

Special Issue

Liquid Metals, Alloys, Salts, Oxides, and Their Coexistence and Interaction with Solid Phases

Message from the Guest Editor

This Special Issue is devoted to the experimental and theoretical studies of the equilibrium-state structure and properties of inorganic liquids containing metallic elements and various physical and chemical processes involving the aforementioned substances. Methods of quantum mechanics, the theory of liquids, phenomenological thermodynamics, calorimetry, thermal analysis, atomic emission spectrometry, optical and scanning electron microscopy, X-ray spectroscopy, X-ray diffraction, X-ray fluorescence analysis, the determination of mechanical properties, gravimetric measurements of corrosion rates, and stationary and transient electrochemistry techniques are employed in the represented works. The results obtained are important for understanding the nature of liquids and solid-liquid transition phenomena as well as for developing different applications in metallurgy, nuclear industry, and the synthesis of new materials.

Guest Editor

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About the Journal

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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