



an Open Access Journal by MDPI

Advance in Friction Stir Processed Materials

Guest Editors:

Dr. Józef Iwaszko

Department of Technology and Automation, Faculty of Mechanical Engineering and Computer Science, Czestochowa University of Technology, 19 Armii Krajowej St., 42-200 Czestochowa, Poland

Prof. Dr. Jerzy Winczek

Faculty of Mechanical Engineering and Computer Science, Department of Technology and Automation, Czestochowa University of Technology, 19 Armii Krajowej St., 42-200 Czestochowa, Poland

Deadline for manuscript submissions:

closed (28 February 2022)

Message from the Guest Editors

Friction stir processing (FSP) is a promising new technique for the grain refinement of many engineering materials. This technology is derived from FSW technology, but differs because it is not used to join materials, but to shape the microstructure and properties of the surface layer. The microstructure evolution in friction stir processed materials is the result of the processing parameters, shape and dimensions of the tool, as well as, for example, the method of sample cooling. FSP technology has numerous potential applications and now competes with other grain refinement techniques. FSP is used, among others, to modify the surface layer of metals and their alloys, polymers, composites, plasma sprayed coatings, and so on.

Bearing in mind the dynamic development of FSP technology, numerous methodological innovations and the growing importance of this method in shaping the microstructure and properties of engineering materials, we cordially invite everyone to present their own results of research on the production, characteristics and properties of friction stir processed materials or to present the results indicating new trends and development directions of FSP technology.





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 - Q2 (Metallurgy and Metallurgical Engineering) / CiteScore - Q1 (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)