Special Issue

Challenges and Promises on the Gas Hydrate Development and Production as a New Energy Resource

Message from the Guest Editors

Energy and climate crises pose serious threats to human society. As an energy source with extraordinary potential in the 21st century, natural gas hydrate (NGH) has a broad space for excavation. Currently, all production methods meet many problems, such as low permeability, secondary hydrate formation, sand production, low gas production, a small product range, and short stable gas production cycles, which restrict the exploitation of NGH. Authors are invited to submit papers in the field of gas hydrates as an energy resource by focusing on the following topics: Economic and political aspects of gas hydrate exploitation. Chemical and physical aspects for a deeper comprehension of the kinetics and thermodynamics of methane delivery and hydrate formation. Engineering aspects related to new method for gas extraction, CO2 injection and replacement process, drilling problems, hydraulic fracturing, burden sealing, and near-well reconstruction, hydrate storage, transportation, and flow assurance. Environmental sustainability evaluations.

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Deadline for manuscript submissions

25 August 2025

Energies

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 7.3

mdpi.com/si/178303

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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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