



Mechanical Properties of Graphene and Graphene-Based Nanocomposites

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

Graphene-based nanocomposites possess excellent mechanical, electrical, thermal, optical, and chemical properties. These materials have potential applications in high-performance transistors, biomedical systems, sensors, and solar cells. The mechanical properties of the graphene family of materials mostly depend on the preparation and properties of bulk graphene-based nanocomposites. Furthermore, the preparation strategies of bulk graphene-based nanocomposites have a unique correlation between the filler modulus, derived from the rule of mixtures, and the composite matrix. This correlation with a wide range of polymer matrices and the filler modulus explains the apparent underperformance of graphene nanocomposites. Some of the topics of interest in this Special Issue include: the importance of characterization techniques, including nanoindentation/microindentation, Raman spectroscopy, X-ray diffraction (XRD), atomic force microscopy (AFM), scanning electron microscopy (SEM), and high-resolution transmission electron microscopy (HRTEM) for the characterization of graphene flakes and their composites;





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Message from the Editor-in-Chief

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