



*materials*



an Open Access Journal by MDPI

## Materials Informatics and Machine Learning in Pavement Engineering

Guest Editors:

**Dr. Jin Li**

Lyles School of Civil Engineering,  
Purdue University, West  
Lafayette, IN, USA

**Dr. Gengren Hao**

National Key Laboratory of Green  
and Long-Life Road Engineering  
in Extreme Environment,  
Shenzhen University, Shenzhen  
518060, China

Deadline for manuscript  
submissions:

**20 October 2025**

### Message from the Guest Editors

Dear Colleagues,

We are pleased to announce this Special Issue, entitled "Material Informatics and Machine Learning in Pavement Engineering". This Special Issue aims to highlight innovative research at the intersection of material science, informatics, machine learning, and infrastructure engineering. We invite original research articles, reviews, and case studies that explore the use of material informatics and machine learning for the design, analysis, and maintenance of pavement systems. Topics of interest for this Special Issue include, but are not limited to, the predictive modeling of material properties, optimization of pavement materials, data-driven approaches for infrastructure health monitoring, and the integration of machine learning algorithms in material selection and performance prediction. This Special Issue seeks to provide a platform for interdisciplinary collaboration and to advance the application of cutting-edge informatics and analytic tools in enhancing the durability, sustainability, and safety of road pavement infrastructures.

Dr. Jin Li

Dr. Gengren Hao

*Guest Editors*



[mdpi.com/si/208097](https://mdpi.com/si/208097)

# Special Issue



an Open Access Journal by MDPI

## 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

## 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.

## 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)

## Contact Us

Materials Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/materials](http://mdpi.com/journal/materials)  
[materials@mdpi.com](mailto:materials@mdpi.com)  
[X@Materials\\_Mdpi](https://twitter.com/Materials_Mdpi)