Special Issue

Materials Innovation and Waste Utilization for Sustainable Pavement Solutions: Advancements in Construction, Performance, and Maintenance

Message from the Guest Editor

This special issue aims to explore the intersection of innovation and waste utilisation in the context of sustainable pavement solutions, focusing on advancements in construction, performance, and maintenance. With a growing emphasis on sustainability in infrastructure development, there is a pressing need to explore novel approaches that not only enhance the longevity and performance of pavements but also address environmental concerns by utilising waste materials effectively. This issue seeks to gather cutting-edge research and innovative practices that demonstrate how waste materials can be repurposed and integrated into pavement construction processes, leading to improved durability, reduced environmental impact, and overall sustainability. This special issue will encompass a broad spectrum of topics, including laboratory investigations, numerical modeling, field trials, case studies, data collection and analysis, life cycle assessment and carbon neutralisation, as well as the application of artificial intelligence and machine learning in the context of innovative waste utilization for sustainable pavement solutions.

Guest Editor

Dr. Chaminda Gallage

School of Civil and Environmental Engineering, Faculty of Engineering, Queensland University of Technology, Brisbane, Australia

Deadline for manuscript submissions

10 September 2025

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/207682

Materials
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
materials@mdpi.com

mdpi.com/journal/materials

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/journal/materials

MDPI

About the Journal

Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

Editor-in-Chief

Prof. Dr. Maryam Tabrizian
1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Ei Compendex, CaPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

Journal Rank:

JCR - Q2 (Metallurgy and Metallurgical Engineering) / CiteScore - Q1 (Condensed Matter Physics)