Special Issue

Molecular Dynamics Simulations in Nanocomposites

Message from the Guest Editor

Polymer–, metal–, and ceramic–matrix nanocomposites have shaped the landscape of novel advanced engineering materials today. With the advent of nanomaterials, new task-specific composites have emerged that exhibit multifunctionality at new levels with tunability of properties surpassing what was possible before. Nanocomposites have found applications in biological, aerospace, automotive, defense, drug delivery, and other wide-ranging systems. It is now possible to create functionally graded, stimuli-responsive, and other smart materials using traditional or recently developed nanocomposite fabrication methods, such as direct mixing, solution mixing, melt-mixing, in situ polymerization, layer-by-layer assembly, etc. The promise of nanocomposites hinges upon the possibility of manipulating matter at nanoscale.

Guest Editor

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