

Special Issue

Bio-Transformation and Mineralization Induced by Microorganisms

Message from the Guest Editor

Microorganisms can obtain energy to support growth from the dissimilatory reduction of Mn(IV), Fe(III), and any number of multivalent trace metals and the radionuclides. Microorganisms form immense varieties of authigenic minerals such as oxides, clays, carbonates, phosphates, sulfates, and sulfides. Modern elemental cycles such as Fe, Mn, Si, Ca, P, C and S are all affected by bio-mineralization processes. We invite contributions on, but not limited to, biogeochemical and mineralogical studies of the biotransformation of Mn(IV), Fe(III), redox-sensitive metals and radionuclides at both the laboratory and field scales. We especially encourage papers on the development of novel characterization methods of the bio-transformation of redox-sensitive metals/radionuclides and bio-minerals and/or novel applications of microbe-metal/radionuclide interactions and biomineralization with an interdisciplinary perspective.

Guest Editor

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Deadline for manuscript submissions

closed (15 October 2019)



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About the Journal

Message from the Editor-in-Chief

Minerals welcomes submissions that report basic and applied research in mineralogy. Research areas of traditional interest are mineral deposits, mining, mineral processing and environmental mineralogy. The journal footprint also includes novel uses of elemental and isotopic analyses of minerals for petrology, geochronology and thermochronology, thermobarometry, ore genesis and sedimentary provenance. Contributions are encouraged in emerging research areas such as applications of quantitative mineralogy to the oil and gas, manufacturing, forensic science, climate change, geohazard and health sectors.

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