

M.Sc. Zhaochen Jiang
Institute of Particle Technology/ Solids Processing Group
Friedrich-Alexander University Erlangen-Nuremberg
Cauerstr. 4, 91058 Erlangen, Germany

Publication list (2015.04 - 2018.04)

Journal Papers

1. **Z. Jiang**, T. Hagemeyer, A. Bück, E. Tsotsas, *Experimental measurements of particle collision dynamics in a pseudo-2D gas-solid fluidized bed*, Chemical Engineering Science 167 (2017), 297-316
2. **Z. Jiang**, A. Bück, E. Tsotsas, *CFD-DEM study of residence time, droplet deposition, and collision velocity for a binary particle mixture in a Wurster fluidized bed coater*, Drying Technology, 36 (2018), 638-650
3. **Z. Jiang**, T. Hagemeyer, A. Bück, E. Tsotsas, *Color-PTV measurement and CFD-DEM simulation of the dynamics of poly-disperse particle systems in a pseudo-2D fluidized bed*, Chemical Engineering Science 179 (2018), 115-132

under review

in preparation

1. **Z. Jiang**, C. Rieck, D. Jia, A. Bück, E. Tsotsas, *Measurement of the coefficient of restitution for irregularly shaped Geldart group A particles impacting on horizontal substrates*
2. **Z. Jiang**, A. Bück, E. Tsotsas, *Particle collision dynamics: Comparison of CFD-DEM simulations with particle tracking velocimetry measurements*
3. **Z. Jiang**, A. Bück, E. Tsotsas, *Effect of cohesive forces on residence time distribution in a Wurster coater: A CFD-DEM study*

Conference Proceedings

1. T. Hagemeyer, **Z. Jiang**, A. Bück, E. Tsotsas: *Discrete analysis of particle collision behaviour in fluidized beds*, In: 7th International Granulation Workshop, Sheffield (UK), July, 2015
2. **Z. Jiang**, T. Hagemeyer, Y. Yang, A. Bück, E. Tsotsas *Particle dynamics and mixing behavior in a polydisperse gas-solid fluidized bed by color-PTV measurement*, In: PARTEC, Nürnberg (DE), April, 2016
3. T. Hagemeyer, K. Zähringer, **Z. Jiang**, D. Thévenin: *Influence of wetting behavior on macroscopic film flow pattern*, In: 18th International Symposium on the Application of Laser and Imaging Techniques to Fluid Mechanics, Lisbon (PT), ISBN 978-989-98777-8-8, Paper 2.6.4, 1-17, 2016
4. **Z. Jiang**, T. Hagemeyer, A. Bück, E. Tsotsas: *CFD-DEM study of residence time and collision velocity in a binary Wurster fluidized bed*, In: The 20th International Drying Symposium, Gifu (JP), August, 2016
5. **Z. Jiang**, C. Rieck, A. Bück, E. Tsotsas: *Estimation of coefficient of restitution of irregularly shaped particles on horizontal substrates*, In: 8th International Granulation Workshop, Sheffield (UK), June, 2017

6. **Z. Jiang**, C. Rieck, A. Bück, E. Tsotsas: *Modeling of particle behavior in a Wurster fluidized bed: Coupling CFD-DEM with Monte Carlo*, In: The 21th International Drying Symposium, Valencia (ES), September, 2018

Oral and Poster Presentations

1. T. Hagemeyer, **Z. Jiang**, A. Bück, E. Tsotsas: *Discrete analysis of particle collision behaviour in fluidized beds*, In: 7th International Granulation Workshop, Sheffield (UK), July, 2015
2. **Z. Jiang**, A. Bück, E. Tsotsas: *CFD-DEM simulation of particle collision dynamics in a poly-disperse gas-solid fluidized bed*, In: Jahrestreffen der Fachgruppen Agglomerations- und Schüttguttechnik, Mehrphasenströmungen und Computational Fluid Dynamics, Bingen (DE), March, 2016
3. **Z. Jiang**, T. Hagemeyer, Y. Yang, A. Bück, E. Tsotsas: *Particle dynamics and mixing behavior in a polydisperse gas-solid fluidized bed by color-PTV measurement*, In: PARTEC, Nürnberg (DE), April, 2016
4. **Z. Jiang**, T. Hagemeyer, A. Bück, E. Tsotsas : *Discrete analysis of particle collision behavior in a pseudo-2D fluidized bed*, In: PARTEC, Nürnberg (DE), April, 2016 (Poster)
5. T. Hagemeyer, K. Zähringer, **Z. Jiang**, D. Thévenin: *Influence of wetting behavior on macroscopic film flow pattern*, In: 18th International Symposium on the Application of Laser and Imaging Techniques to Fluid Mechanics, Lisbon (PT), July 4-7, 2016
6. **Z. Jiang**, T. Hagemeyer, A. Bück, E. Tsotsas: *CFD-DEM study of residence time and collision velocity in a binary Wurster fluidized bed*, In: The 20th International Drying Symposium, Gifu (JP), August, 2016
7. **Z. Jiang**, C. Rieck, A. Bück, E. Tsotsas: *Measurements of the coefficient of restitution of Group A particles on different horizontal substrates*, In: Jahrestreffen der Fachgruppen Agglomerations- und Schüttguttechnik, Grenzflächenbestimmte Systeme und Prozesse, Trocknungstechnik, Lebensmittelverfahrenstechnik und Wärme- und Stoffübertragung, Bruchsal (DE), February, 2017 (Poster)
8. **Z. Jiang**, C. Rieck, A. Bück, E. Tsotsas: *Estimation of coefficient of restitution of irregularly shaped particles on horizontal substrates*, In: 8th International Granulation Workshop, Sheffield (UK), June, 2017
9. **Z. Jiang**, A. Bück, E. Tsotsas: *Investigation of residence time and collision velocity in a Wurster fluidized bed using CFD-DEM simulations* , In: 5th International Conference on Particle-based Methods, Fundamentals and Applications, Hannover (DE), September, 2017
10. **Z. Jiang**, A. Bück, E. Tsotsas: *Influence of wetting conditions on residence time distributions in a Wurster coater: A CFD-DEM study*, In: Jahrestreffen der der ProcessNet-Fachgruppen MPH, WSUE, CFD, HTT, AuW, KRI, PMT, Bremen (DE), March, 2018 (Poster)
11. **Z. Jiang**, A. Bück, E. Tsotsas: *Verification of PTV methodology for evaluating particle-particle interactions by CFD-DEM data*, In: Jahrestreffen der der ProcessNet-Fachgruppen MPH, WSUE, CFD, HTT, AuW, KRI, PMT, Bremen (DE), March, 2018 (Poster)