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Sommario/riassunto

Environmental Nanotoxicology: Combatting the Minute Contaminants is a comprehensive guide to the rapidly evolving field of nanotoxicology and its implications for environmental health and safety. This book results from the collaborative efforts of leading experts and researchers from diverse disciplines, aiming to thoroughly understand the interactions between nanomaterials and the environment and their potential impacts on the delicate balance of our ecosystems. Nanotechnology has witnessed remarkable innovations leading to the development of nanomaterials with novel properties and applications across various industries. Alongside these innovations, concerns have arisen about the potential risks that nanomaterials may pose to the environment and living organisms. This book addresses these concerns by comprehensively exploring the field's key concepts, principles, and methodologies. It includes case studies and offers insights into developing appropriate regulatory frameworks and guidelines for the responsible use and disposal of nanomaterials. The book is a valuable resource for researchers and professionals working in nanotoxicology on the complex challenges posed by the intersection of nanomaterials and the environment. It is also an essential reference for students studying environmental science, toxicology, and nanotechnology. Addresses risk assessment and management in nanotoxicology; Explores the life cycle assessment of nanoparticles; Sheds light on emerging technologies and future directions in environmental nanotoxicology. .