



Multifunctional Polymer Composite Materials

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Message from the Guest Editors

This Special Issue will focus on the development of polymer composites, mainly from the elastomer family. These composites needed to be reinforced with new-generation nanofillers that can make them electrically conducting, mechanically tough, and stretchable. Moreover, further advancements in the literature and industries need further attention to develop the next frontiers for multifunctional applications from these polymer composites. So key aspects of this Special Issue include the following:

- Next frontiers for multifunctional applications like strain sensors, wearable electronic technologies, self-healing mechanisms, stimuli-responsive behaviors, and biological toxicity.
- New types of sensors like sensing aquatic life, real-time monitoring sensors, physical activity sensors.
- Self-powered wearable energy generators like piezoelectric and triboelectric mechanisms.
- Theoretical modeling and simulations based on their multiscale and multifunctional aspects.
- New frontiers for polymer composites, such as elastomers, thermoplastics, and thermosets, and new fabrication processes like 3D and 4D printing.





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Message from the Editor-in-Chief

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