



Applications of U-Th-Pb Geochronology of Accessory Minerals

Guest Editors:

Prof. Dr. Xiaoping Xia

Guangzhou Institute of
Geochemistry Chinese Academy
of Sciences, Guangzhou 510640,
China

Dr. Chunkit Lai

Fortescue Metals Group, Perth,
WA 6004, Australia

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Message from the Guest Editors

Dear Colleagues,

Accurate age determination is pivotal for studying several geodynamic processes, including magmatism, metamorphism, hydrothermal alteration and mineralization. With the advance of in situ analytical technology (including SIMS, SHRIMP, LA-ICP-MS), high-precision dating has been successfully applied to various uranium-thorium (U-Th)-bearing minerals, in particular zircon, monazite, xenotime, apatite, sphene, and garnet, as well as to different growth zones of individual mineral grains. However, many other minerals may also have age dating potential, and the development of better standards and analytical protocols is critically needed to improve the quality and accuracy of age data. Therefore, in this Special Issue, we invite the submission of papers dedicated to topics including (but not limited to) the geological/tectonic/metallogenic applications and case studies of U-Th-Pb dating, development of U-Th-Pb dating technology/technique and reference materials, and unconventional accessory minerals that are potentially useful in U-Th-Pb dating.





Editor-in-Chief

Prof. Dr. Leonid Dubrovinsky

Bayerisches Geoinstitut,
University Bayreuth, D-95440
Bayreuth, Germany

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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Minerals Editorial Office
MDPI, St. Alban-Anlage 66
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