Special Issue

New Technologies for Enhanced Oil Recovery

Message from the Guest Editors

Conventional EOR methods have entered a transformative phase, shaped by intersecting innovations across green chemistry, nanotechnology, hybrid recovery techniques, and EOR with decarbonization strategies. This Special Issue aims to present and disseminate the most recent advancements in EOR, with a focus on innovative materials, hybrid processes, and data-driven strategies that address the challenges of modern reservoirs. Contributions are encouraged in the areas of chemical, thermal, gas-based, and integrated EOR technologies. This Special Issue also welcomes studies that explore the role of EOR in conjunction with the storage potential of CO2, as well as advanced simulation or AI-optimisation tools that enhance decision-making and field-scale recovery efficiency. Detailed Topics

- Development of new chemical agents, including surfactants, polymers, and nanoparticles.
- Advances in thermal recovery techniques for heavy oil.
- CO2-EOR innovations, including methods that integrate CO2 storage with oil recovery.
- Hybrid EOR approaches combining mechanisms.
- Reservoir simulation for field-scale EOR design.
- AI technology for EOR optimisation tools.

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Message from the Editor-in-Chief

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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