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Recent Advances in Metallurgical Process Engineering

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Message from the Guest Editors

One focus of modern metallurgical processes is the application of additive manufacturing, 3D welding, organic design, complex material analysis, modern virtualization tools and numerical simulations, and the digitization of steel components for mechanical engineering. An integral aspect is the optimization of the components for mechanical engineering using organic design to improve technological and utility properties. New findings will lead to a reduction in the energy and material demands of the production.

A general task is to engage in research and development regarding the digitization of metallurgical processes using a combination of modern virtualization tools such as numerical simulation, digitization of key components, collection, sorting, visualization and the evaluation of data from the production process with the possibility of optimizing numerical simulation parameters. One integral aspect could be the overall streamlining of the production process preparation, implementation and optimization.

This Special Issue will be dedicated to new perspectives in the metallurgical sector as well as advances in metallurgical process engineering.





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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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