



an Open Access Journal by MDPI

Design and Behavior of Innovative Tools and Devices for Manufacturing Sheet Metal

Guest Editor:

Dr. Tomaž Pepelnjak

Associate Professor, Faculty of Mechanical Engineering,
University of Ljubljana, Aškerčeva
6, SI-1000 Ljubljana, Slovenia

Deadline for manuscript
submissions:

closed (20 October 2023)

Message from the Guest Editor

Use of sensors and actuators strongly influence the design of contemporary forming tools and their behavior during the forming processes. Furthermore, the partial heating or cooling of tool or some tool segments is implemented into the tools in order to improve local workpiece formability. This enables increase of part complexity and its production accuracy. The presentation of innovative concepts and design for all types of forming tools and devices for sheet materials with their sensors, actuators and control systems is highly welcome in this special issue.

In the Special Issue, recent advances on the study of innovative tools and devices for forming of sheet materials are highlighted and discussed, including but not limited to the following topics:

- Forming of sheet metal and non-metal plates and foils
- Innovative forming tooling concepts
- Smart tooling
- Adaptable forming devices and tools
- Sensors and actuators in forming tools
- Diagnostic in forming processes
- Computer vision and process control in forming processes
- Temperature-controlled forming tools
- Cryogenic-assisted forming processes
- Innovative tools and devices for incremental forming



mdpi.com/si/112596

Special Issue



an Open Access Journal by MDPI

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

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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Ei Compendex, CaPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

Journal Rank: JCR - Q1 (Metallurgy and Metallurgical Engineering) / CiteScore - Q2 (*Condensed Matter Physics*)

Contact Us

Materials Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/materials
materials@mdpi.com
[X@Materials_Mdpi](https://twitter.com/Materials_Mdpi)