Special Issue

Near-Field Processes and Evolution toward to Assessment of Radionuclide Migration in Geological Disposal of High-Level Radioactive Waste

Message from the Guest Editors

Topics related to the following aspects, including laboratory experiments, in situ experiments, and modeling studies, will be considered for this Special Issue: Early processes and the evolution of the engineered barrier system (EBS):

- The corrosion of the canister/container/overpack;
- THM processes and the evolution of the bentonite buffer (e.g., thermal processes, hydraulic/gas processes, mechanical processes, coupled processes and evolution);
- Geochemical processes and the evolution of the bentonite buffer (e.g., salt accumulation, cementation, buffer chemical evolution);
- Piping and/or erosion.

Long-term processes and the evolution of the near-field (NF):

- Interactions of different materials (e.g., iron–bentonite interactions, cement–bentonite interactions, or cement–rock interactions);
- Organic/microbe/colloid influence on radionuclide migration;
- Sorption and/or diffusion behavior in the EBS and the surrounding rock mass;
- Coupled modeling with radionuclide migration.

Guest Editors

Dr. Hiroshi Sasamoto

Dr. Yukio Tachi

Dr. Randy Arthur

Dr. James Wilson

Deadline for manuscript submissions

closed (27 October 2023)

Minerals

an Open Access Journal by MDPI

Impact Factor 2.2
CiteScore 4.4

mdpi.com/si/121950

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