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BOOK TITLES

Innovative Developments of Advanced Multifunctional Nanocomposites in Civil and Structural Engineering

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DESCRIPTION

This book focuses on nanotechnology, the innovation and control of materials at 100 nm or smaller length scales, and how they have revolutionized almost all of the various disciplines of science and engineering study. In particular, advances in synthesizing, imaging, and manipulating materials at the nano-scale have provided engineers with a broader array of materials and tools for creating high-performance devices. Nanomaterials possess drastically different properties than those of their bulk counterparts mainly because of their high surface-to-mass ratios and high surface energies/reactivity. For instance, carbon nanotubes have been shown to possess impressive mechanical strength, stiffness, and electrical conductivity superior to that of bulk carbon. This book covers that proliferation and the main challenges associated with the integration of nanomaterials and nano-scale design principles into civil and structural engineering.

AUTHOR/EDITOR

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