

Special Issue

Materials, Structures and Designs for Durable Roads

Message from the Guest Editors

The smartness and resilience of infrastructure are becoming increasingly ubiquitous. As important components of infrastructure, roads play an important role in achieving the goal of the entire infrastructure system. To obtain this enhanced durability and sustainability, in the past few decades, certain smart admixtures have been developed to make this material more intelligent. Thermochromic materials have been used in asphalt due to the advantages of the dynamic conversion of optical and thermal properties, which reversibly change color according to temperature, thereby dynamically adjusting the reflectivity of the asphalt to solar radiation. Ultraviolet-blocking materials can enhance the anti-ultraviolet aging ability of asphalt. Induction heating is used to enhance the engineering healing ability of asphalt mixtures. Warm and cold mixing technologies can reduce greenhouse gas emissions, thereby saving energy. Recycling technology and regeneration technology play an important role in realizing long-life pavement structures. In this Special Issue, the latest developments in these smart and durable road surfaces are discussed.

Guest Editors

Prof. Dr. Xu Yang

Dr. Lingyun You

Dr. Chonghui Wang

Prof. Dr. Mohd Rosli Hainin

Deadline for manuscript submissions

closed (31 May 2025)



Materials

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed



mdpi.com/si/193963

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

[mdpi.com/journal/
materials](https://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](https://mdpi.com/journal/materials)



About the Journal

Message from the Editorial Board

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.

Editors-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

Prof. Dr. Yuguang Ma

State Key Laboratory of Luminescent Materials and Devices, South China University of Technology, Guangzhou 510640, China

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)