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| Nota di contenuto | Machine generated contents note: Preface.Chapter 1. Overview of Mercury in the Environment (Guangliang Liu Cia, Nelson O'Driscoll, Xinbin Feng, Guibin Jiang).Part I. Analytical Developments.Chapter 2. Advances in Speciation Analysis of Mercury in the Environment (Yanbin Li, Yougguang Yin, Guangliang Liu, Yong Cai).Chapter 3. Measuring Gas Phase Mercury Emissions from Industrial Effluents (Samuel J. Ippolito, Ylias M. Sabri, Suresh K. Bhargava).Part II. Speciation and Transformation.Chapter 4. Atmospheric Chemistry of Mercury (Che-Jen Lin, Pattaraporn Singhasuk, Simo O. Pehkonen).Chapter 5. Microbial transformations in the mercury cycle (Chu-Ching Lin, Nathan Yee, Tamar Barkay).Chapter 6. Photoreactions of Mercury in Aquatic Systems (Emma E. Vost, Marc Amyot, Nelson J. O'Driscoll).Chapter 7. Chemical Speciation of Mercury in Soil and Sediment (Ulf Skyllberg).Chapter 8. The effects of dissolved organic matter on mercury biogeochemistry (Chase A. Gerbig, Joseph N. Ryan, George R. Aiken).Chapter 9. Tracking |

geochemical transformations and transport of mercury through isotope fractionation (Holger Hintelmann, Wang Zheng).Part III. Transport and Fate.Chapter 10. Atmospheric transport of mercury (Oleg Travnikov). Chapter 11. Adsorption of Mercury on Solids in the Aquatic Environment (Guangliang Liu, Yanbin Li, Yong Cai).Chapter 12. Exchange of elemental mercury between the oceans and the atmosphere (Asif Qureshi, Matthew MacLeod, Elsie Sunderland, Konrad Hungerbuhler).Chapter 13. Exchange of Mercury between the Atmosphere and Terrestrial Ecosystems (Mae Sexauer Gustin).Part IV. Bioaccumulation, Toxicity, and Metallomics.Chapter 14. Bioaccumulation and biomagnification of mercury through food webs (Karen Kidd, Meredith Clayden, Tim Jardine).Chapter 15. Mercury toxicity with special reference to methylmercury: A review (Mineshi Sakamoto, Katsuyuki Murata, Akiyoshi Kakita, Masanori Sasaki).Chapter 16. Metallomics of Mercury: Role of Thiol- and Selenol-containing Biomolecules (Feiyue Wang, Marcos Lemes, Mohammad A. K. Khan). Chapter 17. Human Health Significance of Dietary Exposures to Methylmercury (Anna L. Choi, Philippe Grandjean).

Sommario/riassunto

"Reviewing the major environmental processes of mercury (Hg) transformation and transport during Hg cycling, this book focuses on the recent developments in environmental chemistry of Hg. Each chapter touches on the basic concepts and provides a critical review of the targeted subject, the methodology used for studying it, and future research needs. The book outlines the fundamental concepts and provides a detailed review of critical findings in recent research. It is suitable for anyone interested in environmental sciences"--
