

1. Record Nr.	UNINA9910466624303321
Titolo	Molecular geomicrobiology // editors: Jillian F. Banfield, Javiera Cervini-Silva, Kenneth H. Nealson
Pubbl/distr/stampa	Chantilly, Virginia : , : The Mineralogical Society of America, , [2005] ©2005
ISBN	1-5015-0955-1
Descrizione fisica	1 online resource (xiv, 294 pages) : illustrations
Collana	Reviews in Mineralogy and Geochemistry ; ; Volume 59
Disciplina	579/.1714
Soggetti	Geomicrobiology Microbial ecology Manganese - Environmental aspects Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"The short course, sponsored by the Mineralogical Society of America ... was held at the University of California, Berkeley, December 3-4, 2005 prior to the fall AGU meeting in San Francisco, California"--Page [v].
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	The search for a molecular-level understanding of the processes that underpin the Earth's biogeochemical cycles / Jillian F. Banfield ... [et al.] -- What genetics offers geobiology / Dianne K. Newman, Jeffrey A. Gralnick -- Enzymology of electron transport : energy generation with geochemical consequences / Thomas J. DiChristina, Jim K. Frederickson, John M. Zachara -- Siderophores and the dissolution of iron-bearing minerals in marine systems / Stephan M. Kraemer ... [et al.] -- Geomicrobiological cycling of iron / Andreas Kappler, Kristina L. Straub -- Molecular-scale processes involving nanoparticulate minerals in biogeochemical systems / Benjamin Gilbert, Jillian F. Banfield -- The organic-mineral interface in biominerals / P.U.P.A. Gilbert, Mike Abrecht, Bradley H. Frazer -- Catalysis and prebiotic synthesis / James P. Ferris -- The evolution of biological carbon and nitrogen cycling : a genomic perspective / Jason Raymond -- Building the biomarker tree of life / Jochen J. Brocks, Ann Pearson -- Population dynamics through the lens of extreme environments / Rachel J. Whitaker, Jillian F. Banfield -- Metabolism and genomics : adventures derived from complete genome sequencing / Karen E. Nelson, Barbara Methe.

Sommario/riassunto

Volume 59 of Reviews in Mineralogy and Geochemistry ties together themes common to environmental microbiology, earth science, and astrobiology. The research presented here, the associated short course, and the volume production were supported by funding from many sources, notably the Mineralogical Society of America, the Geochemical Society, the US Department of Energy Chemical Sciences Program and the NASA Astrobiology Institute.
