

Special Issue

Hydrate Formation Kinetics and Hydrate Derivatives' Applications

Message from the Guest Editor

Natural gas hydrate (gas hydrate), also known as combustible ice, is an ice-like crystalline compound, formed by different guest molecules and water under high-pressure and low-temperature conditions. It is a huge reserve of clean energy that is usually found in the seabed and permafrost on land. However, the hydrate formation rate and gas uptake of a pure water system is relatively slow, thereby necessitating efficient technologies to enhance the formation of hydrate to improve the reaction rate and to increase the gas capacity. We invite submissions of original research that address a range of topics related to hydrate formation kinetics and the applications of hydrate derivatives.

These may include, but are not limited to:

- Hydrate formation kinetics;
- Hydrate's *basic physical properties*;
- Hydrate-based gas separation (HBGS) technology;
- Molecular simulation;
- Natural gas solid transportation and storage;
- Carbon capture and sequestration (CCS);
- Hydrate-based desalination (HBD) technology.

Guest Editor

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Deadline for manuscript submissions

closed (20 October 2024)



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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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