

Special Issue

Innovations in Sustainable Pavement Design: Advancing Recycled Materials for Low-Carbon Infrastructure

Message from the Guest Editors

The increasing demand for resilient, sustainable, and cost-effective pavement infrastructure necessitates innovative approaches to material selection, surface engineering, and design methodologies. This Special Issue focuses on advancing the use of recycled and alternative materials in pavement engineering to promote low-carbon infrastructure development. In addition to structural performance, emphasis is placed on surface treatments, protective coatings, and interface properties that enhance durability, adhesion, and long-term functionality. Contributions addressing surface-layer interactions, functional coatings, and applied surface science within the context of sustainable and circular pavement materials are particularly encouraged. We welcome submissions on topics including but not limited to:

- sustainable pavement design
- recycled materials
- low-carbon infrastructure
- geopolymer stabilization
- reclaimed asphalt pavement (RAP)
- alternative binders
- circular economy in construction
- life cycle assessment (LCA)
- durability and performance evaluation
- green road infrastructure
- surface treatments and modification
- protective and functional coatings
- interface performance

Guest Editors

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Deadline for manuscript submissions



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About the Journal

Message from the Editorial Board

Now more than ever, research is asked to deliver knowledge and technologies to solve the major challenges faced by our society. The development of new materials and devices for (without the ambition to be exhaustive) energy, health and food technology, together with the need for establishing processes that reduce the impact on critical resources and the environment, is indeed in the spotlight of most contemporary research. Surface science and engineering play a key role in this regard, with an incredible potential in delivering new and deep scientific understanding and technical solutions essential to solve most of the major societal challenges.

Coatings is a well-established, peerreviewed, online journal dedicated to the vibrant field of surface science and engineering. Coatings publishes original research articles that report cutting-edge results and review papers that make the point on the hottest research topics.

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