

## Special Issue

# AI-Based Material Design, Performance Evaluation and Construction Quality Control of Asphalt Pavement

### Message from the Guest Editors

This Special Issue, entitled “AI-Based Material Design, Performance Evaluation and Construction Quality Control of Asphalt Pavement”, aims to gather original research papers related to the performance prediction and intelligent design of bituminous materials. The scope of this Special Issue includes, but is not limited to, the following topics:

- High-throughput computing and evaluation of asphalt/cement-based material;
- Genome encoding and AI-driven design of asphalt/cement-based material;
- Multi-physical/multi-scale characterization of asphalt/cement-based material;
- Mechanical inversion and reverse design of asphalt/cement-based material;
- ☒Intelligent construction and quality assessment of pavement structure;
- Intelligent monitoring and risk assessment technology of pavement structure;
- Green and sustainable materials design and durability assessment of pavements.

### Guest Editors

Dr. Xunhao Ding

Dr. Yanshun Jia

Dr. Wensheng Wang

Dr. Xiong Xiao

Dr. Bo Li

### Deadline for manuscript submissions

20 March 2026



## Materials

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## 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.

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### Editor-in-Chief

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