Special Issue

Atomization of Metallic Melts

Message from the Guest Editor

Dear Collegues, The atomization of metallic melts is a process that allows the generation of a defined droplet spectrum in the form of a spray. With the knowledge of the processes taking place in the spray, the droplets can be solidified to a metal powder. The atomization conditions and the associated droplet sizes, velocities, trajectories, and concentrations determine the processes taking place in the spray, such as cooling, solidification, and formation of the particle morphology. The history of the droplets determines properties such as their microstructure or flowability, which are important for subsequent processes, such as additive manufacturing or powder metallurgical routes. The focus of this Special Issue is on the relationship of atomization conditions and resulting material properties. In this context, fundamental investigations on single droplets may be as suitable as investigation on gas atomization processes. Models for the application of detailed findings from single droplets to complex sprays allow the determination of new process windows for atomization. It is my pleasure to invite you to submit your manuscript for this Special Issue.

Guest Editor

Dr. Nils Ellendt

Particle and Process Engineering, Faculty of Production Engineering, University of Bremen, Bremen, Germany

Deadline for manuscript submissions

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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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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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