

## Special Issue

# Petrogenesis of Large Igneous Province and Rare Earth–Rare Metal Deposits

### Message from the Guest Editors

Large igneous provinces (LIPs) are produced by voluminous magma eruption, and are considered to be closely related to the topographic and environmental changes, as well as major metallogenic events. Rare earth and rare metals (e.g., Li, Be, Nb, Zr, Hf, Sr, Rb and Cs) are among the most important strategic resources in the world, and the worldwide rare earth and rare metal ore deposits of economic importance are commonly associated with carbonatite–alkaline complexes. Specifically, some carbonatite–alkaline complexes are closely related to LIPs. This Special Issue aims to contribute to the petrogenesis of LIPs and carbonatite-related REE deposits. It is organized to focus on the following scientific questions: (1) To reveal the petrogenesis of carbonatite–alkaline complexes in LIPs and their implications on the formation of LIPs; (2) To find out the factors controlling the fractionation and enrichment of light, heavy rare earth elements, and rare metal elements in magmatic–hydrothermal processes; (3) To investigate new scientific models for future exploration and prospecting of rare earth and rare metal resources worldwide.

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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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