



Modeling and Simulation of Polymer Composites

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closed (31 March 2024)

Message from the Guest Editors

Polymer composites are multicomponent materials in which the major component (“matrix”) is a polymer and one or more additional components (“fillers”) are used to modify the matrix properties. Today, polymer composites (including nanocomposites, which have sub-100 nm particles as fillers) are widely used in many industries (transportation, gas separations, building and construction, packaging, etc.). Modeling, theory, and simulation are critical to the formulation design of polymer composites. For this Special Issue, we would like to invite contributions on various aspects of polymer composite modeling, from atomistic to mesoscale applications to continuum simulations, as well as AI/ML and other data-driven approaches. We are looking for papers describing the prediction of specific properties (modulus, strength, glass-transition temperature and local mobility, thermal and electrical conductivity, gas permeability and selectivity, adhesion, friction, viscosity, filler dispersion, etc.) as well as material designs for specific applications (adhesives, tires, packaging films, gas separation membranes, etc.)





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Message from the Editor-in-Chief

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I would like to invite you to contribute to the success of the journal by sending us your high quality research papers. We would be pleased to welcome you as one of our authors.

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