

Special Issue

Natural Gas Hydrates as Energy Resource: Prospects and Challenges

Message from the Guest Editors

An overview of the natural gas hydrate environments and their characteristics, such as concentration and composition, petrophysical properties, depth, and pore water salinity should be considered as a starting point to assess environmental conditions before any operation in natural hydrate reservoirs, such as methane recovery and/or CO₂ sequestration. The baseline information, such as geotechnical and geochemical reactions, are indispensable to model and predict the evolution of a reservoir during and after human activities on it. Thus, a multidisciplinary group and an interdisciplinary approach are indispensable to characterize a natural gas hydrate reservoir and predict the possible scenarios about gas hydrate production to evaluate the level of risks and to differentiate between natural gas hydrate destabilization (e.g., climate change) and induced through production activities. This Special Issue aims to collect the most innovative studies and points of view related to all steps of the exploitation of natural gas trapped in natural gas hydrate reservoirs, such as the environmental impact and methane recovery.

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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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