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Microstructure Design of Materials via Machine Learning: Advantage, Challenges, Applications, and Perspectives

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Message from the Guest Editors

This Special Issue aims to gather the latest advances in the field of the microstructure design of materials using machine learning techniques, focusing on the advantages, challenges, applications, and perspectives of the microstructure design of materials using machine learning. We are particularly interested in novel structures, algorithms, and methodologies that exploit the potential of machine learning to optimize material microstructures for achieving enhanced properties. Additionally, unconventional applications, such as measurement techniques and computational models, that contribute to microstructure development are also encouraged.

We encourage submissions that explore various material systems and properties, as well as studies that highlight the potential and limitations of machine learning in the microstructure design of materials. We believe that this Special Issue will offer a comprehensive overview of the advantages, challenges, and future perspectives of material design through machine learning.

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Message from the Editor-in-Chief

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