

## Special Issue

# High Performance Polymeric Composite Foam: Design, Processing and Properties

### Message from the Guest Editors

In this Special Issue, we present a collection of papers regarding the design, processing, and properties of high-performance polymeric composite foams. Polymer composites are defined as composites with a polymer matrix, and that incorporate fillers that are shown in the micro/nano scale in at least one dimension. Polymer composites normally exhibit high mechanical performance and multifunctionality compared with neat polymers. Polymer composites can be used to create micro- and nanoporous foams, which are an intriguing class of materials that are lightweight, energy-saving, can act as thermal insulation and sound barriers, and have specific mechanical properties due to their excellent foamability. Nowadays, polymeric composite foams are widely used in the fields of automobiles, building and construction, packaging, and biomedical science. New applications are also being developed in hydrogen storage, electromagnetic shielding, and sensors.

The aim of this Special Issue is to explore how fillers can be used to modify polymer structure and properties, and to improve our fundamental understanding of the processing–micro/nano foam structures–final properties relationship.

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### Guest Editors

Dr. Jing Jiang

Prof. Dr. Qian Li

Dr. Feng Chen

Dr. Xiaofeng Wang

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### Deadline for manuscript submissions

closed (15 August 2023)



## Polymers

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*Polymers*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[polymers@mdpi.com](mailto:polymers@mdpi.com)

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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.

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### Editor-in-Chief

Prof. Dr. Alexander Böker

Lehrstuhl für Polymermaterialien und Polymertechnologie, University of Potsdam, 14476 Potsdam-Golm, Germany

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