

Special Issue on
**Advances of Unconventional Flow and Transport in
Petroleum and Chemical Engineering**

CALL FOR PAPERS

Correct understanding of flow, heat, and mass transport in chemical and petroleum engineering is very important for the design and optimization of processes. In the past decades, fine oil recovery and fine chemical industry have demanded a better understanding of nonlinear flow and transport behavior, for example, by multiphysical coupling, which is beyond the conventional theories. Developments in theories, methods (both in experiment and in modeling), and technologies have brought about numerous achievements in the past ten years for the unconventional flow and transport in such engineering applications.

This special issue therefore is aiming at a collection of state-of-the-art advances of unconventional flow and transport in chemical and petroleum engineering. We emphasize unconventional ones either in study subject or in methodology. Particularly, multiphysiochemical coupling or multiscale transport in complex systems is welcome.

Potential topics include but are not limited to the following:

- ▶ Non-Darcy flow in petroleum and chemical engineering
- ▶ Nonlinear diffusion in organic and inorganic microporous media
- ▶ Thermohydromechanical coupling in tight rocks
- ▶ Enhanced oil/gas recovery for unconventional resources
- ▶ Multiscale modeling and analysis

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