

Book review

Metal Contaminated Aquatic Sediments

Herbert E Allen (ed.)
Ann Arbor Press
1996, 300 pages £39.95
ISBN 1-57504-010-7

From theory to application, this unique book is devoted to providing a better understanding of the science and environmental problems associated with metals in contaminated sediments. *Metal Contaminated Aquatic Sediments* provides the tools necessary to plan effective research, implement management strategies, and protect and mitigate critical aquatic resources. Authoritative chapters explain new advances in environmental chemistry, demonstrate effective new modeling techniques, and provide a better understanding of cycling and transport of trace metals in sedimentary environments. Other topics covered include sediment-metal interactions in coastal environments, bio-availability, and benthic community interactions affecting environmental quality.

Table of Contents

- Metals and Sediments: A Global Perspective
- Metal Cycling in Surface Sediments
- Trace Metal Chemistry in Porewaters
- Metal Absorption onto and Desorption from Sediments

- Metal and Silicate Sorption and Subsequent
- Mineral Formation on Bacterial Surfaces
- Determination of Redox Status in Sediments
- Changes in Metal Speciation Following Alterations of Sediment Redox Status
- Dynamics of Trace Metal Interactions with Authigenic Sulfide Minerals in Anoxic Sediments
- Effects of Bioturbation on Solute and Particle Transport in Sediments
- EPA's Contaminated Sediment Management Strategy

Cell Biology in Environmental Toxicology

Miren P. Cajaraville (ed.)
Servicio Editorial Universidad del Pais Vasco
Bilbao 1995, 2600 Ptas + VAT
ISBN 84-7585-666-7

This book is composed of reviews produced as a statement and discussion of the existing knowledge put forward during a course on Cell Biology in Environmental Toxicology held at the University of the Basque Country in June 1994. It is designed to provide a rational assessment of the current potential of cell biological methods and

concepts to solve problems encountered in Environmental Toxicology. It contains the following chapters:

- Cellular biomarkers and biological assessment of pollution
- The role of cell biology on the application of toxicology to environmental sciences
- Cellular biomarkers as useful tools in the biological monitoring of pollution
- Cellular responses to metals
- Techniques for the study of metals in cell biology
- Morphofunctional patterns of cell and tissue systems involved in metal handling and metabolism
- Mechanisms of metal incorporation into cells
- Mechanisms of metal immobilization and transport in cells
- Metabolism and toxicity of metals: Metallothioneins and metal elimination
- Cellular responses to organic xenobiotics
- Tracing of molluscicides and cellular reactions induced by them in slugs' tissues.
- Induction of peroxisome proliferation by some environmental pollutants and chemicals
- In vitro* toxicity testing
- The use of *in vitro* methods for the evaluation of the potential risk of toxicity of xenobiotics
- Use of cultured cells in environmental toxicology: *in vitro* toxicity tests
- Genotoxic and cytotoxic effects of pesticides