Special Issue

Investigation of Mechanisms Responsible for Enhanced Oil Recovery

Message from the Guest Editor

Increasing global demand for energy sources promotes extensive research into enhanced oil recovery (EOR) methods. The main challenge in applying different EOR methods has always been associated with limited understanding of the underlying mechanisms responsible for improved oil recovery. Experimental data obtained from coreflooding tests on clastic and carbonate rocks are scarce and the results are sometimes inconsistent and even contradicting. On the other hand, numerical simulations performed on length scales ranging from nanometers to kilometers and employing pore network, molecular dynamic and conventional reservoir simulation methods still encounter challenges related to upscaling procedures, inconsistent description of rock properties across different scales, and eventually lack the ability to accurately describe and predict gains from applied EOR methods. The Special Issue inviting papers on recent advancements in EOR methods. The Special Issue welcomes papers reporting experimental studies on multiple scales as well as numerical and theoretical works that focus on explaining the complex underlying mechanisms of well-established and novel EOR methods.

Guest Editor

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Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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