiment and computational fluid dynamics (CFD) simulation', '10.1016/j.jclepro.2020.124495', (54,)), ('Geoscientific Model Development', 'The GREENROOF module (v7.3) for modelling green roof hydrological and energetic performances within TEB', '10.5194/gmd-6-1941-2013', (50,)), ('Building and Environment', 'Urban green roofs to manage rooftop microclimates: A case study from Sydney, Australia', '10.1016/j.buildenv.2021.108673', (46,)), ('Sustainable Energy Technologies and Assessments', 'Green roofs and facades with integrated photovoltaic system for zero energy eco-friendly building – A review', '10.1016/j.seta.2023.103426', (44,)), ('Sustainable Cities and Society', 'Review on integrated photovoltaic-green roof solutions on urban and energy-efficient buildings in hot climate', '10.1016/j.scs.2022.103919', (44,)), ('Sustainable Cities and Society', 'Bi-level planning model of distributed PV-energy storage system connected to distribution network under the coordinated operation of electricity-carbon market', '10.1016/j.scs.2022.104347', (39,)), ('Sustainable Cities and Society', 'A systematic review of photovoltaic-green roof systems in different climatic conditions focusing on sustainable cities and societies', '10.1016/j.scs.2023.104813', (38,)), ('Israel Journal of Ecology and Evolution', 'Initial insights on the biodiversity potential of biosolar roofs: a London Olympic Park green roof case study', '10.1080/15659801.2015.1045791', (37,)), ('Building and Environment', 'Bio-solar green roofs increase solar energy output: The sunny side of integrating sustainable technologies', '10.1016/j.buildenv.2022.109703', (34,)), ('Buildings', 'Article multi-criteria analysis of design solutions in architecture and engineering: Review of applications and a case study', '10.3390/BUILDINGS9120244', (32,)), ('Atmospheric Pollution Research', 'Simulation and assessment of traffic pollutant dispersion at an urban signalized intersection using multiple platforms', '10.1016/j.apr.2021.101087', (28,)), ('Building and Environment', 'Green strategies for improving urban microclimate and air quality: A case study of an Italian industrial district and facility', '10.1016/j.buildenv.2023.110762', (27,)), ('Urban Forestry and Urban Greening', 'Towards the design of biodiverse green roofs in Argentina: Assessing key elements for different functional groups of arthropods', '10.1016/j.ufug.2021.127107', (26,)), ('Energies', 'Evaluating the impact of energy efficiency building codes for residential buildings in the GCC', '10.3390/en14238088', (24,))]
18-1	Greening	216	2020.50	vgs vertical walls wall greening green greenery façades building thermal	[('Renewable and Sustainable Energy Reviews', 'Green wall systems: A review of their characteristics', '10.1016/j.rser.2014.07.203', (509,)), ('Building and Environment', 'Cost-benefit analysis for green façades and living wall systems', '10.1016/j.buildenv.2013.08.012', (320,)), ('Energy and Buildings', 'Comparative life cycle analysis for green façades and living wall systems', '10.1016/j.enbuild.2011.09.010', (279,)), ('Building and Environment', 'Green façades to control wall surface temperature in buildings', '10.1016/j.buildenv.2017.12.002', (155,)), ('Journal of Cleaner Production', 'A review of climate change implications for built environment: Impacts, mitigation measures and associated challenges in developed and developing countries', '10.1016/j.jclepro.2018.11.128', (135,)), ('Urban Ecosystems', 'Vertical greening systems, a process tree for green façades and living walls', '10.1007/s11252-012-0262-3', (127,)), ('Journal of Urban Technology', 'Vertical Greening Systems and Sustainable Cities', '10.1080/10630732.2015.1073900', (126,)), ('Building and Environment', 'A review of the impact of the green landscape interventions on the urban microclimate of tropical areas', '10.1016/j.buildenv.2021.108190', (104,)), ('Energy and Built Environment', 'Global technological advancement and challenges of glazed window, facade system and vertical greenery-based energy savings in buildings: A comprehensive review', '10.1016/j.enbenv.2021.11.003', (100,)), ('Energy Procedia', 'The living walls as an approach for a healthy urban environment', '10.1016/j.egypro.2011.05.068', (96,)), ('Urban Forestry and Urban Greening', 'The impact of urban green infrastructure as a sustainable approach towards tropical micro-climatic changes and human thermal comfort', '10.1016/j.ufug.2018.05.008', (94,)), ('Building and Environment', 'Energy saving potential and life cycle environmental impacts of a vertical greenery system in Hong Kong: A case study', '10.1016/j.buildenv.2015.06.033', (88,)), ('Renewable and Sustainable Energy Reviews', 'A systematic review of the impact of green walls on urban comfort: temperature reduction and noise attenuation', '10.1016/j.rser.2022.112463', (82,)), ('Urban Forestry and Urban Greening', 'Is greening the building envelope economically sustainable? An analysis to evaluate the advantages of economy of scope of vertical greening systems and green roofs', '10.1016/j.ufug.2016.08.002', (79,)), ('Journal of Cleaner Production', 'Well-being, health and urban coherence-advancing vertical greening approach toward resilience: A design practice consideration', '10.1016/j.jclepro.2017.12.207', (69,)), ('Building and Environment', 'Green façades and in situ measurements of outdoor building thermal behaviour', '10.1016/j.buildenv.2017.03.041', (63,)), ('Building and Environment', 'Impact of green walls on ventilation and heat removal from street canyons: Coupling of thermal and aerodynamic resistance', '10.1016/j.buildenv.2022.108945', (63,)), ('Sustainable Cities and Society', 'Exploring the evapotranspirative cooling effect of a green façade', '10.1016/j.scs.2022.103822', (62,)), ('Applied Energy', 'Energy evaluations of an innovative multi-storey wooden near Zero Energy Building designed for Mediterranean areas', '10.1016/j.apenergy.2018.12.035', (61,)), ('Building Simulation', 'Thermal impact of the orientation and height of vertical greenery on pedestrians in a tropical area', '10.1007/s12273-019-0537-1', (59,))]
18-6	Greening	61	2020.44	greywater substrate substrates roofs roof media treatment green removal grey	[('Journal of Environmental Management', 'Effect of light intensity and nutrients supply on microalgae cultivated in urban wastewater: Biomass production, lipids accumulation and settleability characteristics', '10.1016/j.jenvman.2018.07.024', (122,)), ('Urban Forestry and Urban Greening', 'Review on the roles and effects of growing media on plant performance in green roofs in world climates', '10.1016/j.ufug.2017.02.006', (77,)), ('Journal of Cleaner Production', 'Green roof as an effective tool for sustainable urban development: An Australian perspective in relation to stormwater and building energy management', '10.1016/j.jclepro.2022.132561', (73,)), ('International Biodeterioration and Biodegradation', 'Greywater treatment by ornamental plants and media for an integrated green wall system', '10.1016/j.ibiod.2019.104792', (50,)), ('Water Science and Technology', 'On site experiments of the slanted soil treatment systems for domestic gray water', '10.2166/wst.2006.290', (48,)), ('Building Simulation', 'Thermal performance assessment of extensive green roofs investigating realistic vegetation-substrate configurations', '10.1007/s12273-018-0488-y', (47,)), ('Science of the Total Environment, The', 'Use of green roofs for greywater treatment: Role of substrate, depth, plants, and recirculation', '10.1016/j.scitotenv.2021.151004', (45,)), ('Ecological Engineering', 'Assessment of recycled or locally available materials as green roof substrates', '10.1016/j.ecoleng.2020.105966', (44,)), ('Journal of Environmental Management', 'Greywater as a sustainable source for development of green roofs: Characteristics, treatment technologies, reuse, case studies and future developments', '10.1016/j.jenvman.2021.112991', (41,)), ('Energy Conversion and Management', 'Emergy-based sustainability assessment of different energy options for green buildings', '10.1016/j.enconman.2015.04.072', (41,)), ('Forests', 'The removal efficiencies of several temperate tree species at adsorbing airborne particulate matter in urban forests and roadsides', '10.3390/f10110960', (39,)), ('Soil and Tillage Research', 'Research and implementation needs to mitigate greenhouse gas emissions from agriculture in the USA', '10.1016/j.still.2005.02.014', (38,)), ('Ecological Engineering', 'Effects of recycled glass and different substrate materials on the leachate quality and plant growth of green roofs', '10.1016/j.ecoleng.2017.12.013', (36,)), ('Environmental Science and Pollution Research', 'Risk assessment by percolation leaching tests of extensive green roofs with fine fraction of mixed recycled aggregates from construction and demolition waste', '10.1007/s11356-018-1703-1', (32,)), ('Water management', 'Effects of changing rainfall patterns on WSUD in Australia', '10.1680/wama.10.00115', (32,)), ('Journal of Building Engineering', 'Passive action strategies in schools: A scientific mapping towards eco-efficiency in educational buildings', '10.1016/j.jobe.2021.103598', (32,)), ('Water Science and Technology', 'Evaluation of appropriate technologies for grey water treatments and reuses', '10.2166/wst.2009.854', (30,)), ('Frontiers in Built Environment', 'Green roof substrates—A literature review', '10.3389/fbuil.2022.1019362', (28,)), ('Journal of Environmental Management', 'Evaluation of the influence of filter medium composition on treatment performances in an open-air green wall fed with greywater', '10.1016/j.jenvman.2021.113646', (28,)), ('Environmental Research', 'Insights into bioflocculation of filamentous cyanobacteria, microalgae and their mixture for a low-cost biomass harvesting system', '10.1016/j.envres.2021.111359', (22,))]

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18-3	Greening	100	2018.08	roof roofs green substrate species malaysia plant egrs extensive irrigation	[('HortScience', 'The role of extensive green roofs in sustainable development', '10.21273/hortsci.41.5.1276', (571,)), ('Urban Ecosystems', 'Initial agronomic performances of Mediterranean xerophytes in simulated dry green roofs', '10.1007/s11252-010-0124-9', (100,)), ('Ecological Indicators', 'Linking biodiversity indicators, ecosystem functioning, provision of services and human well-being in estuarine systems: Application of a conceptual framework', '10.1016/j.ecolind.2013.09.015', (95,)), ('Landscape and Urban Planning', 'Wildflower green roofs for urban landscaping, ecological sustainability and biodiversity', '10.1016/j.landurbplan.2014.01.004', (88,)), ('Australian Journal of Botany', 'Relative importance of transpiration rate and leaf morphological traits for the regulation of leaf temperature', '10.1071/BT15198', (80,)), ('Applied Energy', 'Use of rubber crumbs as drainage layer in green roofs as potential energy improvement material', '10.1016/j.apenergy.2011.11.051', (76,)), ('Plants People Planet', 'Succulent plant diversity as natural capital', '10.1002/ppp3.25', (54,)), ('Ecological Engineering', 'Some European green roof norms and guidelines through the lens of biodiversity: Do ecoregions and plant traits also matter?', '10.1016/j.ecoleng.2018.01.006', (52,)), ('Plant Biosystems', 'Ecological approach in selecting extensive green roof plants: A data-set of Mediterranean plants', '10.1080/11263504.2013.819819', (49,)), ('Landscape and Urban Planning', 'Functional diversity as a framework for novel ecosystem design: The example of extensive green roofs', '10.1016/j.landurbplan.2014.11.022', (48,)), ('Procedia Engineering', 'Benefits of a Modular Green Roof Technology', '10.1016/j.proeng.2016.08.673', (47,)), ('Sustainability', 'Do looks matter? A case study on extensive green roofs using discrete choice experiments', '10.3390/su10020309', (43,)), ('Sustainability', 'Retrofitting housing with lightweight green roof technology in Sydney, Australia, and Rio de Janeiro, Brazil', '10.3390/su7011081', (42,)), ('Urban Forestry and Urban Greening', 'Zoysia matrella cover rate and drought tolerance in adaptive extensive green roof systems', '10.1016/j.ufug.2013.07.006', (41,)), ('Sustainability', 'Urban integration of green roofs: Current challenges and perspectives', '10.3390/su132212378', (34,)), ('Ecological Engineering', 'Sedum—Annual plant interactions on green roofs: Facilitation, competition and exclusion', '10.1016/j.ecoleng.2017.07.034', (33,)), ('Sustainability', 'Green-roof: The role of community in the substitution of green-space toward sustainable development', '10.3390/su12041429', (29,)), ('Coatings', 'State-of-the-art green roofs: Technical performance and certifications for sustainable construction', '10.3390/coatings10010069', (26,)), ('Procedia Engineering', 'Evaluating the Thermal Performance of Retrofitted Lightweight Green Roofs and Walls in Sydney and Rio de Janeiro', '10.1016/j.proeng.2017.04.182', (25,)), ('Sustainability', 'Influence of solar reflectance and renewable energies on residential heating and cooling demand in sustainable architecture: A case study in different climate zones in Spain considering their urban contexts', '10.3390/su11236782', (22,))]
19-3	Tourism	53	2021.49	tourism overtourism venice tourists destinations tourist destination vm airbnb heritage	[('Overtourism: Issues, realities and solutions', 'Overtourism: Issues, realities and solutions', '10.1515/9783110607369', (242,)), ('Tourism Review', 'Destination management: a perspective article', '10.1108/TR-07-2019-0311', (117,)), ('Sustainability', 'Venice and overtourism: Simulating sustainable development scenarios through a tourism carrying capacity model', '10.3390/su12020512', (100,)), ('International Journal of Tourism Cities', 'Conceptualizing and contextualizing overtourism: the dynamics of accelerating urban tourism', '10.1108/IJTC-08-2019-0117', (69,)), ('Sustainability', '"The overwhelmed city": Physical and social over-capacities of global tourism in Venice', '10.3390/su11246937', (69,)), ('Sustainability', 'Reasons and consequences of overtourism in contemporary cities-Knowledge gaps and future research', '10.3390/su12051729', (64,)), ('European Journal of Innovation Management', 'Digital transformation in tourism: bibliometric literature review based on machine learning approach', '10.1108/EJIM-09-2022-0531', (53,)), ('Tourism in the City: Towards an Integrative Agenda on Urban Tourism', 'Venice reshaped? Tourist gentrification and sense of place', '10.1007/978-3-319-26877-4_18', (38,)), ('Sustainability', 'How overtourism threatens large urban areas: A case study of the city of Wrocław, Poland', '10.3390/su12051783', (33,)), ('Technological Forecasting and Social Change', 'Overtourism and sustainability: A bibliometric study (2018–2021)', '10.1016/j.techfore.2022.122285', (32,)), ('Sustainability', 'Combining social media and mobile positioning data in the analysis of tourist flows: A case study from Szeged, Hungary', '10.3390/su13052926', (26,)), ('Sustainability', 'Social Media in Sustainable Tourism Recovery', '10.3390/su14020760', (25,)), ('International Journal of Tourism Cities', 'Overtourism management competencies in Asian urban heritage areas', '10.1108/IJTC-08-2019-0143', (22,)), ('Tourism Recreation Research', 'Stakeholders' attitudes towards tools for sustainable tourism in historical cities', '10.1080/02508281.2021.1931774', (18,)), ('Journal of Sustainable Tourism', 'The consequences of being 'the Capital of Cool'. Creative entrepreneurs and the sustainable development of creative tourism in the urban context of Rotterdam', '10.1080/09669582.2020.1841780', (18,)), ('Tourism and Hospitality Management', 'NEGATIVE PERCEPTION OF THE LOCAL COMMUNITY TOWARDS TOURISM DEVELOPMENT', '10.20867/thm.30.1.2', (12,)), ('Problemy Ekorozwoju', 'Opportunities for the sustainable development of rural areas un Serbia', 'NO DOI', (12,)), ('Journal of Sustainable Tourism', 'Whose right to the city? An analysis of the mediatized politics of place surrounding alojamento local issues in Lisbon and Porto', '10.1080/09669582.2020.1849230', (11,)), ('Tourism Geographies', 'Urban tourism transitions: doughnut economics applied to sustainable tourism development', '10.1080/14616688.2023.2290009', (11,)), ('Geojournal of Tourism and Geosites', 'APPLICATIONS OF DIGITAL MODELS IN INTEGRATED MANAGEMENT IN SMART TOURIST CITIES: AQABA CITY OF JORDAN AS A CASE STUDY', '10.30892/gtg.40137-833', (10,))]

19-4	Tourism	52	2021.19	tourism heritage tourist kampong touristification airbnb overtourism gentrification porto cultural	[('Sustainability', 'Cultural heritage and urban tourism: Historic city centres under pressure', '10.3390/su9081346', (306,)), ('Sustainability', 'Barcelona, housing rent bubble in a tourist city. Social responses and local policies', '10.3390/su10062043', (121,)), ('Journal of Sustainable Tourism', 'Territorial tourism planning in Spain: from boosterism to tourism degrowth?', '10.1080/09669582.2019.1675073', (84,)), ('Sustainability', 'Urban transformations as an indicator of unsustainability in the P2P mass tourism phenomenon: The Airbnb Case in Spain through three case studies', '10.3390/su10082933', (76,)), ('Land Use Policy', 'Urban and rural destinations on Instagram: Exploring the influencers' role in #sustainabletourism', '10.1016/j.landusepol.2020.104915', (65,)), ('The Future of Airbnb and the Sharing Economy: The Collaborative Consumption of our Cities', 'The future of Airbnb and the sharing economy: The collaborative consumption of our cities', '10.21832/OSKAM6737', (46,)), ('Sustainability', 'The sharing economy and sustainability of Urban destinations in the (over)tourism context: The social capital theory perspective', '10.3390/su12062310', (39,)), ('Boletin de la Asociacion de Geografos Espanoles', 'The role of Airbnb creating a "new"-old city centre: Facts, problems and controversies in Porto', '10.21138/bage.2820', (39,)), ('Boletin de la Asociacion de Geografos Espanoles', 'Is there overtourism in Santiago de Compostela? Contributions for an ongoing debate', '10.21138/bage.2825', (30,)), ('Sustainability', 'An evaluation of the three pillars of sustainability in cities with high airbnb presence: A case study of the city of Madrid', '10.3390/su13063220', (30,)), ('International Journal of Tourism Cities', 'Urban tourism hypertrophy: who should deal with it? The case of Krakow (Poland)', '10.1108/IJTC-07-2018-0051', (28,)), ('Journal of Sustainable Tourism', 'Politicising platform-mediated tourism rentals in the digital sphere: Airbnb in Madrid and Barcelona', '10.1080/09669582.2020.1866585', (26,)), ('Sustainability', 'Culture and tourism in Porto City Centre: Conflicts and (Im)Possible solutions', '10.3390/su11205701', (21,)), ('Sustainability', 'Museums and coping with overtourism', '10.3390/su12052054', (19,)), ('Boletin de la Asociacion de Geografos Espanoles', 'Cultural tourism in cities post-COVID-19: A perspective and proposals for an alternative model', '10.21138/bage.3138', (18,)), ('ISPRS International Journal of Geo-Information', 'Utilizing urban geospatial data to understand heritage attractiveness in amsterdam', '10.3390/ijgi10040198', (15,)), ('Sustainability', 'Spatial techniques to visualize acoustic comfort along cultural and heritage routes for a world Heritage city', '10.3390/su70810264', (14,)), ('Sustainability', 'Population Decline and Urban Transformation by Tourism Gentrification in Kyoto City', '10.3390/su15032247', (14,)), ('Sustainability', 'Factors affecting time spent visiting heritage city areas', '10.3390/su10061824', (13,)), ('Investigaciones Geograficas (Spain)', 'Didactic use of GIS and Street View for Tourism Degree students: Understanding commercial gentrification in large urban destinations', '10.14198/INGEO2020.MYFM', (11,))]
19-1	Tourism	122	2018.46	tourism destination tourist tourists destinations residents cultural cities overtourism creative	[('Journal of Sustainable Tourism', 'Sustainable urban tourism: understanding and developing visitor pro-environmental behaviours', '10.1080/09669582.2014.912219', (306,)), ('International Journal of Contemporary Hospitality Management', 'A network perspective on managing stakeholders for sustainable urban tourism', '10.1108/09596110810873543', (283,)), ('Sustainable Development', 'Sustainable tourism development: How do destination stakeholders perceive sustainable urban tourism?', '10.1002/sd.384', (185,)), ('Journal of Sustainable Tourism', 'The effects of environmental and luxury beliefs on intention to patronize green hotels: the moderating effect of destination image', '10.1080/09669582.2015.1091467', (137,)), ('Journal of Cleaner Production', 'Influencing mechanism of tourist social responsibility awareness on environmentally responsible behavior', '10.1016/j.jclepro.2020.122565', (75,)), ('Sustainability', 'The what, where, and why of airbnb price determinants', '10.3390/su10124596', (73,)), ('Journal of Sustainable Tourism', 'Measuring the sustainability of tourism in manuel antonio and texel: A tourist perspective', '10.1080/09669580408667247', (66,)), ('Sustainability', "Residents' involvement in urban tourism planning: Opportunities from a smart city perspective", '10.3390/su10061852', (64,)), ('Journal of Sustainable Tourism', 'Sustainable tourism implementation in urban areas: a case study of London', '10.1080/09669582.2015.1115511', (63,)), ('Sustainability', 'Towards sustainable tourism development in urban areas: Case study on Bucharest as tourist destination', '10.3390/su70912709', (63,)), ('Sustainability', 'The discourse on sustainable urban tourism: The need for discussing more than overtourism', '10.3390/su11154228', (61,)), ('Sustainability', 'The influence of word of mouth on tourism destination choice: Tourist-resident relationship and safety perception among mainland Chinese Tourists Visiting Macau', '10.3390/su10072114', (59,)), ('Tourism Economics', 'Towards a sustainable urban tourism development in Europe: The role of benchmarking and tourism management information systems - A partial model of destination competitiveness', '10.1177/1354816616656247', (53,)), ('Geographical Journal', 'The Singapore River thematic zone: Sustainable tourism in an urban context', '10.1111/j.0016-7398.2004.00121.x', (52,)), ('Journal of Sustainable Tourism', 'Urban tourism: Perspectives on sustainability', '10.1080/09669589608667261', (46,)), ('Sustainability', 'Sustainable urban tourism: Reflections on the need for building-related indicators', '10.3390/su10061981', (45,)), ('Journal of Sustainable Tourism', 'The importance of collaboration and emotional solidarity in residents' support for sustainable urban tourism: case study Ho Chi Minh City', '10.1080/09669582.2020.1831520', (43,)), ('Current Issues in Tourism', 'Analysing trends in the spatio-temporal behaviour patterns of mainland Chinese tourists and residents in Hong Kong based on Weibo data', '10.1080/13683500.2019.1645096', (43,)), ('Tourism Planning and Development', 'Drivers of Success in Implementing Sustainable Tourism Policies in Urban Areas', '10.1080/21568316.2014.960599', (41,)), ('Journal of Sustainable Tourism', 'Waste minimisation supporting urban tourism sustainability: A mega-resort case study', '10.1080/09669589708667279', (37,))]
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