Special Issue

Advanced Technologies in Quantitative Mineralogy and Elemental Mapping

Message from the Guest Editors

The last two decades have been marked by the development of several innovative ways to automate core logging by bringing spectroscopy as a hyperspectral tool to observe the core using systematic physicochemical–mineralogical signals acquired with electronic-based sensors. Core logging consists in recording and visually measuring information to determine the lithology, mineralogy, geological structures, and alteration zones through cylindrical rock samples drilled and recovered from a potential mineral deposit, the drill core. It is the first in a series of actions aimed at determining the grade, size, and economic viability of a mineral deposit. Innovative spectroscopic-based approaches have the advantage to minimize human interpretation errors. This Minerals Special Issue is aiming to publish state-of-the-art geological core imaging research, gathering the latest progress in the field of core logging. This Special Issue of Minerals invites papers dealing with the use of hyperspectral imaging and multisensor-based imaging technologies for drill core, cuttings, grab samples, metallurgical samples, etc.

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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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