Special Issue

Stratabound Barite Deposits: Mineralogy, Isotope Geochemistry and Geochronology

Message from the Guest Editor

Globally, a large proportion of mined barite is derived from strata-bound deposits hosted in carbonate, clastic, or volcanic rocks. Some of these deposits are ‘world class’ in terms of their tonnage. A thorough understanding of how such deposits formed is of great importance in guiding exploration for further resources. Equally important from an academic perspective is the information that strata-bound barite can provide on past environments and diagenetic to hydrothermal processes, both in the Phanerozoic when marine sulfate was abundant and early in Earth’s history when marine sulfate was scarce. Carbonate-hosted strata-bound barite is often, though not everywhere, associated with epigenetic karst-fill or dissolution-replacement of Mississippi-valley-type (MVT) deposits and with diagenetic transitional to syngenetic Irish-type deposits. This Special Issue provides an opportunity for experts in the field to present mineralogical, isotopic, and geochronological evidence in support of their theories on ore formation in MV-, Irish- and CD-type strata bound barite (-Zn-Pb sulfide) deposits.

Guest Editor

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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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