Machining—Recent Advances, Applications and Challenges

Message from the Guest Editors

- High performance operations for difficult-to-cut alloys, wrought and cast materials, light alloys, ceramics.
- Cutting tools, grades, substrates and coatings.
- New applications of machining in high-added value components, for aeronautics, automotive, windmill, energy, and other key sectors.
- Heat in metal cutting: Heat sources, accuracy in machining, prediction and measurements of temperatures in the cutting zone.
- Advanced cooling in machining: Minimum quantity of lubricant, dry or cryogenics.
- Modelling, focused on the reduction of risks, the process outcome, and to maintain surface integrity.
- Vibration problems in machines: Active and passive/predictive methods, sources, diagnosis and avoidance.
- Influence of machining in new concepts of machine-tool, and machine static and dynamic behaviors.
- Machinability of new composites, brittle and emerging materials.
- Sensor-assisted machining: Sensors and system architecture, intelligent/smart tools.
- Assisted machining processes by high-pressure, laser, US and others.
- Micromachining, challenges and applications.
- Introduction of new analytics and decision making into machining programming.

Deadline for manuscript submissions:
closed (31 May 2019)
Editor-in-Chief

Prof. Dr. Maryam Tabrizian
Professor of Biomedical Engineering, Professor of Bioengineering, Professor of Experimental Surgery, Associate Dean—Research and Graduate Studies, Department of Biomedical Engineering, Faculty of Medicine/Faculty of Dentistry, Duff Medical Science Building, Room 313, 3775 University Street, Montreal, QC, H3A 2B4, Canada

Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers fourteen comprehensive topics: Biomaterials; Energy Materials; Composites; Structure Analysis; Porous Materials; Manufacturing Processes; Advanced Nanomaterials; Smart Materials; Thin Films; Catalytic Materials; Carbon Materials; Materials Chemistry; Materials Physics; Optics and Photonics; Corrosion; Building Materials. The distinguished and dedicated editorial board and our strict peer-review process ensure the highest degree of scientific rigor and review of all published articles.

Materials provides an 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 by the Science Citation Index Expanded (Web of Science), Ei Compendex and other databases. Citations available in PubMed, full-text archived in PubMed Central.

CiteScore (2018 Scopus data): 3.26, which equals rank 97/439 (Q1) in 'General Materials Science'.

Contact Us

Materials
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland
Tel: +41 61 683 77 34
Fax: +41 61 302 89 18
www.mdpi.com
materials@mdpi.com
@Materials_Mdpi