

Special Issue

Recent Advances in Fluidized Bed Hydrodynamics and Transport Phenomena

Message from the Guest Editors

This Special Issue focuses on fluidized bed hydrodynamics and transport phenomena and aims to attract top-quality studies addressing recent advances in the fundamental and applied aspects of fluidized beds and fluidized systems. A non-exhaustive list of topics follows:

- Green energy technologies (CLC, CCSU, hydrogen, biofuels, solar)
- Solids mixing and separation in gas, liquid, and three phase systems
- Cohesive powder fluidization: characterization methods, assisted fluidization
- Complex particle production: synthesis, agglomeration, granulation, coating
- Particle attrition and fragmentation (jets, cyclones, impacts)
- Advanced computational techniques (TFM, DEM-CFD, MP-PIC, coarse-graining, AI)
- Dynamics, scale-up, and optimization
- Innovative solutions (micro-scale, staged) and applications
- Ancillary equipment: cyclones, non-mechanical valves

Guest Editors

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Deadline for manuscript submissions

closed (31 October 2020)



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Editor-in-Chief

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