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Recent Studies on the Origin of Magmatic and Hydrothermal Sulfide Economic Mineral Deposits

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Message from the Guest Editors

This Special Issue will encompass new studies on the origin and methods of exploration of magmatic and hydrothermal economic mineral deposits.

Section 1: Origin of magmatic deposits: sources of sulfur in magma; constraints on the solubility of sulfur in different magma types; mechanisms of sulfide saturation; spectroscopic studies of magmatic sulfide minerals; non-traditional stable isotope studies on sulfide minerals in magmatic sulfide deposits; modes of structural and lithological emplacements of magmatic deposits.

Section 2: Origin of hydrothermal deposits: sources of sulfur and metals in the mineralizing hydrothermal fluids; factors causing concentration and precipitation of economic sulfide minerals; tectonic, structural, and lithological settings of various kinds of hydrothermal mineral deposits; formation of metallic complexes in mineralizing fluids; metallic enrichments of pre-existing mineral deposits by subsequent hydrothermal processes.

Section 3: modern methods of mineral exploration: remote sensing; geophysical methods; geochemical methods; project evaluation.

Special section: origin and occurrences of critical mineral deposits.







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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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