

# Rolf S Arvidson

## List of Publications by Year in descending order

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33  
papers

2,939  
citations

331670

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395702

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all docs

34  
docs citations

34  
times ranked

3315  
citing authors

#	ARTICLE	IF	CITATIONS
1	Calcium Carbonate Formation and Dissolution. <i>Chemical Reviews</i> , 2007, 107, 342-381.	47.7	862
2	The dissolution kinetics of major sedimentary carbonate minerals. <i>Earth-Science Reviews</i> , 2002, 58, 51-84.	9.1	544
3	Variation in calcite dissolution rates:. <i>Geochimica Et Cosmochimica Acta</i> , 2003, 67, 1623-1634.	3.9	317
4	How predictable are dissolution rates of crystalline material?. <i>Geochimica Et Cosmochimica Acta</i> , 2012, 98, 177-185.	3.9	169
5	Mineral dissolution kinetics as a function of distance from equilibrium – New experimental results. <i>Chemical Geology</i> , 2010, 269, 79-88.	3.3	103
6	Modeling the Mutualistic Interactions between Tubeworms and Microbial Consortia. <i>PLoS Biology</i> , 2005, 3, e77.	5.6	102
7	Magnesium inhibition of calcite dissolution kinetics. <i>Geochimica Et Cosmochimica Acta</i> , 2006, 70, 583-594.	3.9	98
8	The sulfur biogeochemistry of chemosynthetic cold seep communities, gulf of Mexico, USA. <i>Marine Chemistry</i> , 2004, 87, 97-119.	2.3	75
9	Tentative kinetic model for dolomite precipitation rate and its application to dolomite distribution. <i>Aquatic Geochemistry</i> , 1997, 2, 273-298.	1.3	64
10	The effect of crystal size variation on the rate of dissolution – A kinetic Monte Carlo study. <i>Geochimica Et Cosmochimica Acta</i> , 2017, 212, 167-175.	3.9	53
11	Single-crystal plagioclase feldspar dissolution rates measured by vertical scanning interferometry. <i>American Mineralogist</i> , 2004, 89, 51-56.	1.9	49
12	Surface Area Measurement of Functionalized Single-Walled Carbon Nanotubes. <i>Journal of Physical Chemistry B</i> , 2006, 110, 24812-24815.	2.6	47
13	Kinetic inhibition of calcite (104) dissolution by aqueous manganese(II). <i>Journal of Crystal Growth</i> , 2007, 307, 116-125.	1.5	44
14	Reactions at Surfaces: A New Approach Integrating Interferometry and Kinetic Simulations. <i>Journal of the American Ceramic Society</i> , 2010, 93, 3519-3530.	3.8	43
15	Kinetic concepts for quantitative prediction of fluid-solid interactions. <i>Chemical Geology</i> , 2019, 504, 216-235.	3.3	42
16	Geologic history of seawater: A MAGic approach to carbon chemistry and ocean ventilation. <i>Chemical Geology</i> , 2013, 362, 287-304.	3.3	39
17	Fluorite dissolution at acidic pH: In situ AFM and ex situ VSI experiments and Monte Carlo simulations. <i>Geochimica Et Cosmochimica Acta</i> , 2010, 74, 4298-4311.	3.9	33
18	Does the stepwave model predict mica dissolution kinetics?. <i>Geochimica Et Cosmochimica Acta</i> , 2012, 97, 120-130.	3.9	32

#	ARTICLE	IF	CITATIONS
19	Temporal Evolution of Calcite Surface Dissolution Kinetics. <i>Minerals (Basel, Switzerland)</i> , 2018, 8, 256.	2.0	31
20	Temperature Dependence of Mineral Precipitation Rates Along the CaCO <sub>3</sub> –MgCO <sub>3</sub> Join. <i>Aquatic Geochemistry</i> , 2000, 6, 249-256.	1.3	28
21	Dolomite Controls on Phanerozoic Seawater Chemistry. <i>Aquatic Geochemistry</i> , 2011, 17, 735-747.	1.3	25
22	Phosphonate mediated surface reaction and reorganization: implications for the mechanism controlling cement hydration inhibition. <i>Chemical Communications</i> , 2005, , 2354.	4.1	18
23	The role of crystal heterogeneity in alkali feldspar dissolution kinetics. <i>Geochimica Et Cosmochimica Acta</i> , 2021, 309, 329-351.	3.9	17
24	Fundamental Controls of Dissolution Rate Spectra: Comparisons of Model and Experimental Results. <i>Procedia Earth and Planetary Science</i> , 2013, 7, 537-540.	0.6	16
25	Lateral Resolution Enhancement of Vertical Scanning Interferometry by Sub-Pixel Sampling. <i>Microscopy and Microanalysis</i> , 2014, 20, 90-98.	0.4	15
26	Pyritization of Iron in Sediments from the Continental Slope of the Northern Gulf of Mexico. <i>Aquatic Geochemistry</i> , 2002, 8, 3-13.	1.3	12
27	Land–sea carbon and nutrient fluxes and coastal ocean CO <sub>2</sub> exchange and acidification: Past, present, and future. <i>Applied Geochemistry</i> , 2011, 26, S298-S302.	3.0	12
28	Calcite Dissolution Kinetics. <i>Aquatic Geochemistry</i> , 2015, 21, 415-422.	1.3	12
29	Biological and Geochemical Forcings to Phanerozoic Change in Seawater, Atmosphere, and Carbonate Precipitate Composition. , 2007, , 377-403.		10
30	Tentative kinetic model for dolomite precipitation rate and its application to dolomite distribution. <i>Aquatic Geochemistry</i> , 1996, 2, 273-298.	1.3	9
31	The Sensitivity of the Phanerozoic Inorganic Carbon System to the Onset of Pelagic Sedimentation. <i>Aquatic Geochemistry</i> , 2014, 20, 343-362.	1.3	9
32	The control of Phanerozoic atmosphere and seawater composition by basalt–seawater exchange reactions. <i>Journal of Geochemical Exploration</i> , 2006, 88, 412-415.	3.2	5
33	Dolomites: A Volume in Honor of Dolomieu. <i>Eos</i> , 1996, 77, 135-135.	0.1	2