



Recent Developments and Future Perspectives of Functional Polymer Nanocomposites

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Deadline for manuscript
submissions:

20 August 2024

Message from the Guest Editor

Functional polymer nanocomposites are gaining attention for their versatile applications in catalysis, electronics, sensors, environmental remediation, membrane separation, tissue engineering, and drug delivery. By integrating nanofillers like carbon nanotubes, graphenes, metals, and quantum dots, these composites exhibit exceptional structural, mechanical, electrical, magnetic, thermal, optical, and electrochemical properties. This synergy between polymers and nanoscale materials, when properly structured and organized, results in outstanding performance. We invite original research, reviews, and perspectives on synthetic methods, morphology engineering, and characterization of these materials. This special issue highlights polymer-based nanohybrids for advanced applications in energy storage, renewable energy, water treatment, biomedical devices, sensors, food packaging, and additive manufacturing.





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Message from the Editor-in-Chief

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