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Nota di contenuto	Cover; Contents; Contributors; Preface; 1. Geochemical Reactivity of Bacterial surfaces: a Tribute; I. ENVIRONMENTS; 2. From Geocycles to Genomes and Back; 3. Hyperthermophile-Metal Interactions in Hydrothermal Environments; 4. Microbe-Metal Interactions on seafloor Basalts; 5. Microbial Transformations of Arsenic in the subsurface; II. PROCESSES; 6. Mineralogical Controls on Microbial Reduction of Fe(III) (Hydr)oxides; 7. Microorganisms and Processes Linked to Uranium Reduction and Immobilization; 8. Direct and Indirect Processes Leading to Uranium(IV) Oxidation 9. Anaerobic Respiratory Iron(II) Oxidation10. Accentuate the Positive: Dissimilatory Iron Reduction by Gram-Positive Bacteria; 11. Regulation of Arsenic Metabolic Pathways in Prokaryotes; III. NEW TECHNOLOGIES; 12. Transcriptome Analysis of Metal-Reducing Bacteria; 13. Application of Proteomics in Bioremediation; 14. Monitoring Microbial Activity with GeoChip; 15. Methods for Detection of Arsenate-Respiring Bacteria: Advances, Cautions, and Caveats; 16. Nanoparticles Formed from Microbial Oxyanion Reduction of Toxic Group 15 and Group 16

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Sommario/riassunto

The ideal reference for novice and experienced investigators interested in environmental biogeochemistry and bioremediation.