List of Publications (Dr. Marco Gleiß)

Nr.	Name/Title/Journal	Year
1.	HK. Baust, S. Hammerich, H. König, H. Nirschl, **M. Gleiß**: *A Resolved Simulation Approach to Investigate the Separation Behavior in Solid Bowl Centrifuges Using Material Functions. Separation, 9(9), 248. DOI:* https://doi.org/10.3390/separations9090248 (Open Access)	2022
2.	M. Winkler, R. Rhein, H. Nirschl, **M. Gleiss**: *Real-Time Modeling of Volume and Form Dependent Nanoparticle Fractionation in Tubular Centrifuges*, Nanomaterials, 12(18), 3161 DOI: https://doi.org/10.3390/nano12183161 (Open Access)	2022
3.	B. Radel, **M. Gleiß**, H. Nirschl: *Crystal Breakage Due to Combined Normal and Shear Loading*, Crystals, 12(5), 644. DOI: https://doi.org/10.3390/cryst12050644 (Open Access)	2022
4.	B. Fränkle, P. Morsch, T. Sok, **M. Gleiß**, H. Nirschl: *Tailings Filtration Using Recessed Plate Filter Presses: Improving Filter Media Selection by Replacing the Abrasive Wear of Filter Media Caused by Falling Filter Cake after Cake Detachment,* Mining, 2(2),425-437 DOI: https://doi.org/10.3390/mining2020022 (Open Access)	2022
5.	B. Fränkle, P. Morsch, C. Kessler, T Sok, **M. Gleiss**, H. Nirschl: *Iron Ore Tailings Dewatering: Measurement of Adhesion and Cohesion for Filter Press Operation*, Sustainability,14(6), 3424. DOI: https://doi.org/10.3390/su14063424 (Open Access)	2022
6.	M. Betz, H. Nirschl, **M. Gleiss**: *Development of Prediction Models for Pressure Loss and Classification Efficiency in Classifiers, Processes, 10(4), 627. DOI:* https://doi.org/10.3390/pr10040627 (Open Access)	2022
7.	M. Betz, H. Nirschl, **M. Gleiss**: *Development of a New Solver to Model the Fish-Hook Effect in a Centrifugal Classifier*, Minerals, 11(7), 663. DOI: https://doi.org/10.3390/min11070663 (Open Access)	2021
8.	M. Betz, **M. Gleiss**, H. Nirschl: *Effects of Flow Baffle Profile, Pressure Drop and Classification Performance in Classifiers, Processes*, Processes, 9(7), 1213 DOI: https://doi.org/10.3390/pr9071213 (Open Access)	2021
9.	T. Dobler, B. Radel, **M. Gleiss**, H. Nirschl: *Quasi-Continuous Production and Separation of Lysozyme Crystals on an Integraded Laboratory Plant,* Crystals, 11(6),713 DOI: https://doi.org/10.3390/cryst11060713 (Open Access)	2021
10.	P. Menesklou, T. Sinn, H. Nirschl, **M. Gleiss:** *Grey Box Modelling of Decanter Centrifuges by Coupling a Numerical Process Model with a Neural Network,* Minerals, 11(7), 755 DOI: https://doi.org/10.3390/min11070755 (Open Access)	2021
11.	M. Winkler, **M. Gleiss,** H. Nirschl**:** *Soft Sensor Development for Real-Time Process Monitoring of Multidimensional Fractionation in Tubular Centrifuges*, Nanomaterials. DOI: https://doi.org/10.3390/nano11051114 (Open Access)	2021
12.	V. Bächle, P. Morsch, **M. Gleiß**, H. Nirschl: *Influence of the Precoat Layer on the Filtration Properties and Regeneration Quality of Backwashing Filters*. Eng, 2(2), 181-196. DOI: https://doi.org/10.3390/eng2020012 (Open Access)	2021
13.	V. Bächle, P. Morsch, B. Fränkle, **M. Gleiß**, H. Nirschl: *Interaction of Particles and Filter Fabric in Ultrafine Filtration*, Eng. DOI: https://doi.org/10.3390/eng2020009 (Open Access)	2021
14.	T. Dobler, S. Bucheiser, **M. Gleiß**, H. Nirschl: *Development and Commissioning of a Small-Scale, Modular and Integrated Plant for Quasi-Continuous Production of Crystalline Particles*, Processes DOI: https://doi.org/10.3390/pr9040663 (Open Access)	2021
15.	P. Menesklou, T. Sinn, H. Nirschl, **M. Gleiss**: *Scale-up of Decanter Centrifuges for the Particle Separation and Mechanical Dewatering in the Minerals Processing Industry by Means of a Numerical Process Model*, Minerals. DOI: https://doi.org/10.3390/min11020229 (Open Access)	2021
16.	A. Wolf, A. Flegler, J. Prieschl, T. Stübinger, W. Witt, F. Seiser, T. Vinnay, T. Sinn, **M. Gleiß**, H. Nirschl, K. Mandel: *Centrifugation based separation of lithium iron phosphate (LFP) and carbon black for lithium-ion battery recycling*, Chemical Engineering and Processing - Process Intensification. DOI: https://doi.org/10.1016/j.cep.2021.108310	2021
17.	T. Sinn, A. Felgler, A. Wolf, T. Stübinger, W. Witt, H. Nirsch, **M. Gleiß**: *Investigation of Centrifugal Fractionation with Time-Dependent Process Parameters as a New Approach Contributing to the Direct Recycling of Lithium-Ion Battery Components*, Metals. DOI: https://doi.org/10.3390/met10121617 (Open Access)	2020
18.	P. Menesklou, H. Nirschl, **M. Gleiss**: *Dewatering of finely dispersed calcium carbonate-water slurries in decanter centrifuges: About modelling of a dynamic simulation tool,* Separation and Purification Technology, Volume 251.DOI: https://doi.org/10.1016/j.seppur.2020.117287	2020

19.	S. Hammerich, A. D. Stickland, B. Radel, **M. Gleiss**, H. Nirschl: *Modified shear cell for characterization of the rheological behavior of particlulate networks under compression,* Particuology, Volume 51, Pages 1-9. DOI: https://doi.org/10.1016/j.partic.2019.10.005	2020
20.	M. Winkler, H. Sonner, **M. Gleiss**, H. Nirschl: *Fractionation of ultrafine particles: Evaluation of separation efficiency by UV-vis spectroscopy,* Chemical Engineering Science, Volume 213. DOI: https://doi.org/10.1016/j.ces.2019.115374	2020
21.	M. Kespe, S. Cernak, **M. Gleiß**, S. Hammerich, H. Nirschl: *Three-dimensional simulation of transport processes within blended electrodes on the particle scale*, *International Journal of Energy Research, 43, 13, Pages 6762-6778. DOI: https://doi.org/10.1002/er.4616*	2019
22.	S. Hammerich, **M. Gleiss**, H. Nirschl: *Modeling and Simulation of Solid-Bowl Centrifuges as an Aspect of the Advancing Digitization in Solid Liquid Separation*, ChemBioEng Reviews 6, No. 4, 1-12. DOI: https://doi.org/10.1002/cite.201800098	2019
23.	S. Hammerich, **M. Gleiss**, A.D. Stickland, H. Nirschl: *A computatioanlly-efficient method for modelling the transient consolidation behavior of saturated compressive particulate networks,* Separation and Purification Technology, Volume 220, Pages 222-230. DOI: https://doi.org/10.1016/j.seppur.2019.03.060	2019
24.	S. Hammerich, **M. Gleiß**, H. Nirschl: *Modellierung und Simulation von Vollmantelzentrifugen als ein Aspekt der voranschreitenden Digitalisierung in der Fest/Flüssig Trennung,* Chemie Ingenieur Technik, Volume 91, Issue 3, Special Issue: Digitalisierung in Forschung und Entwicklung, Pages 215-227.	2019
25.	**M. Gleiß**, H. Nirschl: *Dynamic process simulation: A prediction tool for the mechanical liquid separation in solid bowl and decanter centrifuges.* F&S Global Guide of the Filtration and Separation Industry 2018-2020, Pages 222-231.	2018
26.	**M. Gleiß**, H. Nirschl: *Dynamische Prozesssimulation: Ein Vohersagewerkzeug der mechanischen Flüssigkeitsabtrennung in Vollmantel- und Dekantierzentrifugen,* F&S Global Guide of the Filtration and Separation Industry 2018-2020, Pages 293-303.	2018
27.	S. Hammerich, **M. Gleiß**, M.Kespe, H.Nirschl: *An Efficient Numerical Approach for Transient Simulation of Multiphase Flow Behaviour in Centrifuges,* Chemical Engineering & Technology, Volume 41, Issue 1, Special Issue: FILTECH, Pages 44-50.DOI: https://doi.org/10.1002/ceat.201700104	2018
28.	**M. Gleiss**, S. Hammerich, M. Kespe, H. Nirschl: *Development of a Dynamic Process Model for the Mechanical Fluid Separation in Decanter Centrifuges,* Chemical Engineering & Technology, Volume 41, Issue 1, Special Issue: FILTECH, Pages 19-26.	2018
29.	M. Kespe, **M. Gleiß**, S. Hammerich, H. Nirschl: *Numerical optimization of the spatial conductivity distribution within cathode microstructures of lithium-ion batteries considering the cell performance,* International Journal of Energy Research, Volume 41, Issue 14, Pages 2282-2296. DOI:https://doi.org/10.1002/er.3794	2017
30.	**M. Gleiss**, S. Hammerich, M. Kespe, H.Nirschl: *Application of the Dynamic Flow sheet Simulation Concept to the Solid-Liquid Separation: Separation of Stabilized Slurries in Continuous Centrifuges,* Chemical Engineering Science, Volume 163, Pages 167-178. DOI: https://doi.org/10.1016/j.ces.2017.01.046	2017
31.	**M. Gleiss**, H. Nirschl: *Modeling separation process in decanter centrifuges by considering the sediment build-up,* Chemical Engineering & Technology, Volume 38, Issue 10, Pages 1873-882.	2015