

## Rolf S. Arvidson, complete publications list (as of 2025)

- [1] I. Lange, M. Toro, R.S. Arvidson, and A. Luttge, *The role of crystal heterogeneity in alkali feldspar dissolution kinetics*, *Geochim. Cosmochim. Acta* **309** 329–351 (2021).
- [2] A. Luttge, R.S. Arvidson, C. Fischer, and I. Kurganskaya, *Kinetic concepts for quantitative prediction of fluid-solid interactions*, *Chem. Geol.* (invited paper) **504** 216–235 (2019).
- [3] I. Bibi, R.S. Arvidson, C. Fischer, and A. Luttge, *Temporal evolution of calcite surface dissolution kinetics*, *Minerals* **8**(6), 256 (2018).
- [4] I. Kurganskaya, R. Arvidson, C. Fischer, S. Churakov, and A. Luttge, *Fundamental problems in mineral-fluid reaction kinetics modelling: System size, parameterization, complexity and scalability (ID letterhash 725)*, In *GeoBonn 2018 Conference*, Bonn, Germany (2018).
- [5] I. Kurganskaya, R.S. Arvidson, S. Churakov, and A. Luttge, *Formulating Kinetic Monte Carlo models of crystal dissolution and growth*, In *GeoBonn 2018 Conference*, Bonn, Germany (2018). (ID letterhash 726)
- [6] I. Kurganskaya, A. Luttge, C. Fischer, R. Arvidson, and S. Churakov, *A multi-scale approach to study mineral dissolution: Kinetic Monte Carlo models and experimental observations (invited talk)*, In *Proceedings, Computational Methods in Water Resour. (CMWR)*, June 3–7, Saint-Malo, France (2018).
- [7] E.T. Pedrosa, W. Neweshy, C. Fischer, R. Arvidson, and A. Lüttge, *The effect of orientation and location of calcite dissolution kinetics*, In *GeoBonn 2018 Conference* (2018).
- [8] R.S. Arvidson, H. Reid, I. Kurganskaya, and A. Luttge, *Defect Control of  $\text{Ca}_3\text{SiO}_5$  Dissolution in Early Cement Hydration Reactions*, In *Goldschmidt Abstracts* (The Goldschmidt 2017 conference, Paris, August 13–18, 2017) (2017).
- [9] I. Bibi, R.S. Arvidson, C. Fischer, and A. Lüttge, *Understanding Variation in Dolomite Dissolution Rate at Low pH*, In *Goldschmidt Abstracts* (The Goldschmidt 2017 conference, Paris, August 13–18, 2017) (2017).
- [10] L. Briese, R.S. Arvidson, and A. Luttge, *The effect of crystal size variation on the rate of dissolution – A kinetic Monte Carlo study*, *Geochim. Cosmochim. Acta* **212** 167–175 (2017).
- [11] P. Juillard, L. Nicoleau, R. Arvidson, and E. Gallucci, *Advances in dissolution understanding and their implications for cement hydration*, *RILEM Technical Letters* **2** 90–98 (2017).
- [12] I. Lange, C. Fischer, R.S. Arvidson, and A. Luttge, *Quantitative Analysis of Solid Solution Dissolution Kinetics*, In *Goldschmidt Abstracts* (The Goldschmidt 2017 conference, Paris, August 13–18, 2017) (2017).
- [13] A. Luttge, R.S. Arvidson, and C. Fischer, *Kinetic Concepts for Quantitative Prediction of Fluid-Solid Interactions*, In *Goldschmidt Abstracts* (The Goldschmidt 2017 conference, Paris, August 13–18, 2017) (2017).
- [14] F. Prusse, C. Fischer, R.S. Arvidson, and A. Luttge, *The Influence of Carbonate Alkalinity on Calcite Dissolution Kinetics: An Experimental Study*, In *Goldschmidt Abstracts* (The Goldschmidt 2017 conference, Paris, August 13–18, 2017) (2017).
- [15] Q. Wang, R.D. Rohlfs, H.Y. Arvidson R. S., X. Shen, and A. Lüttge, *Clinker Phase Composition Determination by Backscattered Electron Image Analysis and Rietveld Refinement*, In *Goldschmidt Abstracts* (The Goldschmidt 2017 conference, Paris, August 13–18, 2017) (2017).
- [16] I. Kurganskaya, C. Fischer, R.S. Arvidson, A. Luttge, and S. Churakov, *Monte Carlo approaches to study mineral-water interface structure and reactivity*, In *Programme, 15th International Symposium on Experimental Mineralogy, Petrology, and Geochemistry* (Zurich, 5–8 June 2016) (2016).
- [17] I. Kurganskaya, C. Fischer, R.S. Arvidson, A. Luttge, and S. Churakov, *A computational study of carbonate dissolution kinetics: How to deal with the system's complexity?*, In *Programme, 2nd European Mineralogical Conference* (Rimini, Italy, 2016) (2016).
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- [20] L. Briese, R.S. Arvidson, C. Fischer, and A. Luttge, *Ostwald Ripening as an Entrance to Coupled Kinetic Systems*, In *Goldschmidt Abstracts* (The Goldschmidt 2015 conference, Prague, August 16–21, 2015) (2015).
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- [23] A. Socaciu, R. Filipescu, R.S. Arvidson, C. Fischer, W. Bach, and A. Luttge, *Dissolution Kinetics of Albite Crystals and Glass: An Experimental Comparison*, In *Goldschmidt Abstracts* (The Goldschmidt 2015 conference, Prague, August 16–21, 2015) (2015).
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- [104] report: [author: Luttge, Andreas and Arvidson, Rolf S.] [institution: U.S. Geological Survey Mineral Resources External Research Program] [pages: 1–16] [pagetotal: 16] [subtitle: 06HQGR0175 report] [title: {Sulfide dissolution rates studied by vertical scanning interferometry: Comparison with and application to studies in laboratory and natural setting}] [type: Final Report] [url: <https://minerals.usgs.gov/mrerp/reports/Luttge-06HQGR0175.pdf>] [year: 2006]
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