

Engineered Carbon Nanostructures for Tailored Applications

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Abstract

Nanoscience and Nanotechnology research has made significant contributions addressing issues related to energy, water food, air and health securities. Hybrid nanostructures are found to be much more promising as we can integrate the properties of the constituents and achieve synergetic effects. Among the different nanostructures, the 2D carbon structure, graphene, is much promising for various applications. This talk will cover the recent works on hetero atom doped graphene hybrids especially for multifunctional applications. This will include boron, nitrogen-sulfur co-doped reduced graphene oxide-Ag nano hybrids for molecular oxygen reduction, nonlinear optical and SERS applications. The recent works on CNT based polymer nanocomposites for EMT shielding applications will also be covered. The detailed synthesis strategies, the different characterizations performed will be discussed.

References:

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