Special Issue

Advances in Resilient, Sustainable, and Functional Materials for Road Infrastructure

Message from the Guest Editors

Global challenges such as climate change, resource depletion, and the growing demand for efficient mobility require a shift in road infrastructure. To address these issues, researchers are actively exploring various technologies and strategies to integrate resilience, sustainability, and functional innovations into our road networks. An important focus is on creating resilient infrastructure that can withstand environmental stressors through the use of advanced materials and adaptive design principles. Moreover, sustainability is becoming increasingly important in the face of environmental concerns, with initiatives aimed at reducing the carbon footprint of road construction by utilizing recycled materials and adopting circular economy principles. This approach not only minimizes waste but also promotes the efficient use of resources. Furthermore, the integration of functional designs such as de-icing, health monitoring, and self-healing asphalt is being emphasized, with studies investigating their applications to optimize lifecycle management and enhance safety.

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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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