Special Issue

Applications of U-Th-Pb Geochronology of Accessory Minerals

Message from the Guest Editors

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.

Guest Editors

Prof. Dr. Xiaoping Xia
College of Resources and Environment, Yangtze University, Wuhan 430100, China

Dr. Chunkit Lai
Fortescue Metals Group, Perth, WA 6004, Australia

Deadline for manuscript submissions

closed (30 September 2022)

Minerals

an Open Access Journal by MDPI

Impact Factor 2.2
CiteScore 4.4

mdpi.com/si/113333

Minerals
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
minerals@mdpi.com

mdpi.com/journal/minerals

Minerals

an Open Access Journal by MDPI

Impact Factor 2.2
CiteScore 4.4

mdpi.com/journal/minerals

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.

Editor-in-Chief

Prof. Dr. Leonid Dubrovinsky
Bayerisches Geoinstitut, University Bayreuth, D-95440 Bayreuth, Germany

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), GeoRef, CaPlus / SciFinder, Inspec, Astrophysics Data System, AGRIS, and other databases.

Journal Rank:

JCR - Q2 (Mining and Mineral Processing) / CiteScore - Q1 (Geology)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 18.2 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the first half of 2025).

MDPI