Special Issue

Measuring and Predicting Minerals Growth, Dissolution, and Alteration Kinetics

Message from the Guest Editor

All minerals and synthetic analogues, including new crystalline materials, grow, dissolve, and change their properties during alteration processes. In one way or another, decision makers in many different fields of all modern societies rely on accurate assessments of the rates of such processes as a function of environmental conditions. In a diverse range of important activities that include predictions of global climate change, drug development, steel corrosion, and nuclear waste management, crystal growth and dissolution kinetics will always be at the center of attention. [...]

This special volume on growth, dissolution and alteration kinetics of crystalline systems is devoted to providing a forum for the interested researcher to discuss areas that have seen significant advance, as well as those that are the center of controversy. Our aim is to capture research highlights, including a much needed, in-depth discussion of key theoretical concepts. Of special interest are contributions that address some of the most challenging topics, i.e., how do we up-scale our experimental and theoretical research results from the nano- to the macroscale?

Guest Editor

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closed (15 August 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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manuscripts are peer-reviewed and a first decision is provided to authors approximately 17.7 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the second half of 2025).

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