

Call for Papers for the Special Issue on “Exploring Reaction Engineering in Hydrogen Metallurgy: Theory, Practice, and Future Prospects”

The escalating global emphasis on sustainable energy and environmental conservation has thrust reaction engineering in hydrogen metallurgy into prominence. This nascent metallurgical technology harbors immense potential for carbon emission reduction and energy efficiency enhancement. Nevertheless, despite the swift progression of research in this domain, numerous theoretical and practical aspects remain unresolved and unexplored.

Reaction Engineering, which concentrates on momentum, heat, and mass transfer within a reactor as well as macroscopic reaction kinetics, is pivotal to the evolution of novel metallurgical technologies, reactors, and production processes. The exploration of reaction engineering in hydrogen metallurgy will significantly contribute to these advancements.

The International Journal of Chemical Reactor Engineering is planning a special issue titled “Exploring Reaction Engineering in Hydrogen Metallurgy: Theory, Practice, and Future Prospects” in 2024 (regular issue) to showcase cutting-edge studies on recent advancements in this field. The guest editors for this special issue are Assoc. Prof. Heng Zhou (zhouheng@ustb.edu.cn), Prof. Mingyin Kou (koumingyin@ustb.edu.cn) from the University of Science and Technology Beijing, and Assoc. Prof. Lei Shao (shaolei@smm.neu.edu.cn) and Assoc. Prof. Zhiguo Luo (luozg@smm.neu.edu.cn) from Northeastern University. We cordially invite you to submit your original contributions to this special issue. Articles encompassing but not limited to the following topics are welcome:

- (1) Reaction mechanisms in hydrogen metallurgy and their mathematical models.
- (2) Design and optimization of equipment and processes in hydrogen metallurgy.
- (3) Energy efficiency and environmental impact of reactions in hydrogen metallurgy.
- (4) Application of hydrogen in actual production.

Submission of manuscript:

- 1) The first submission date: January 1, 2024.
- 2) The final submission deadline: May 31, 2024.
- 3) Manuscript should be submitted in a style consistent with the “IJCRE Instructions for Authors” of International Journal of Chemical Reactor Engineering.
- 4) The manuscript should be submitted via International Journal of Chemical Reactor Engineering online submission site on the following URL:
<https://mc.manuscriptcentral.com/dgijcre>