



Advanced Chemical Reaction Kinetics of Pharmaceutical Processes

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Message from the Guest Editors

This Special Issue aims to integrate the novel advances in the development of theoretical, computational, and experimental works on advanced chemical reactions to address scientific and technical difficulties/opportunities related to (bio) pharmaceutical processes.

- Design and control of multiphase pharmaceutical reactor systems;
- Experimental studies, mechanistic modeling, flowsheet simulation, process control, and process optimization for the following reaction systems during drug development:
- Fundamental understanding of structure–property relationships in catalysts and pharmaceutical materials;
- Enhanced understanding of drug substance stability, e.g., degradation due to oxidation by kinetic rate determination;
- Alternative route of drug substance synthesis based on quantitative coupling of experiment/theory for kinetic reactions;
- Kinetic of drug synthesis by a continuous manufacturing approach, such as flow chemistry;
- Recent advancements in numerical simulations of reaction–diffusion phenomena;
- Monte Carlo simulations for enhance pharmaceutical kinetic understanding;
- Bioreactor design and role of reaction mechanism in drug product development;





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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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