Special Issue

Dynamic Recrystallization Behavior of Metallic Materials

Message from the Guest Editor

This Special Issue of *Metals* deals with all aspects of the dynamic recrystallization of metals and alloys. The topic is not new, but still represents a very active research area, due to the complex multiscale nature of the problem, and its industrial importance. A better understanding of dynamic recrystallization phenomena implies the use of predictive models at different scales, which describe the complex evolutions of interface patterns, looking at the local kinetic equations, and at the global meso- or macroscopic resulting properties. Experimental approaches also explore the dynamics of interfaces at different scales, looking at nucleation phenomena, texture changes, interaction between moving boundaries and dislocations structures, boundary mobility and energy, coupling with twinning, phase transformation and precipitation. At the laboratory scale, the possibility to explore dynamic recrystallization in macroscopic samples from the measurement of temperature, stress/strain, strain rate, geometry or resistivity changes, deserves further investigation.

Guest Editor

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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 the metallurgical field 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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