



## Preparation and Application of Polymer Nanocomposites

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### Message from the Guest Editor

Polymer nanocomposites have found applications as membranes in batteries and fuel cells, in biomedicine, for drug delivery, or as scaffolds for tissue regeneration, and in electrical/optoelectronic devices such as solar cells. Smart, responsive materials have been developed and used as sensors, actuators, and low-voltage energy generators for wearables.

This Special Issue is focused on the characterization of polymer nanocomposite films with special emphasis on their structure and interface properties, and their mechanical and electrical response. Research addressing the impact on the nanofiller/matrix interface of external conditions such as heat, electrical/magnetic, mechanical, or ultrasonic action is of particular interest. Contributions related to biocompatible, ecofriendly, and biodegradable polymer nanocomposites are welcome.





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## Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call “nanomaterials”. These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal-organic frameworks, membranes, nano-alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access.

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