Special Issue

Sustainable Polymer Materials for Pavement Applications

Message from the Guest Editor

This Special Issue focuses on the latest advancements in sustainable polymer materials for pavement applications, highlighting their crucial role in developing next-generation road infrastructure.

Conventional pavement materials face limitations in durability, environmental impact, and adaptability to changing climate conditions. Sustainable polymer materials offer innovative solutions through enhanced mechanical properties, improved resistance to environmental degradation, and their reduced carbon footprint.

We particularly welcome contributions that including the multi-scale damage mechanisms and durability of polymer-modified composite pavements, thermoregulation via phase-change polymer composites, interface bonding and thermal compatibility in composite pavement–steel girder systems, and the optimization of polymer-stabilized or polymer-modified asphalt/aggregate structures for long-term performance.

This Special Issue provides a platform for interdisciplinary research bridging material science and civil engineering, offering both fundamental insights and practical solutions for sustainable, climate-resilient infrastructure.

Guest Editor

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Message from the Editor-in-Chief

Since its foundation in 2009, *Polymers* has developed into an internationally renowned, extremely successful open access journal. The editorial team and the editorial board dedicatedly combine open-access publishing and high-quality rigorous peer reviewing. The performance of the journal has proven this strategy to be well-suited and highly successful. This is reflected in the increasing impact factor of *Polymers*, the most recent one being 4.9.

I would like to invite you to contribute to the success of the journal by sending us your high quality research papers. We would be pleased to welcome you as one of our authors.

Editor-in-Chief

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