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# Biogeochemical Cycling of Fe, Mn, and S and Their Impact on Contaminant Dynamics

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Deadline for manuscript submissions:
**closed (31 May 2022)**

## Message from the Guest Editors

A complex interplay between hydrology, redox conditions, and iron (Fe), manganese (Mn), and sulfur (S) cycling leads to diverse reactions that determine geochemical behaviour of contaminants and nutrients in near-surface environments. Transformation of metastable Fe and Mn phases affects speciation, partitioning, and mobility of associated contaminants and nutrients. Under anaerobic conditions, such mineral transformations may be induced or catalysed by the presence of microbially produced Fe(II), Mn(II), or S(−II). Under aerated conditions, oxidation of Fe(II), Mn(II), or S(−II) results in the co-precipitation and incorporation of toxic and essential elements. Recent research has shown that co-occurring contaminants and nutrients can also have a severe impact on the nature, pathways, and kinetics of mineral (trans)formations.

With this Special Issue, we invite you to submit current work that explores the coupling of contaminant (e.g., arsenic (As), antimony (Sb), organic pollutants) and nutrient (e.g., phosphate ($PO_4^{3-}$), sulfate ($SO_4^{2-}$)) dynamics with Fe, Mn, and S mineral transformations in natural or engineered environments.

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## 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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