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Grain Boundary Segregation and Related Phenomena in Metals and Alloys

Guest Editor:

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Message from the Guest Editor

Grain boundary segregation has a large impact on grain boundary properties. Certain solute atoms can concentrate at the boundaries and drastically change various material properties.

After the introduction of structural units for the description of grain boundary structures in the second half of the last century, interface chemistry has achieved an important development both due to new theoretical models and improved experimental techniques.

The aim of this Special Issue is to demonstrate recent progress including new concepts regarding the grain boundary complexions considered for the transformation of two-dimensional interfacial structures and summarized reliable experimental results that are also essential for material technological applications.

The research in this field covers materials design via grain boundary engineering, the stabilization of nanocrystalline structures, and nonequilibrium phenomena due to irradiation, to mention only a few special cases.

Dr. Václav Paidar
Guest Editor

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Special Issue

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Message from the Editor-in-Chief

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