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Data-Driven Modeling, Optimization and Control for Chemical Processes

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Message from the Guest Editors

Dear Colleagues,

Advances in digitalization, big data generation, collection, and analytics, as well as advanced computing, have revolutionized the modeling, optimization, and control of modern chemical process systems. In this Special Issue, we showcase original research articles and review articles that focus on the latest advancements and real-world applications of data-driven methods for chemical process modeling, optimization, and process control.

The topics covered in this Special Issue include simple yet powerful linear regression modeling, cutting-edge artificial intelligence modeling approaches, model-based optimization and control, and model-free control strategies (such as reinforcement learning) applied to a wide range of chemical process systems (such as crystallization, flow reactors, self-assembly, separations, and so on).











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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.

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