



Advances in Gas Hydrate Development: Phase Transition, Multiphase Flow and Heat-Mass Transfer

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Message from the Guest Editors

Dear Colleagues,

To eliminate the global threat of energy shortage and climate change, considerable interest has been drawn on the exploitation of gas hydrate, due to its enormous energy reserves around the world. Many countries have devoted great efforts in gas hydrate-related research areas, and several field-scale production trials have been conducted in the USA, Canada, Japan, and China. Hydrate dissociation is a kinetics-controlled chemical reaction which is associated with various complex processes such as phase transition, heat-mass transfer, and multiphase fluid flow in porous media. The dissociation of hydrate particles will also cause the possibility of reservoir deformation due to the decrease in strength in porous media. Although considerable research has been conducted and substantial progress has been made in gas hydrate areas, knowledge gaps still remain with respect to these fundamental issues. The purpose of this Special Issue is to provide a comprehensive summary of the progress in the field of gas hydrate development. Other relevant topics with gas hydrate are also encouraged to be presented in this collection.





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Message from the Editor-in-Chief

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