

Special Issue

Unconventional Energy Exploration Technology

Message from the Guest Editor

As global energy demands rise, the transition to sustainable systems is urgent. Unconventional energy resources, including shale gas, methane hydrates, geothermal reservoirs, hydrogen energy, and bioenergy, are critical for the future energy portfolio. Advances in exploration technologies, data-driven optimization, and sustainable practices are essential for responsibly unlocking these resources. This Special Issue aims to present cutting-edge advancements in the exploration, extraction, environmental management, and sustainable integration of these resources, covering fundamental theory, technological innovations, numerical modeling, and machine learning research. Topics of interest include:

- Advanced Geophysical Exploration Technologies
- Horizontal Drilling and Production Technology
- Energy Storage Technologies
- Fracturing Technologies
- AI-Driven Modeling for Energy Systems
- Numerical Simulation Methods for Flow in Porous Media
- Policy and Economic Analysis of Unconventional Energy
- Environmental Risk and Sustainability Assessment.

Guest Editor

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About the Journal

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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