Special Issue

Recent Advances in Enhanced Oil Recovery for Unconventional Oil and Gas

Message from the Guest Editors

The development of unconventional oil and gas resources, including shale oil, tight oil, and coalbed methane, has revolutionized global energy production. However, the low permeability and complex pore structures of these reservoirs present significant challenges for hydrocarbon recovery.

Enhanced oil recovery (EOR) technologies aim to improve hydrocarbon recovery by altering the physical or chemical properties of the fluids within a reservoir or by modifying the permeability of the reservoir rock. Recently, advancements in science and technology, along with in-depth research, have led to significant progress in EOR methods, including thermal, chemical, gas injection, microbial methods, and other techniques that are widely employed in oilfield development. However, EOR still encounters numerous bottlenecks and challenges related to geology and engineering during practical application.

Guest Editors

Dr. Wenhao Li

Dr. Saipeng Huang

Dr. Wenming Ji

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

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Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

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