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Sustainable Approaches in Metal Manufacturing and Developing Durable Metallic Alloys

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Message from the Guest Editor

Dear Colleagues,

This Special Issue aims to gather cutting-edge research that addresses these critical challenges by exploring innovative methods and materials that contribute to sustainability in the metal industry.

The focus of this Special Issue includes, but is not limited to, the following areas:

Sustainable Manufacturing Processes: Investigating eco-friendly manufacturing techniques that minimize waste, reduce energy consumption, and lower greenhouse gas emissions.

Development of Durable Alloys: Creating and optimizing metallic alloys that offer superior durability, corrosion resistance, and mechanical properties, thereby extending the lifecycle of products.

Recycling and Reuse: Exploring strategies for the recycling and reuse of metals and alloys to promote a circular economy.

Advanced Characterization Techniques: Utilizing state-of-the-art characterization methods to understand the microstructural and compositional factors that influence the sustainability and performance of metallic materials.

Life Cycle Assessment (LCA): Conducting comprehensive LCAs to evaluate the environmental impact of metal manufacturing processes and alloy development.



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Special Issue



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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.

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