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

Guest Editors:

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Deadline for manuscript submissions: closed (27 October 2023)



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., ironbentonite 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.



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Message from the Editor-in-Chief

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