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3.4 Limits of Detection/Quantitation3.5 Calculations: Dilution or Concentration Factors; 3.6 Quality Assurance; 3.6.1 Certified Reference Materials; 3.7 Summary; References; Further Reading; 4 Environmental Sampling; 4.1 Introduction; 4.2 Sampling Soil (and Sediments); 4.3 Sampling Water; 4.4 Sampling Air; 4.5 Summary; Further Reading; 5 Storage of Samples for Analysis; 5.1 Introduction; 5.2 Choice of Storage Container for Liquid Samples; 5.3 Preservation Techniques for Liquid Samples; 5.4 Storage and Preservation of Solid Samples; 5.5 Storage and Preservation of Gaseous Samples; 5.6 Summary
Further Reading6 Preparation of Environmental Solid Samples for Inorganic Analysis; 6.1 Introduction; 6.2 Decomposition Techniques; 6.3 Selective Extraction Methods; 6.3.1 Single Extraction Methods; 6.3.2 Sequential Extraction Method; 6.3.3 Chemometric Identification of Substrates and Element Distributions (CISED) Method; 6.4 Physiologically-Based Extraction Test or In Vitro Gastrointestinal Extraction; 6.4.1 Procedure for Gastric Extraction; 6.4.2 Procedure for Gastric + Intestinal Extraction; 6.5 Earthworms; 6.5.1 Procedure for Earthworm Bioaccumulation Studies (Sandoval et al., 2001)
6.6 SummaryAppendix A: Extraction Reagents for Single Extraction Methods; Appendix B: Extraction Reagents for Sequential Extraction Method; Appendix C: Extraction Reagents for In Vitro Gastrointestinal Extraction Using the Unified Bioaccessibility Method (and the FOREhST Method); References; Further Reading; 7 Preparation of Environmental Liquid Samples for Inorganic Analysis; 7.1 Introduction; 7.2 Liquid-Liquid Extraction of Metals; 7.2.1 Procedure for APDC Extraction into MIBK; 7.3 Ion Exchange; 7.3.1 Chelation Ion Exchange; 7.3.2 Procedure for Batch Ion Exchange Extraction
7.4 Co-precipitation

Sommario/riassunto

"This book covers all aspects of environmental trace analysis from sampling through to preparation of the sample to the analytical techniques used to quantify the level of trace metals or organic compounds. The book is divided into two areas: sample preparation for inorganic analysis and sample preparation for organic analysis. This allows the reader to focus on key aspects related to the preparation of samples for their subsequent analysis. Selected case studies provide the reader with the opportunity to consider how the sample preparation approach can be optimized for their own area of expertise"--