Special Issue

Fracture Mechanics of Soft Polymer Composites and Polymeric Advanced Materials

Message from the Guest Editors

Soft polymer composites and polymeric advanced materials are widespread in engineered materials and as the basic building blocks of many biological tissues. Despite the differences, their structured molecular networks share common fundamental mechanical principles. Entropy controls the behavior of classical polymeric networks, wherein stored mechanical energy is mainly determined by the network configuration. On the other hand, significant enthalpic contributions and bending-related deformation are relevant in biopolymers. The features have sparked the interest of material scientists in the fracture mechanics of soft polymer composites, and polymeric advanced materials. Cutting-edge applications concern the development of bioinspired materials, design of tough hydrogels and polymeric composites with improved fatigue properties, and optimization of 3D printing technologies. This is a field where experiments, fundamental principles of chemistry and physics, and computer simulations must go hand in hand. Contributions that focus on innovative applications, as well as experimental and computational approaches bridging different spatial and temporal scales, are encouraged.

Guest Editors

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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 4.7.

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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