Special Issue

Thermal History and Preservation Mechanisms of Porphyry-Cu Deposits: Evidence from Thermochronology, Mineral and Isotopic Geochemistry

Message from the Guest Editors

The porphyry Cu deposit is one of the world's largest and most valuable mines supplying much of the world's copper, molybdenum, gold, silver, rhenium, tellurium, selenium, and mercury. It is the most explored and researched ore deposit over the last century. However, the preservation mechanisms of the ore body remain unclear, which severely inhibits the mineral exploration of the porphyry Cu deposit. The distribution of mineral deposits is largely the result of the combined effects of burial, uplift, and erosion. Porphyry deposits worldwide have typical Phanerozoic ages, with the majority being Mesozoic Cenozoic deposits. The early-formed mineral deposits are likely to have been eroded and damaged, making them unable to be preserved. This Special Issue invites contributions that apply geochronology, thermochronology, mineral and isotopic geochemistry to study the formation, telescoping, modification, and preservation of porphyry Cu deposits and provide mineral exploration instructions. We encourage original and review papers covering novel techniques, developments, and applications in thermochronology, mineral and isotopic geochemistry.

Guest Editors

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Deadline for manuscript submissions

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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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