Special Issue

Synergetic Applications of Machine Learning and Chemical Engineering

Message from the Guest Editors

This Special Issue on "Synergetic Applications of Machine Learning and Chemical Engineering" seeks high-quality contributions focusing on the latest advances in applications of machine learning in chemical engineering. The topics within the scope of this issue include, but are not limited to, the following:

- Modeling and simulation of chemical processes using machine learning (e.g., reaction kinetics, mass and heat transfer, process dynamics, population balance modeling
- Machine learning in crystallization processes (e.g., nucleation prediction, crystal growth modeling, polymorph control)
- Optimal design and operation of chemical engineering units (e.g., catalytic reactors, separation units, energy systems)
- Real-time optimization and self-optimization using machine learning techniques
- Advanced control strategies incorporating machine learning (e.g., predictive control, adaptive control, process monitoring
- Machine learning in process safety and risk assessment (e.g., hazard identification, failure prediction, safety system design)
- etc.

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Message from the Editor-in-Chief

You are invited to contribute either a research article or a comprehensive review for consideration and publication in *Processes* (ISSN 2227-9717). *Processes* is published in open access format – research articles, reviews, and other content are released on the internet immediately after acceptance. The scientific community and the general public have unlimited, free access to the content. As an open access journal, *Processes* is supported by the authors and their institutes through the payment of article processing charges (APCs) for accepted papers. We would be pleased to welcome you as one of our authors.

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