

Special Issue

Economic Potential and Characteristics of REE Deposits and Other Critical Raw Materials

Message from the Guest Editors

The European Union's (EU) list of critical raw materials is expanding. As of 2020, it contains 30 materials, including Rare Earth Elements (REEs), platinum group metals, while bauxite, lithium, titanium, and strontium have recently been added. REEs are important due to their usage in high-tech applications. The supply of critical raw materials is limited and is derived mostly from non-EU countries. The search for new REE deposits is in progress, as the most important global REE producer is China. As a result of the current metallurgical technology, some deposits whose REE budget is silicate minerals are not economical. The management of the elevated natural radioactivity associated with the REE-enriched minerals is also important.

The purpose of this Special Issue is to provide not only new techniques about beneficiation of critical raw materials like REE leaching, but also analyses of the global market of critical raw materials, along with case studies of new critical raw material deposits that could be economical in the future due to the progress of metallurgical techniques and variations in the prices and global market.

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About the Journal

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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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