

## Special Issue

# Recent Advances of Diffusion Thermodynamics and Kinetics in Metallic Materials

### Message from the Guest Editors

Diffusion is a phenomenon closely linked to the random thermal motion of atoms, resulting in a change in the macroscopic concentration profile. This process can be observed in different states of matter including gases, liquids, and solids such as amorphous and crystalline metals. The study of diffusion provides significant information about the atomic structure of materials and their defects, which is invaluable in several fields including materials science and engineering. Diffusion plays a critical role in controlling the rates of kinetic processes associated with the synthesis of materials, their modification, and their failure. Therefore, understanding diffusion mechanisms is crucial for the design and development of materials with specific properties and functionalities.

In light of the above, we are pleased to invite you to submit a manuscript for this Special Issue focusing on theoretical and experimental work related to diffusion thermodynamics and kinetics in metallic materials. Original research articles, communications, and reviews are all welcome.

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### Guest Editors

Prof. Dr. Martín Ortíz-Domínguez

Ingeniería Mecánica, Escuela Superior de Ciudad Sahagún, Autonomous University of Hidalgo State, Ciudad Sahagún 43990, Hidalgo, Mexico

Prof. Dr. Oscar Armando Gómez-Vargas

Departamento de Posgrado, Tlalnepantla Institute of Technology, Estado de México 54070, México

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### Deadline for manuscript submissions

closed (30 January 2025)



## Metals

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*Metals*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[metals@mdpi.com](mailto:metals@mdpi.com)

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## About the Journal

### Message from the Editor-in-Chief

Metallic materials play a vital role in the economic life of modern societies; contributions are sought on fresh developments that enhance our understanding of the fundamental aspects related to the relationships between processing, properties and microstructure – disciplines in the metallurgical field ranging from processing, mechanical behavior, phase transitions and microstructural evolution, nanostructures, as well as unique metallic properties – inspire general and scholarly interest among the scientific community.

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### Editor-in-Chief

Prof. Dr. Yong Zhang

Beijing Advanced Innovation Center of Materials Genome Engineering,  
State Key Laboratory for Advanced Metals and Materials, University of  
Science and Technology Beijing, 30 Xueyuan Road, Beijing 100083,  
China

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