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Environmental Degradation of Multi-Principal-Element Alloys: Aspects of Corrosion and High-Temperature Oxidation

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Deadline for manuscript submissions:
closed (28 February 2023)

Message from the Guest Editor

Dear Colleagues,

Multi-principal-element alloys (MPEA) and high-entropy alloys (HEA) have attracted the attention of the metallurgy community because of the distinct and innovative concept on which their preparation is based. This concept involves the combination of several main elements in substantial concentrations, potentially resulting in metals with properties superior to those of traditional alloys. This Special Issue calls for high-quality papers, reports, and review articles on all aspects of corrosion and high-temperature oxidation behavior of MPEA in harsh environments, including but not limited to areas such as polarization behavior, passivity, selective leaching, corrosion mechanisms, testing, and protection, stress corrosion cracking as well as oxidation kinetics, selective and pest oxidation, scale formation, and coatings.

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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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