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Nanostructured Polymer Composites for Energy Conversion Applications

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Message from the Guest Editors

Advances in energy conversion have always been a major driving force for the development of our society. As a result of recent progress in nanotechnology, polymers are widely used as matrices or binders for nanoparticles in nanocomposites. Leveraging unique properties of both polymers and nanoparticles, polymer nanocomposites offer great potential for enhanced material characteristics such as transport kinetics, conductivity, and mechanical properties. Therefore, they have been widely utilized for energy conversion applications including energetic materials, batteries, supercapacitors, thermoelectrics, photovoltaic devices, etc. The processing, modification, characterization, and structure–chemistry–function relationships of such hybrid materials have attracted significant research interest.

This Special Issue aims to cover the applications of polymer nanocomposites within the broad landscape of energy conversion, especially the interplay between the structure and performance of materials. Manuscripts focused on all aspects of polymer nanocomposites are welcome.



Specialsue









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Message from the Editor-in-Chief

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