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Nota di contenuto	Frontmatter -- Historical Development and Perspectives of the Series / Sigel, Astrid / Sigel, Helmut / Sigel, Roland K. O. -- Preface to Volume 7: Organometallics in Environment and Toxicology -- Contents -- Contributors to Volume 7 -- Titles of Volumes 1-44 in the Metal Ions in Biological Systems Series -- Contents of Volumes in the Metal Ions in Life Sciences Series -- 1 Roles of Organometal(loid) Compounds in Environmental Cycles / Thayer, John S. -- 2 Analysis of Organometal(loid) Compounds in Environmental and Biological Samples / Harrington, Christopher F. / Vidler, Daniel S. / Jenkins, Richard O. -- 3 Evidence for Organometallic Intermediates in Bacterial Methane Formation Involving the Nickel Coenzyme F430 / Dey, Mishtu / Li, Xianghui / Zhou, Yuzhen / Ragsdale, Stephen W. -- 4 Organotins. Formation, Use, Speciation, and Toxicology / Gajda, Tamás / Jancsó, Attila -- 5 Alkyllead Compounds and Their Environmental Toxicology / Abadin, Henry G. / Pohl, Hana R. -- 6 Organoarsenicals. Distribution and Transformation in the Environment / Reimer, Kenneth J. / Koch, Iris / Cullen, William R. -- 7 Organoarsenicals. Uptake, Metabolism, and Toxicity / Dopp, Elke / Kligerman, Andrew D. / Diaz-Bone, Roland A. -- 8 Alkyl Derivatives of Antimony in the Environment / Filella, Montserrat -- 9 Alkyl Derivatives of Bismuth in Environmental and Biological Media / Filella, Montserrat -- 10 Formation, Occurrence, Significance, and Analysis of Organoselenium and Organotellurium

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Sommario/riassunto

Volume 7, devoted to the vital and rapidly expanding research area around metal-carbon bonds (see also MILS-6), focuses on the environment. With more than 2500 references, 35 tables, and nearly 50 illustrations, many of these in color, it is an essential resource for scientists working in the wide range from organometallic chemistry, inorganic biochemistry, environmental toxicology all the way through to physiology and medicine. In 14 stimulating chapters, written by 29 internationally recognized experts, Organometallics in Environment and Toxicology highlights in an authoritative and timely manner environmental cycles of elements involving organometal(loid) compounds as well as the analytical determination of such species. This book examines methane formation involving the nickel coenzyme F430, as well as the organometal(loid) compounds formed by tin, lead, arsenic, antimony, bismuth, selenium, tellurium, and mercury. In addition, it deals with the environmental bioindication, biomonitoring, and bioremediation of organometal(loid)s, and it terminates with methylated metal(loid) species occurring in humans by evaluating assumed and proven health effects caused by these compounds.
