

## **PREFACE: FLUID FLOW AND HEAT TRANSFER IN COMPLICATED SUBSURFACE POROUS/FRACTURED GEOMATERIALS**

Understanding the fluid flow and heat transfer behavior in porous or fractured media is crucial to geoenergy technologies that utilize favorable geological conditions to store or extract fluids from the subsurface through a variety of engineering fields (e.g., pollutant transport, petroleum engineering, carbon sequestration, and geothermal engineering). This special issue concentrates on the improved experimental methods, model construction, and different numerical methods for heat and mass transfer in porous and fractured media related to various geosciences and geomechanics fields. It covers the following topics:

- Porous and fractured media characterization and model construction
- Experimental investigation on heat and mass transfer in porous and fractured media
- Pore-scale/multi-scale simulation of heat and mass transfer processes in porous/fractured media
- Complicated seepage issues related with pollutant transport, petroleum engineering, carbon sequestration, geothermal engineering, etc.
- Application of improved numerical methods in subsurface seepage in porous and fractured media.

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