

Advanced Chemical Reaction Kinetics of Pharmaceutical Processes

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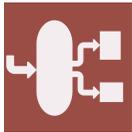
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Message from the Guest Editors

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

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Rapid Publication: manuscripts are peer-reviewed and a first decision provided to authors approximately 11.6 days after submission; acceptance to publication is undertaken in 3.4 days (median values for papers published in this journal in the first half of 2021).

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