

# Applying Nanotechnology for Environmental Sustainability

Part of the Advances in Environmental Engineering and Green Technologies Book Series

Sung Hee Joo (University of Miami, USA)

## Description:

Nanomaterials have been used for years in industries such as consumer products, textile production, and biomedicine, yet the literature outlining their use in environmental causes is limited. The safety, toxicity, transportation, and removal of this technology must be addressed as nanotechnology and nanomaterial use is expected to grow.

**Applying Nanotechnology for Environmental Sustainability** addresses the applications of nanomaterials in the field of environmental conservation and sustainability, and analyses the potential risks associated with their use. It elucidates the scientific concepts and emerging technologies in nanoscience and nanotoxicity by offering a wide range of innovative topics and reviews regarding its use.

## Readers:

This publication is essential for environmental engineers, researchers, consultants, students, regulators, and professionals in the field of nanotechnology.

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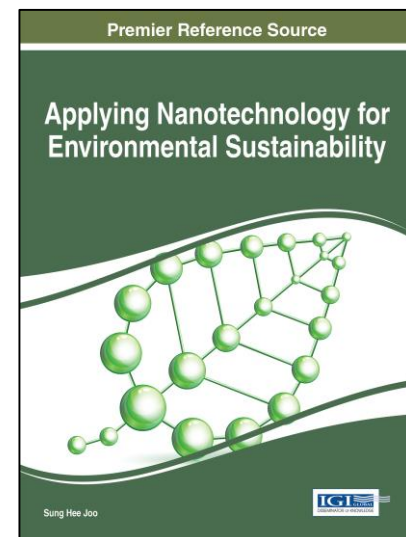
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Sung Hee Joo, Assistant Professor of Civil, Architectural and Environmental Engineering at the University of Miami is the Director of the Environmental Nanotechnology Laboratory. Dr. Joo received PhD in environmental engineering at the University of New South Wales. Following her time in Australia, she conducted research on the formation and pathways of nitrogenous disinfection by-products during chlorine and chloramine disinfection at Yale University. She and her colleagues expanded research involving the development and applications of stabilized bimetallic nanomaterials for in situ remediation of chlorinated hydrocarbons. Dr. Joo has expertise in the field of advanced treatment technologies for emerging environmental contaminants, environmental nanotechnology, chemical nanoscience, the innovative processes of water/wastewater treatment, the application of membrane technology in wastewater, and the fate & transport of contaminants in the environment. She is a recipient of the Provost Research Award, USEPA's STAA, NRC, and YCC award of ACS.

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