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Heterogeneities in Metallic Glasses

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Message from the Guest Editors

Research on metallic glasses started in 1960 after Duwez et al. demonstrated the formation of an Au–Si metallic glass ribbon. In the end of the 1980s and the beginning of the 1990s, the topic gained popularity due to the development of bulk metallic glasses of several millimeters in diameter. Still, only recently did it become possible to directly look at the structure at the atomic level and test properties on nanometer scales. This has demonstrated that the structure of metallic glasses is not homogeneous at this level. Therefore, a lot of research is dedicated towards tailored heterogeneous metallic glasses, including glasses with crystalline inclusions and glasses with chemical or structural heterogeneities.

We want to dedicate this Special Issue to the investigations of the heterogeneous structure of metallic glasses and their influence on mechanical or functional properties. The Special Issue welcomes original research papers and reviews on the production of metallic glasses containing heterogeneities, their structural analysis with advanced experimental techniques, and on computer simulations targeted at the atomic configuration and the effect of heterogeneities.











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Message from the Editorial Board

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 metallurgical field the 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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