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AI / Machine Learning Techniques as a Tool for Process Modeling and Product Design

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Message from the Guest Editor

This Special Issue on "AI / Machine Learning Techniques as a Tool for Process Modeling and Product Design" is devoted to the most recent developments in the fields of modeling of physicochemical systems, notably on the basis of data-driven techniques, with specific focus on process modeling and product design applications. In this sense, original contributions are welcome in the following —or other relevant—topics of interest:

- Smart sensors and plant digitalization;
- Big data and analytics in industrial-scale applications;
- Process modeling, control and optimization via data-driven techniques;
- Implementation of machine learning methods for dimensionality reduction, fault detection, maintenance prevention and predictive modeling;
- Deep-learning techniques in process/product design and/or performance modeling;
- Digital twins in industrial applications;
- Modeling of product properties and functionalities within a quality-by-design approach;
- Hybrid models, combining knowledge-based and data-driven modeling techniques.
 Integrated models of different ML methods.











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Message from the Editor-in-Chief

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