

Contents

Minerals and Aqueous Species of Iron and Manganese as Reactants and Products of Microbial Metal Respiration	1
Juraj Majzlan	
Energetic and Molecular Constraints on the Mechanism of Environmental Fe(III) Reduction by <i>Geobacter</i>	29
C. E. Levar, J. B. Rollefson and D. R. Bond	
The Biochemistry of Dissimilatory Ferric Iron and Manganese Reduction in <i>Shewanella oneidensis</i>	49
Clemens Bücking, Marcus Schicklberger and Johannes Gescher	
On the Role of Endogenous Electron Shuttles in Extracellular Electron Transfer	83
Evan D. Brutinel and Jeffrey A. Gralnick	
Humic Substances and Extracellular Electron Transfer	107
Annette Piepenbrock and Andreas Kappler	
Metal Reducers and Reduction Targets. A Short Survey About the Distribution of Dissimilatory Metal Reducers and the Multitude of Terminal Electron Acceptors	129
Gunnar Sturm, Kerstin Dolch, Katrin Richter, Micha Rautenberg and Johannes Gescher	

Bioremediation via Microbial Metal Reduction	161
Mathew P. Watts and Jonathan R. Lloyd	
Dissimilatory Metal Reducers Producing Electricity: Microbial Fuel Cells	203
Sven Kerzenmacher	
Index	231