Special Issue

Advanced Metal Forming Processes and Plastic Deformation-Based Joining Processes

Message from the Guest Editor

This Special Issue aims to present recent developments, fundamental research, and application-driven studies related to advanced metal forming and joining techniques that are based on plastic deformation. In this Special Issue, original research articles and comprehensive review papers are welcome. Topics of interest include, but are not limited to, the following:

- Bulk and sheet metal forming;
- Mechanical joining by plastic deformation;
- Metallurgical joining by plastic deformation;
- Joining and forming at micro/meso-scales;
- The joining and forming of additively manufactured components;
- Material characterization and modeling;
- Constitutive modeling;
- Finite element simulation of forming and joining processes;
- Process design, optimization, and control;
- Fatigue and failure mechanisms in formed and joined structures;
- The use of AI in forming and joining;
- The applications of these techniques in automotive, aerospace, electronics, and energy systems.

We look forward to receiving your valuable contributions to this Special Issue and to advancing the state of the art in this dynamic and impactful research area.

Guest Editor

Dr. Mohammad Mehdi Kasaei

Institute of Science and Innovation in Mechanical and Industrial Engineering (INEGI), 4200-465 Porto, Portugal

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Materials
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
materials@mdpi.com

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Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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

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