

Journal articles and book contributions of apl. Prof. Heike Lorenz, 2020-2024

2024

Ponnudurai, A., Schulze, P., Seidel-Morgenstern, A., Lorenz, H.: Effect of feed concentration in solvent/anti-solvent precipitation fractionation of lignin: Impact on lignins structure-property correlations. *Sep. Pur. Technol.* 33 (2024) 126343 (doi:10.1016/j.seppur.2024.126343)

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Tan, Q., Hosseini, S.A., Seidel-Morgenstern, A., Thévenin, D. Lorenz, H.: Mandelic acid single-crystal growth: Experiments vs. numerical simulations. *Commun. Comput. Phys.* 33 (2023), pp.77–100 (doi:10.4208/cicp.OA-2022-0035)

Tenberg, V., Hokmabadi, M., Seidel-Morgenstern, A., Lorenz, H. and Sadeghi, M.: Investigation of the Antisolvent Effect on the Phase Behavior of Amino Acid Solid Solutions. *Ind. Eng. Res. Des.* 62 (2023), pp. 753–761 (doi:10.1021/acs.iecr.2c03122)

Ponnudurai, A., Schulze, P., Seidel-Morgenstern, A., Lorenz, H.: Fractionation and absolute molecular weight determination of organosolv lignin and its fractions: Analysis by a novel acetone-based SEC – MALS method. *ACS Sustainable Chem. Eng.* 11 (2023), pp. 766–776 (doi:10.1021/acssuschemeng.2c06309)

Alavia, W., Seidel-Morgenstern, A., Hermsdorf, D., Lorenz, H., Graber, T.: Real-time crystal growth monitoring of boric acid from sodium or lithium sulfate containing aqueous solutions by atomic force microscopy. *ACS Omega* 8 (2023), pp. 10822–10835 (doi:10.1021/acsomega.2c06953)

Ghaffari, S., Gutierrez, M. F., Seidel-Morgenstern, A., Lorenz, H. and Schulze, P.: Sodium hydroxide-based CO₂ direct air capture for soda ash production – Fundamentals for process engineering. *Ind. Eng. Chem. Res.* 62 (2023), pp. 7566–7579 (doi:10.1021/acs.iecr.3c00357)

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Gutierrez, M., Schulze, P., Seidel-Morgenstern, A., Lorenz, H.: Parametric study of the reactive absorption of CO₂ for soda ash production. *Comp. Aided Chem. Eng.* 52 (2023), pp. 2935-2940

Huskova, N., Gänsch, J., Mangold, M., Lorenz, H., & Seidel-Morgenstern, A. (2023). Improving results of a Continuous Fluidized Bed Process for the Separation of Enantiomers by applying mathematical optimization. *Comp. Aided Chem. Eng.* 52 (2023), pp. 1391-1396

- Kotelnikova, E. N, Isakov, A. I., Sadovnichii, R.V., Lorenz, H.: Solid phase relationships in systems of amino acids in connection with their participation in geological and technological processes. In: Marin, Y. (Ed.): XIII General Meeting of the Russian Mineralogical Society and the Fedorov Session (GMRMS 2021), Springer Proceedings in Earth and Environmental Sciences (SPEES), Cham (Switzerland), 2023, ISBN 978-3-031-23390-6 (eBook); https://doi.org/10.1007/978-3-031-23390-6_80, pp. 637–645
- Lorenz, H., Lewis, A. E., Temmel, E. (Eds): Recent Progress in Industrial Crystallization (Printed Edition of the Special Issue Published in *Crystals*), MDPI, Basel, 2023, ISBN 978-3-0365-7715-9 (PDF); <https://doi.org/10.3390/books978-3-0365-7715-9> (registering DOI)
- Tan, Q., Hosseini, S. A., Seidel-Morgenstern, A., Thévenin, D. Lorenz, H.: Thermal effects connected to crystallization dynamics: A lattice Boltzmann study. *Int. J. Multiphase Flow* 171 (2024) 104669 (doi:10.1016/j.ijmultiphaseflow.2023.104669)
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- Tan, Q., Hosseini, S.A., Seidel-Morgenstern, A., Thévenin, D., Lorenz, H.: Modeling ice crystal growth using the lattice Boltzmann method. *Phys. Fluids* 34 (2022) 013311 (doi:10.1063/5.0072542)
- Saikia, B., Seidel-Morgenstern, A., Lorenz, H.: Multicomponent Materials to Improve Solubility: Eutectics of Drug Aminoglutethimide. *Crystals* 12 (2022), 40 (doi:10.3390/cryst12010040)
- Wünsche, S., Seidel-Morgenstern, A., Lorenz, H.: Cocrystallization of curcuminoids with hydroxybenzenes pyrogallol and hydroxyquinol: Investigations of binary thermal phase behaviors. *Cryst. Growth Des.* 22 (2022), pp. 3303–3310 (doi:10.1021/acs.cgd.2c00123)
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Intaraboonrod, K., Harriehausen, I., Carneiro, T., Seidel-Morgenstern, A., Lorenz, H. & Flood, A.: Temperature cycling induced deracemization of DL-asparagine monohydrate with immobilized amino acid racemase. *Cryst. Growth Des.* 21 (2021) pp. 306–313

Temmel, E., Lorenz, H.: Advances in Industrial Crystallization (*Editorial*). *Crystals* 10 (2020), 997 (doi:10.3390/cryst10110997)

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Sadeghi, M., Tenberg, V., Münzberg, S., Lorenz, H., Seidel-Morgenstern, A.: Phase equilibria of L-Valine/L-Leucine solid solutions. *J. Mol. Liquids* 340 (2021) 117315

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- Cascella, F., Seidel-Morgenstern, A., Lorenz, H.: Exploiting ternary solubility phase diagrams for resolution of enantiomers: An instructive example. *Chem. Eng. Technol.* 43 (2020), pp. 329–336
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