



reactions



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Advances in Resistive and Inductive Heating Reactions

Guest Editor:

Prof. Dr. Evgeny Rebrov

School of Engineering, University
of Warwick, Library Road,
Coventry CV4 7AL, UK

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submissions:

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Message from the Guest Editor

Dear Colleagues,

Heating by induction or resistive (ohmic) heating are two promising technologies that allow the delivery of heat directly to the catalyst zone. Close contact between the heat source and the catalytic sites enhances the reaction rate and increases catalyst utilization. This drives a reaction from the equipment limits to the limits of intrinsic kinetics. In addition, the approach provides the increased process flexibility and scalability of reactor design, greater compactness, and uniform heat delivery to the catalyst zone, which could often improve selectivity.

This Special Issue invites original research papers covering all aspects of reactor and material development for inductive and resistive (ohmic) heating, including, but not limited to, the following topics: the development of magnetic catalysts for inductive heating; direct electrification of structured catalytic reactors; inductive and resistive heating reactor design and scale-up; development of equipment for non-conventional heating; numerical investigation of inductive and resistive heating processes.



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Special Issue