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Advances on Welded Joints: Microstructure and Mechanical Properties

Guest Editors:

Dr. Vincenzo Moramarco

Dipartimento di Meccanica,
Matematica e Management,
Politecnico di Bari, Bari, Italy

Dr. Gilda Renna

Department of Engineering for
Innovation, Università del
Salento, 73100 Lecce, Italy

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Message from the Guest Editors

Advances in welded joints continue to play a critical role in various industries. Researchers and engineers continue to innovate to further enhance the microstructure and mechanical properties of welded joints in order to meet the evolving demands of modern applications.

Additionally, in recent decades, new welding technologies (e.g., FSW, hybrid techniques, etc.) that allow dissimilar or “non-weldable” materials to be joined have been developed. These innovative joints require in-depth study in order to evaluate their reliability and durability under real service conditions.

The aim of this Special Issue is to collect original contributions focusing on the microstructural assessment and mechanical properties characterization of welded joints, the procedure used to design them, and the development of new materials that expand the applicative potential of welding. Topics of interest include, but are not limited to, the following: the characterization of welded joints, fatigue performance, crack propagation, experimental investigations, simulations and analyses of welded joints, the effect of residual stresses, non-destructive testing (NDT) and in situ monitoring.



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Special Issue



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Editor-in-Chief

Prof. Dr. Maryam Tabrizian

1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada

2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

Message from the Editor-in-Chief

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Contact Us

Materials Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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