

Special Issue

Modeling, Characterization and Controlling of Residual Stress in Metal Components

Message from the Guest Editor

This Special Issue focuses on the modeling, characterization, and control of residual stress in the manufacturing process of metal materials and components. The purpose is to improve the control level of residual stress of metal components, achieve near zero residual stress control of metal components, and comprehensively improve product quality by attracting many experts and scholars to exchange ideas. Potential topics for this Special Issue on metal residual stress include but are not limited to the following aspects:

- Residual stress in metal plastic forming manufacturing;
- Residual stress of heat treatment;
- Residual stress in additive manufacturing;
- Residual stress in machining;
- Component deformation and control;
- Residual stress and service performance.

Guest Editor

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About the Journal

Message from the Editor-in-Chief

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.

Editor-in-Chief

Prof. Dr. Yong Zhang

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