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Smart composites materials: A Greener solution for Environmental Sustainability

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Abstract

Nanocomposites are recognized as promising and green materials for environmental problem resolution. Nanocomposites are low-cost, potential adsorption and eco-friendly materials. Green nanocomposites with the small size of fillers increase the interfacial area as compared to conventional composites. Green nanocomposites usually fabricated by combination of nanomaterials with either natural materials such as biopolymers or derived through green source, are the new trend in the remediation of environmental problems. Green nanocomposites have advanced characteristics of excellent adsorption properties and biocompatibility. Green nanocomposites minimized the exposure of metal to the environment what enables special recognition owing to their advanced properties over conventional adsorbents. Various types of functionalized nanomaterials have been developed in the virtue of anchoring specific functional groups on their surface modification. The current talk will be focused on various nanocomposites for the remediation of the various organic and inorganic pollutants from waste water.

Keywords: Nanocomposites, Environmental Sustainability, remediation, inorganic, organics, pollutants