



## Challenges of Applying Discrete Element Method (DEM) to Industrial Applications

Guest Editors:

**Prof. Dr. Farhad Ein-Mozaffari**

Department of Chemical  
Engineering, Toronto  
Metropolitan University, 350  
Victoria Street, Toronto, ON M5B  
2K3, Canada

**Dr. Mohammadreza Ebrahimi**

Integrated Materials Engineering  
& Technology, Bristol-Myers  
Squibb, Summit, NJ 07901, USA

**Dr. Subhash Thakur**

Engineering and Material  
Science, Vertex Pharmaceuticals,  
Boston, MA 02210, USA

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### Message from the Guest Editors

Dear Colleagues,

Granular materials are widely encountered in various industries such as pharmaceutical, chemical, mining and agriculture. The efficient handling of granular materials is an ongoing challenge due to the very complex nature of particles/powders. Due to the advances in computational facilities in the last few years, the use of the DEM approach has rapidly grown across a range of industries that use granular materials and powders. The popularity of this method stems from its ability to reveal a comprehensive, particle level of information, which is hard or even impossible to obtain through experiments.

This Special Issue aims to cover current research on the following topics:

- Novel developments in modelling complex interactions at a particle level such as cohesion;
- Innovative approaches regarding DEM model calibration for static and dynamic systems;
- The application of the coarse graining approach and GPU to reduce DEM simulation time;
- Novel validation techniques;
- Usefulness of DEM to provide answers to fundamental questions and innovative solutions to industrial problems.





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## Editor-in-Chief

### **Prof. Dr. Giancarlo Cravotto**

Department of Drug Science and  
Technology, University of Turin,  
Via P. Giuria 9, 10125 Turin, Italy

## Message from the Editor-in-Chief

*Processes* (ISSN 2227-9717) provides an advanced forum for process/system-related research in chemistry, biology, material, energy, environment, food, pharmaceutical, manufacturing and allied engineering fields. The journal publishes regular research papers, communications, letters, short notes and reviews. Our aim is to encourage researchers to publish their experimental, theoretical and computational results in as much detail as necessary. There is no restriction on paper length or number of figures and tables.

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

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