



Hydrate Formation Kinetics and Hydrate Derivatives' Applications

Guest Editor:

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Deadline for manuscript
submissions:

20 October 2024

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.





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Message from the Editor-in-Chief

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