





Special Issue Reprint

# Industrial Chemistry Reaction: Kinetics, Mass Transfer and Industrial Reactor Design (II)

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Edited by Elio Santacesaria Riccardo Tesser Vincenzo Russo

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The impressive progress in commercially available computers nowadays allows the solving of complicated mathematical problems in many scientific and technical fields. This revolution has created a surge in chemical engineering science. More sophisticated approaches to catalysis, kinetics, reactor design and simulation have been developed thanks to the powerful new calculation methods available. It is well known that many chemical reactions of great interest for industrial processes and conducted on a large scale need information ranging from thermodynamics to kinetics and transport phenomena related to mass, energy and momentum. For a reliable industrial-scale reactor design, all of this information must be employed into appropriate equations and mathematical models that allow for accurate and reliable simulations for scale-up purposes. A challenge is to collect, in a measurable volume, the main advances and trends in the field of industrial chemistry thanks to the contributions of some pioneers of scientific and technological progress. We can achieve this by reviewing their past activity in the field, or providing, through original manuscripts, examples of the modern approach to the investigation of industrial chemistry reactions.





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