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Nota di contenuto	Handbook of Elemental Speciation II - Species in the Environment, Food, Medicine and Occupational Health; Contents; List of Contributors; Preface; Acknowledgments; Technical Abbreviations and Acronyms; 1 Introduction; 2 Element by Element Review; 2.1 Introduction; 2.2 Speciation of Aluminum; 2.2.1 Speciation of Aluminum in the Environment; 2.2.2 Speciation of Aluminum in Food: Sources, Including Potable Water; 2.2.3 Speciation of Aluminum in Clinical Aspects (Health & Disease); 2.2.4 Speciation of Aluminum in Occupational Health; 2.3 Speciation of Antimony; 2.4 Speciation of Arsenic 2.4.1 Arsenic and Arsenic Species in Environment and Human Nutrition 2.4.2 Arsenic Speciation in Human Tissues; 2.5 Speciation of Cadmium; 2.5.1 Speciation of Cadmium in the Environment and Food; 2.5.2 Speciation of Cadmium in Health and Disease; 2.6 Speciation of Chromium; 2.6.1 Speciation of Chromium in Environment and Food; 2.6.2 Speciation of Chromium in Occupational Exposure and Clinical Aspects; 2.7 Speciation of Cobalt; 2.8 Speciation of Copper; 2.8.1 Speciation of Copper in the Environment; 2.8.2 Speciation of Copper in Clinical and Occupational Aspects; 2.9 Speciation of Iron 2.9.1 Speciation of Iron in the Environment 2.9.2 Iron Speciation in Biomedicine; 2.10 Speciation of Lead; 2.10.1 Environmental Speciation of Lead; 2.10.2 Speciation of Lead in Food and Wine; 2.10.3 Speciation of Lead in Occupational Exposure and Clinical Health Aspects; 2.11 Speciation of Manganese; 2.12 Speciation of Mercury: Environment, Food, Clinical, and Occupational Health; 2.13 Speciation of Molybdenum; 2.14 Speciation of Nickel; 2.15 Speciation of Platinum, Palladium, Gold and Rhodium; 2.15.1 Importance of Platinum Group Elements and Gold Speciation in the Environment and Medicine 2.15.2 Speciation of Platinum Group Elements and Gold in Occupational Exposure 2.16 Speciation of Selenium; 2.17 Speciation of Silicon; 2.18 Speciation of Sulfur; 2.19 Speciation of Thallium; 2.20 Speciation of Tin; 2.21 Speciation of Vanadium; 2.22 Speciation of Zinc; 2.23 Speciation of Actinides; 2.24 Speciation of Halogen Compounds; 2.25 Volatile Metal Compounds of Biogenic Origin; 2.26 Metal Complexes of Humic Substances; 2.27 Selected Examples of Important Metal-Protein Species; 3 Modeling of Elemental Species 3.1 Thermodynamic Modeling of Trace Element Partitioning in the Environment: New Concepts and Outlook 3.2 Modeling in Nutrition. The Metabolism of Selenium, Copper, Zinc and Calcium Using Stable Isotopes in Humans; 3.3 Modeling of Trace Element Species in Health and Disease; 3.3.1 Pharmacokinetic Approach and Mathematical Modeling; 3.3.2 Modeling of Biological Ligand Binding; 4 Speciation and the Emerging Legislation; Index

Sommario/riassunto

Written by an internationally recognized group of editors and contributors, Handbook of Elemental Speciation, Volume 2 provides a comprehensive, cross-disciplinary presentation of the analytical techniques involved in speciation. Comprehensive coverage of key elements and compounds in situ. Addresses the analysis and impact of these elements and compounds, e.g. arsenic, lead, copper, iron, halogens, etc., in food, the environment, clinical and occupational health. Detailed methodology and data are reported, as well as regulatory limits. Includes general introduction.
