Special Issue

Multiscale–Multiphysics Modelling and Characterisation of Multiphase Polymer-Based Bituminous Materials

Message from the Guest Editors

Polymer materials (e.g., graphene, carbon nanotubes (CNTs), antioxidants, rubber, lignin, epoxy, rejuvenators, biomass, waste plastics, etc.) are increasingly being applied to the bituminous materials to improve the durability and the recycling of materials. This Special Issue welcomes submissions with respect to multiscale–multiphysics modelling and characterisation for the polymer-based bituminous materials. The topics of interest include but are not limited to:

- Quantum mechanics/chemistry, density functional theory (DFT) calculation, and molecular dynamics (MD) simulations for understanding the modification mechanisms of polymer-based bitumen;
- Chemo-mechanical modelling and microscopic characterisation for polymer-based asphalt recycling;
- Constitutive modelling for viscoelasticity, viscoplasticity, damage, and fracture for predicting the fundamental mechanical performance of polymer-based asphalt;
- Multiscale and multiphysics modelling for the durability, resilience and sustainability of polymer-based bituminous materials.

Guest Editors

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Deadline for manuscript submissions

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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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