Special Issue

Functional and Smart Materials for Buildings and Constructions

Message from the Guest Editors

For this Special Issue, authors are kindly invited to submit high-quality papers on one or more of the following topics related to the design of functional and smart materials and technologies for buildings and constructions:

- Development and design of sensing materials (external or internal stimuli)
- Development and design of functional materials (e.g. self-cleaning, self-healing, bio-cleaning, bio-based repair) for novel structures and cultural heritage protection
- Development of materials for reducing the concentration of health-relevant substances
- Development of energy-efficient buildings and constructions
- Smart design and manufacturing of novel materials for environmental protection
- Reuse and valorisation of waste materials through smart technologies and manufacturing
- Upgrade and valorisation of traditional technologies for buildings and constructions
- Development of new methods for characterisation of materials' functional properties

Papers addressing other related topics will also be considered.

Guest Editors

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Deadline for manuscript submissions

closed (31 October 2023)



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About the Journal

Message from the Editor-in-Chief

Current urban environments are home to multi-modal transit systems, extensive energy grids, a building stock, and integrated services. Sprawling neighborhoods are composed of buildings that accommodate living and working quarters. However, it is expected that the cities and communities of the future will face complex and enormous challenges, including maintenance, interconnectivity, resilience, energy efficiency, and sustainability issues, to name but a few. A smart city uses advanced technologies and a digital infrastructure to improve the outcomes in every aspect of a city's operations. A smart building optimizes the experience of occupants, staff, and management by using a modern and connected environment. Innovations in technology that can bring dramatic improvements to design, planning, and policy are critical in developing the cities and buildings of the future.

Editor-in-Chief

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 14.9 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the first half of 2025).