



materials



an Open Access Journal by MDPI

Fluidization and Flow Properties of Fine Cohesive Powders

Guest Editor:

Dr. Paola Ammendola

Institute for Research on
Combustion (IRC)—CNR, 80125
Naples, Italy

Deadline for manuscript
submissions:

closed (30 September 2021)

Message from the Guest Editor

The Special Issue will address experimental/theoretical research and latest progress in the science and technology of fluidization and flow behavior of fine/ultrafine particles. The interest in using this type of granular materials raises many questions around how they can be handled and processed in large-scale applications. In this framework, fluidization is one of the most effective available techniques in ensuring continuous powder handling and dispersion characterized by good heat and mass transfer coefficients. However, fluidization of fine powders is very challenging due to their intrinsic cohesive nature deriving from strong interparticle forces. In particular, interparticle forces are closely related to powder flowability, a complex of different characteristics generally adopted for measuring the ability of a powder to flow under specified conditions.

Articles dealing with fundamental aspects of powder flow behavior, also highlighting the complex link between local particles interactions and their fluidization behavior, and with methods to predict and improve powder flowability are very welcome.



mdpi.com/si/33243

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 - 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

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