

XPS related publications

1. T. Forgber, P. Toson, S. Madlmeir, H. Kureck, J. G. Khinast, D. Jajcevic, Extended validation and verification of XPS/AVL-Fire™, a computational CFD-DEM software platform, Powder Technology, Volume 361, 2020, Pages 880-893.
2. P. Toson, P. Doshi, M. Matica, E. Siegmann, D. Blackwood, As. Jain, J. Brandon, K. Lee, D. Wilsdon, J. Kimber, H. Verrier, J. Khinast, D. Jajcevic, Continuous mixing technology: Validation of a DEM model, International Journal of Pharmaceutics, Volume 608, 2021, 121065
3. E. Siegmann, S. Enzinger, P. Toson, P. Doshi, J. Khinast, D. Jajcevic, Massively speeding up DEM simulations of continuous processes using a DEM extrapolation, Powder Technology, Volume 390, September 2021, Pages 442-455
4. P. Boehling, G. Toschkoff, K. Knop, P. Kleinebudde, S. Just, A. Funke, H. Rehbaum, J.G. Khinast, Analysis of large-scale tablet coating: Modeling, simulation and experiments, European Journal of Pharmaceutical Sciences, Volume 90, 2016, Pages 14-24.
5. H. Kureck, N. Govender, E. Siegmann, P. Boehling, C. Radeke, J. G. Khinast, Industrial scale simulations of tablet coating using GPU based DEM: A validation study, Chemical Engineering Science, Volume 202, 2019, Pages 462-480.
6. P. Boehling, G. Toschkoff, R. Dreu, S. Just, P. Kleinebudde, A. Funke, H. Rehbaum, J.G. Khinast, Comparison of video analysis and simulations of a drum coating process, European Journal of Pharmaceutical Sciences, Volume 104, 2017, Pages 72-81.
7. E. Siegmann, T. Forgber, P. Toson, M. C. Martinetz, H. Kureck, T. Brinz, S. Manz, Torsten Grass, J. G. Khinast, Powder flow and mixing in different tablet press feed frames, Advanced Powder Technology, 2019.
8. P. Boehling, G. Toschkoff, S. Just, K. Knop, P. Kleinebudde, A. Funke, H. Rehbaum, P. Rajniak, J.G. Khinast, Simulation of a tablet coating process at different scales using DEM, European Journal of Pharmaceutical Sciences, Volume 93, 2016, Pages 74-83,
9. P. Böhling, J. G. Khinast, D. Jajcevic, C. Davies, A. Carmody, P. Doshi, M. T. Am Ende, A. Sarkar, Computational Fluid Dynamics-Discrete Element Method Modeling of an Industrial-Scale Wurster Coater, Journal of Pharmaceutical Sciences, Volume 108, Issue 1, 2019, Pages 538-550.
10. M. Ebrahimi, E. Siegmann, D. Prieling, B. J. Glasser, J. G. Khinast, An investigation of the hydrodynamic similarity of single-spout fluidized beds using CFD-DEM simulations, Advanced Powder Technology, Volume 28, Issue 10, 2017, Pages 2465-2481.
11. S. Adam, D. Suzzi, C. Radeke, J. G. Khinast, An integrated Quality by Design (QbD) approach towards design space definition of a blending unit operation by Discrete Element Method (DEM) simulation, European Journal of Pharmaceutical Sciences, Volume 42, Issues 1–2, 2011, Pages 106-115,
12. M. O. Besenhard, S. Fathollahi, E. Siegmann, E. Slama, E. Faulhammer, J.G. Khinast, Micro-feeding and dosing of powders via a small-scale powder pump, International Journal of Pharmaceutics, Volume 519, Issues 1–2, 2017, Pages 314-322.
13. P. Toson, E. Siegmann, M. Trogrlic, H. Kureck, J. G. Khinast, D. Jajcevic, P. Doshi, D. Blackwood, A. Bonnassieux, P. D. Daugherty, M. T. am Ende, Detailed modeling and process design of an advanced continuous powder Mixer, International Journal of Pharmaceutics, Volume 552, Issues 1–2, 2018, Pages 288-300.
14. M. Börner, M. Michaelis, E. Siegmann, C. Radeke, U. Schmidt, Impact of impeller design on high-shear wet granulation, Powder Technology, Volume 295, 2016, Pages 261-271.

15. Siegmann, E., Jajcevic, D., Radeke, C., Strube, D., Friedrich, K. and Khinast, J.G. (2017), Efficient Discrete Element Method Simulation Strategy for Analyzing Large-Scale Agitated Powder Mixers. *Chemie Ingenieur Technik*, 89: 995-1005. doi:10.1002/cite.201700004
16. D. Jajcevic, E. Siegmann, C. Radeke, J. G. Khinast, Large-scale CFD–DEM simulations of fluidized granular systems, *Chemical Engineering Science*, Volume 98, 2013, Pages 298-310.
17. M. Trogrlic, S. Madlmeir, T. Forgber, D. Jajcevic, Numerical and experimental validation of a detailed non-isothermal CFD-DEM model of a pilot-scale Wurster coater, 2021 (Submitted)
18. S. Madlmeir, T. Forgber, M. Trogrlic, D. Jajcevic, J.G. Khinast, Quantification of Coating Yield via Detailed Simulations of Heat and Mass Transfer in a Wurster Fluidized Bed Coater, *Chemical Engineering Science*)
19. S. Madlmeir, T. Forgber, M. Trogrlic, D. Jajcevic, J.G. Khinast, Advanced Ray Tracing in Coarse-Grained Discrete Element Methods, 2021 (Submitted: Advanced Powder Technology)