minerals

an Open Access Journal by MDPI

IMPACT FACTOR 2.2

CITESCORE 4.1

Fission Track Analysis and Its Application in Mineralogy

Guest Editor:

Dr. Carlos Alberto Tello Sáenz
Departamento de Física, Universidade Estadual Paulista "Júlio de Mesquita Filho", Sao Paulo 19060-900, Brazil

Deadline for manuscript submissions:
closed (24 October 2022)

Message from the Guest Editor

Dear Colleagues,

Apatite and zircon are common accessory minerals in igneous, metamorphic, and sedimentary rocks. Recently, there have significant advances in the understanding of the temperature dependence of fission track annealing and fission track length distributions. Fission track analysis provides detailed information on the low-temperature thermal histories of rocks and may be applied below ~120 ºC for tracks in apatite and below ~350 ºC for zircon. Both fission track and U-Pb, which are obtained from the same zircon and/or apatite grains, are widely used to study the thermochronology of different areas of geological interest. With these methodologies, it is possible to determine in-depth information for temperatures below ~800 ºC for U-Pb in zircon and ~500 ºC for U-Pb in apatite. Furthermore, fission track and U-Pb methodologies show excellent potential in elucidating solutions to a variety of geological problems, including sedimentary provenance, thermal history modeling of sedimentary basins, structural evolution of orogenic belts, and long-term continental denudation.

Dr. Carlos Alberto Tello Sáenz
Guest Editor

minerals

an Open Access Journal by MDPI

IMPACT FACTOR 2.2

CITESCORE 4.1

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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.
High Visibility: indexed within Scopus, SCIE (Web of Science), GeoRef, CaPlus / SciFinder, Inspec, Astrophysics Data System, AGRIS, and other databases.
Journal Rank: JCR - Q2 (*Mineralogy*) / CiteScore - Q2 (*Geology*)

Contact Us

Minerals Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/minerals
minerals@mdpi.com
𝕏@Minerals_MDPI/