



Multiscale Modeling and Numerical Simulation of Multiphase Flow

Guest Editors:

Dr. Yupeng Xu

National Energy Technology
Laboratory, Morgantown, WV
26507, USA

Dr. Xiaogang Shi

State Key Laboratory of Heavy Oil
Processing, China University of
Petroleum, Beijing 102249, China

Dr. Lei Yang

Institute of Process Engineering,
Chinese Academy of Sciences,
Beijing 100190, China

Deadline for manuscript
submissions:

25 December 2024

Message from the Guest Editors

This Special Issue on ‘Multiscale Modeling and Numerical Simulation of Multiphase Flow’ seeks high quality papers focusing on the multiscale simulation of different multiphase flow system. Topics include, but are not limited to:

- Development, verification and validation of advanced multiscale numerical models such as Direct Numerical Simulation, Discrete Element Method, Two Fluid Model, MPPIC, etc.
- Model development for interphase drag, heat and mass transfer.
- Coupling of multiscale models with machine learning.
- Utilization of multiscale models in solving different industrial problems.
- Design and optimization of various industrial reactors using multiscale modeling.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Giancarlo Cravotto

Department of Drug Science and
Technology, University of Turin,
Via P. Giuria 9, 10125 Turin, Italy

Message from the Editor-in-Chief

Processes (ISSN 2227-9717) provides an advanced forum for process/system-related research in chemistry, biology, material, energy, environment, food, pharmaceutical, manufacturing and allied engineering fields. The journal publishes regular research papers, communications, letters, short notes and reviews. Our aim is to encourage researchers to publish their experimental, theoretical and computational results in as much detail as necessary. There is no restriction on paper length or number of figures and tables.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, AGRIS, and other databases.

Journal Rank: JCR - Q2 (*Engineering, Chemical*) / CiteScore - Q2 (*Chemical Engineering (miscellaneous)*)

Contact Us

Processes Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/processes
processes@mdpi.com
[X@Processes_MDPI](https://twitter.com/Processes_MDPI)