

Mercury Toxicity

Challenges and Solutions

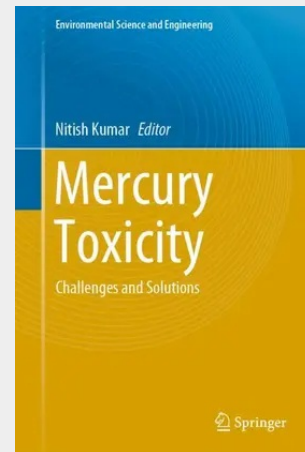
This book presents mercury toxicity with respect to remediation and health issues. It covers sources of mercury contamination, its impact on human health, and prospective remediation by both bioremediation and phytoremediation with the application of recent advanced techniques such as genetic engineering and nanotechnology.

Both anthropogenic activities and natural processes cause the release of mercury into different spheres of the environment resulting in severe adverse impacts. Increased anthropogenic discharge of mercury leads to disturbance in its natural biogeochemical cycle, which results in unenviable diseases and hazardous health effects. Mercury pollution is responsible for causing neurobehavioral, kidney, heart, gastrointestinal, liver, and other diseases. Many published works about the impact of mercury on health are also available worldwide; however, there is no complete understanding available on toxicological studies of mercury that covers the broader spectrum of findings ranging from sources of exposure to mercury toxicity to its remediation strategies.

This book brings together a diverse group of environmental science, sustainability, and health researchers to address the challenges posed by global mass poisoning caused by mercury contamination. The book also proposes solutions to contamination through multi-disciplinary approaches.

The book contains three sections. The first part describes the different sources and distribution of mercury in soil and plant ecosystems. The second part explains the health risks linked to mercury toxicity. The third part addresses sustainable mercury toxicity mitigation strategies and the potential applications of recent technology in providing solutions. This book is a valuable resource to students, academics, researchers, and environmental professionals working in the field of mercury contamination.

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