

Special Issue

Chemical and Physical Evolution of Magma Reservoirs and Associated Ore Deposits

Message from the Guest Editors

Recent technological advancements have facilitated the acquisition of large, high-resolution and specialized mineralogical and geochemical databases for igneous rocks and associated mineral deposits. These data have revealed external contributions to magmatic systems from processes such as magma mixing, recharging and assimilation, which occur during cooling and final emplacement. These processes manifest in the form of phenocrysts, xenocrysts, autocysts and antecysts of varying compositions, and showcase the variability in melt and crystal contributions to magmatic systems. Consequently, a wide range of rock textures and compositions have emerged, providing a detailed record of the chemical and physical evolution of magma reservoirs and the concentration of elements in magmatic ore deposits.

With regard to this issue, we invite contributions that utilize novel approaches to studying the origins and evolution of magmas and associated ore deposits with an emphasis on the integration of mineral textural and geochemical datasets. We will consider any manuscript on the origin and evolution of magmas for publication in this Special Issue.

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Deadline for manuscript submissions

closed (28 June 2024)



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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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