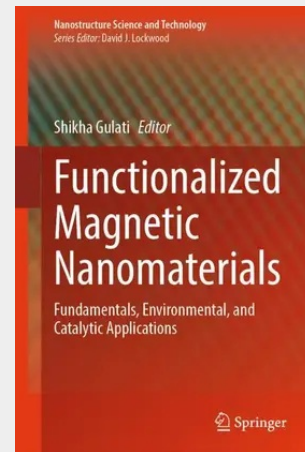


Functionalized Magnetic Nanomaterials

Fundamentals, Environmental, and Catalytic Applications

This contributed volume provides a comprehensive exploration of functionalized magnetic nanomaterials (FMNs), detailing their historical development, fundamental properties, and synthesis techniques. It focuses on surface functionalization strategies, characterization methods, and the various industrial applications of FMNs in fields like catalysis, environmental remediation, and renewable energy. The chapters cover the mechanisms behind FMNs' effectiveness in catalysis and pollution control, as well as their roles in advanced material design and chemical sensing. Finally, the book discusses the challenges of scaling up production for industrial use and highlights future trends and innovations in this rapidly evolving field. It is a valuable resource for graduates, researchers, and professionals working in the areas of materials science, nanotechnology, chemistry, and environmental science.

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