

Special Issue

Chemical Kinetics and Computational Fluid Dynamics Applied to Chemical Reactors Analysis and Design

Message from the Guest Editors

Continued progress in computing hardware and software are markedly affecting the approaches adopted to chemical processes equipment analysis and design. Particularly, Computational Fluid Dynamics (CFD) is becoming an increasingly used tool in many fields within Chemical Engineering. Chemical reactors are one of the exemplifying cases of the sorts of equipment benefitted by the abovementioned progress, the design of which may be notably improved by the use of CFD. CFD modeling allows a complete description of the phenomena governing reactor performance, thus, giving rise to an unprecedented powerful tool to guide design and scale-up. This Special Issue aims at compiling relevant contributions showing the capabilities of CFD applied to the analysis and design of any type of chemical reactor. Manuscripts in which the modeling results are validated by experimental evidence are particularly welcome.

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About the Journal

Message from the Editor-in-Chief

ChemEngineering is to consolidate its position as a high-quality, open access journal that not only disseminates excellent research but also sets the agenda for future directions in chemical engineering. We will continue to highlight core areas such as catalysis, process intensification, and the circular economy, while also opening the door to emerging topics such as multi-energy systems that integrate light, heat, and electricity, etc., as well as digital tools, modelling, and artificial intelligence applied to chemical engineering.

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