



## Polymers and Injection Molding Simulation

Guest Editor:

**Prof. Dr. Mónica S. A. Oliveira**

Centre of Mechanical Technology  
and Automation, Department of  
Mechanical Engineering,  
University of Aveiro, Aveiro,  
Portugal

Deadline for manuscript  
submissions:

**closed (30 September 2021)**

### Message from the Guest Editor

The molds and plastics industry, like so many other industrial sectors, has faced enormous challenges in a bid to increase competitiveness through the search for a cleaner, less energy-intensive production that makes better use of material resources.

Numerical simulation of injection molding is a powerful tool to be used in the early stages of the process to optimize the design of parts for manufacture, validate and improve the injection mold tool design, trouble shoot molding problems, and reduce cost and lead time to market. Moreover, proper attention must be paid to the different control strategies that may be envisaged during mold production. Highly complex parts are continuously being sought, and with the rapid advance of additive technologies, the use of strategies such as conformal cooling to enhance heat dissipation and improve overall cycle time are also being assessed. It is, therefore, of utmost importance to establish new trends in what concerns mold diagnosis for part quality assessment.

It is my pleasure to invite you to submit a manuscript to this Special Issue. Full papers, communications, and reviews are all welcome.





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 & Metallurgical Engineering*) / CiteScore - Q2 (*Condensed Matter Physics*)

## Contact Us

Materials Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/materials](http://mdpi.com/journal/materials)  
[materials@mdpi.com](mailto:materials@mdpi.com)  
[X@Materials\\_Mdpi](https://twitter.com/Materials_Mdpi)