Special Issue

Microstructure and Mechanical Properties of Metals Welding Joints

Message from the Guest Editors

Welding is one of the most commonly used joining techniques for various materials nowadays. Welding technology has undergone many improvements and innovations, such as in the examples of high-energy density processes or solid state welding processes and mixed metal diffusion and bonding using a couple of basic welding techniques. Compared to other joining techniques, such as bulky riveted/butt joints, the welding process requires less production time and also offers advantages such as not producing holes, which weaken the structure, in addition to lower production costs.

For a typical kind of metal material, the welding process, microstructure, and performance analysis of welded joints are conducted. At the same time, attention is paid to matching the geometric characteristics of the welded joint, the inhomogeneity of microstructure and mechanical properties, and the influence of welding process parameters on the microstructure and properties.

This Special Issue aims to collect original works dealing with new advances in the microstructural and mechanical characterization of welded joints through numerical simulations or experiments.

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Message from the Editor-in-Chief

Welcome to *Crystals*, the journal dedicated to the fascinating world of crystallographic research! Crystals are more than mere decorative elements; they hold the key to understanding the fundamental structure of matter. Our mission is to explore the crucial significance of this research across various fields. From medicine to technology, chemistry to geology, crystals play a vital role. Their structure provides insights into new advanced materials, innovative drugs, and groundbreaking technologies. Through *Crystals*, we delve into the microscopic world to discover solutions that will shape the future. Join us on a journey through the *Crystals*, where science merges with beauty and innovation.

Editor-in-Chief

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