



## CALL FOR PAPERS

Geothermal systems, including hydrothermal systems, enhanced geothermal systems, and superhot or supercritical systems, are receiving an increasing interest because they provide carbon-free energy necessary to shift the current dependency on hydrocarbons and, thus, significantly reduce CO<sub>2</sub> emissions to the atmosphere. Compared to other renewable energies, geothermal energy has the advantage that it does not present daily and seasonal fluctuations. Furthermore, negative emissions can be achieved if CO<sub>2</sub> is used as the working fluid. However, the deployment of geothermal systems is being hindered by insufficient permeability of the reservoir rock, excessive induced seismicity during reservoir stimulation, and geochemical reactions accelerated by high temperature that lead to corrosion and scaling.

We encourage submissions to this issue that focus on geomechanical and fluid flow aspects of geothermal systems. Contributions devoted to the study of coupled processes occurring in multiphase systems, experimental characterization of rock and inelastic deformation that may induce seismicity, and fracture propagation are especially welcome. These coupled processes span over multiple scales, spatially from the pore scale to the reservoir scale and temporally from nanoseconds to thousands of years. Other innovative aspects of geothermal systems, which may include CO<sub>2</sub> geothermal, energy storage in the subsurface, and novel stimulation techniques, are also welcome. Review articles that describe the current state of the art are also encouraged.

Potential topics include but are not limited to the following:

- ▶ Multiphase flow, reactive transport, and coupled processes in reservoir rock, including sedimentary and crystalline rock
- ▶ Experimental characterization of geothermal fluid processes
- ▶ Inelastic deformation and induced seismicity in geothermal fluid systems
- ▶ Hydrothermal systems
- ▶ Enhanced geothermal systems
- ▶ Stimulation design (hydraulic/thermal/chemical)
- ▶ Propagation of hydraulic fractures in reservoir rock
- ▶ Chemomechanical effects on permeability evolution
- ▶ Multiphase flow through fractured media
- ▶ Remote sensing and monitoring
- ▶ Superhot/supercritical geothermal fluid systems
- ▶ Coupling superhot geothermal systems and "in situ leach mining"

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/geofluids/ggs/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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