

Special Issue

Advanced Polymer and Polymer Composites for Water Treatment Applications

Message from the Guest Editor

Recent advances in polymer adsorbents have significantly enhanced their potential for water treatment, especially in the areas of pollutant removal and environmental sustainability. Key developments include the creation of nanocomposite materials that improve adsorption efficiency, the use of biopolymers such as chitosan for more eco-friendly applications, and the integration of antimicrobial agents to provide dual functionality, pollutant removal, and water disinfection. Polymer-based composites ranging from polymer/polymer and polymer/carbon composites to polymer/clay composites have been engineered to optimize selectivity and efficiency in water purification processes. These materials offer notable advantages over traditional adsorbents, such as increased mechanical strength, tunable properties, and enhanced recyclability, which collectively contribute to more sustainable and effective water treatment solutions. This Special Issue seeks to showcase the latest research and reviews articles that explore innovative polymeric composites, including the application of machine learning and artificial intelligence models for optimizing water treatment processes.

Guest Editor

Dr. Daniel T. Oyekunle

Department of Chemistry, School of Environment and Sustainability,
University of Saskatchewan, Saskatoon, SK S7N 5C8, Canada

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Polymers
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
polymers@mdpi.com

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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

Prof. Dr. Alexander Böker

Fraunhofer-Institut für Angewandte Polymerforschung, Lehrstuhl für Polymermaterialien und Polymertechnologie, Universität Potsdam, Geiselbergstraße 69, 14476 Potsdam-Golm, Germany

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