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Modeling and Mechanics of Carbon-Based Nanostructures and Electronic Devices

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Message from the Guest Editor

A wide range of outstanding and novel features of such carbon nanomaterials as graphene, carbon nanotubes, carbon dots and fullerene have attracted the attention of researchers around the world. Unique mechanical properties of carbon nanocomposites make them an essential part of element base for stretchable and transparent electrodes for transistors, lithium-ion batteries and supercapacitors, as well as electrochemical biosensors. Mathematical modeling of carbon nanostructures' functionalization performed by present-day software helps to achieve the desired configuration of composite that provides optimum mechanical properties; for example, Young modulus, Poisson ratio, fracture strength during strain, crumbling, bending and nanoindentation.

- modeling
- mechanics
- carbon nanostructures
- electronic devices
- composites
- nanoindentation



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Message from the Editor-in-Chief

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