Special Issue

Microanalysis Applied to Mineral Deposits

Message from the Guest Editors

Societal demand for minerals and metals is increasing, and so-called critical raw materials (CRMs) have lately received much focus. Parallel to this increase, sustainability in the metal supply chain is a growing concern for the public, and the environmental legislation for mining activities has become much stricter in many countries. Since CRMs typically occur as low concentration by-products in ores, more in-depth microanalytical studies of the complex elemental composition of ore deposits are required to enable the optimization of existing mining operations, as larger portions of ore bodies can be recovered. Some metals may have economic by-products. Others are deleterious to the environment or impair the recovery of the main metal commodity. Hence, detailed mineralogical, textural and geochemical knowledge of an ore body is crucial to maximize both the extraction and sustainability of a mining operation. The purpose of this Special Issue, “Microanalysis applied to mineral deposits”, is to publish recent research that shows the value and range of microanalytical studies of ore deposits.

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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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