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Advanced Metallurgy Technologies: Physical and Numerical Modelling

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Message from the Guest Editors

Metals continue to be a source of innovative engineering materials applicable to almost all industries. Iron, aluminum, copper, zinc, nickel, cobalt, titanium, etc. will continue to be essential components of key metallic alloys for a long time to come. Therefore, the development of metallurgical technologies creates space for the production of metallic alloys with new unique properties. In the production cycle of metal products, all technological stages require a strategic approach. Starting from pyro- or hydrometallurgical reduction processes, through smelting, refining, casting, plastic working, and chemical or heat treatment, the metals initially concentrated in the ore obtain unique features in the final product. Of course, in the era of the circular economy, the processes of recovering metals from secondary sources are of great importance. Currently, the results obtained from experiments on physical models or numerical simulations determine the scientific progress in the field of metallurgical technologies. Both research techniques complement each other and reliably reflect the industrial conditions.













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Message from the Editor-in-Chief

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