

Special Issue

Functional Polymer Materials: Development, Modification, and Application

Message from the Guest Editor

This Special Issue highlights recent progress in polymers designed for specific, high-performance tasks. We welcome work covering fundamentals and applications, including design, synthesis, modification, and performance optimization. Innovative chemical, physical, and radiation-based approaches to enhance properties—such as mechanical strength, thermal stability, biocompatibility, conductivity, and sustainability—are of interest. Topics include functional and smart polymers; nanostructured and hybrid composites; bio-based and biodegradable polymers; stimuli-responsive materials; and polymers for energy, catalysis, sensors, electronics, and biomedical uses. Studies linking structure–property–function through modeling, characterization, and process engineering are encouraged. We invite original research and reviews that address challenges and future directions in functional polymer materials, fostering interdisciplinary links between chemistry, physics, and applications.

Guest Editor

Dr. Ananta Adhikari

Department of Natural Sciences, University of Maryland Eastern Shore,
Princess Anne, MD 21853, USA

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

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32,
20133 Milano, Italy

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