

Special Issue

Application of Electron Microprobe Methods in Trace Element Analysis and Geochronology

Message from the Guest Editor

The fantastic power of electron probe microanalysis (EPMA) has been widely exploited in the geosciences since the first conceptualization by Raymond Castaing in his 1951 thesis. EPMA continues to be extensively utilized in the analysis of minerals to evaluate reaction histories and gain insight into the evolution of the Earth and planets. EPMA is also a dynamic, evolving analysis system, with advancements in capabilities continuing to this day. Although trace element applications have been attempted since nearly the inception of EPMA, recent advances in hardware, software, and methodology have enabled an expansion of the frontiers of microanalysis into new realms. For the geosciences, the use of high spatial resolution, high sensitivity trace element analysis is expanding rapidly, including into applications in geochronology. This Special Issue welcomes a broad array of research in the geosciences involving the application of EPMA trace element analysis and geochronology, including techniques, applications, and synergies with other techniques.

Guest Editor

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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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