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# Multiphase Flow and Heat and Mass Transfer in Industrial Complex Processes and Reactors

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## **Message from the Guest Editors**

This Special Issue focuses on the critical aspects of multiphase flow and heat and mass transfer in complex industrial processes and reactors. Multiphase flow systems, where gases, liquids, and solids interact dynamically, are fundamental to a wide range of industries, including chemical processing, energy production, pharmaceuticals, food manufacturing, and environmental engineering. Understanding and optimizing these systems are essential for improving efficiency, product quality, and sustainability. The scope of this Special Issue encompasses both theoretical and experimental studies that provide insights into the mechanisms of multiphase flow and associated heat and mass transfer phenomena. We invite contributions that explore innovative methodologies. modeling techniques, and cutting-edge advanced technologies relevant to industrial applications.

We are particularly interested in papers presenting advanced modeling and simulation techniques like computational fluid dynamics (CFD) and discrete element method (DEM), novel experimental methods, process optimization strategies, and real-world industrial case studies.











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## Message from the Editor-in-Chief

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