

Special Issue

Engineering Problems in the Development of Unconventional Oil and Gas Reservoirs

Message from the Guest Editors

Unconventional hydrocarbon accounts for approximately 80% of the total oil and gas resources all over the world. The development of unconventional reservoirs constitutes a significant guarantee for realizing the transformation of the global energy mix. The representative engineering challenges in unconventional oil and gas extraction include cross-scale reservoir characterization and evaluation, stress field and natural fracture description and evolution, prediction and real-time tracking of artificial fracture network propagation, rapid and safe drilling, and dynamic optimization of fracturing stimulation methods. This Special Issue aims to assemble original research works attempting to solve aforementioned problems. Relevant aspects include, but are not limited to, the following:

- Laboratory experiments involving advanced techniques;
- Simulation coupling multi-physical fields;
- Machine learning used for enhancing unconventional reservoirs;
- Correlations among multiple scales;
- Filed applications of new theories and methodologies.

Guest Editors

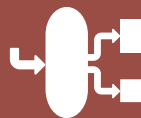
Dr. Junliang Zhao

Prof. Dr. Huiying Tang

Dr. Haibin Chang

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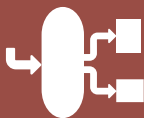


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Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
processes@mdpi.com

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Editor-in-Chief

Prof. Dr. Giancarlo Cravotto

Department of Drug Science and Technology, University of Turin, Via P. Giuria 9, 10125 Turin, Italy

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