Patricia M Dove

List of Publications by Year
in descending order

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49	7,892	101384	223531
papers	citations	36 h-index	46 g-index

50	50	50	7523
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Metastable solubility and local structure of amorphous calcium carbonate (ACC). Geochimica Et Cosmochimica Acta, 2020, 289, 196-206.	1.6	27
2	Systematic dependence of kinetic and thermodynamic barriers to homogeneous silica nucleation on NaCl and amino acids. Journal of Materials Research, 2019, 34, 442-455.	1.2	13
3	A new method forin situstructural investigations of nano-sized amorphous and crystalline materials using mixed-flow reactors. Acta Crystallographica Section A: Foundations and Advances, 2019, 75, 758-765.	0.0	21
4	Nucleation Pathways in Electrolyte Solutions. , 2017, , 1-24.		14
5	Nucleation on surfaces and in confinement. MRS Bulletin, 2016, 41, 388-392.	1.7	32
6	Crystallization by particle attachment in synthetic, biogenic, and geologic environments. Science, 2015, 349, aaa6760.	6.0	1,467
7	Isotopic tracer evidence for the amorphous calcium carbonate to calcite transformation by dissolutionâ€“reprecipitation. Geochimica Et Cosmochimica Acta, 2015, 165, 407-417.	1.6	51
8	Reconciling disparate views of template-directed nucleation through measurement of calcite nucleation kinetics and binding energies. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 1304-1309.	3.3	122
9	A Mixed Flow Reactor Method to Synthesize Amorphous Calcium Carbonate Under Controlled Chemical Conditions. Methods in Enzymology, 2013, 532, 557-568.	0.4	10
10	Experimental creep behaviour and modelling of silicified sand. Proceedings of the Institution of Civil Engineers: Ground Improvement, 2013, 166, 115-124.	0.7	1
11	Polysaccharide chemistry regulates kinetics of calcite nucleation through competition of interfacial energies. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 9261-9266.	3.3	173
12	Raman spectroscopic characterization of the magnesium content in amorphous calcium carbonates. Journal of Raman Spectroscopy, 2012, 43, 543-548.	1.2	57
13	Biologically Inspired Silicification Process for Improving Mechanical Properties of Sand. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2011, 137, 949-957.	1.5	4
14	Molecular Dynamics of Cation Hydration in the Presence of Carboxylated Molecules: Implications for Calcification. Materials Research Society Symposia Proceedings, 2011, 1301, 51.	0.1	1
15	Influence of Ion-Associated Water on the Hydrolysis of Siâ^'O Bonded Interactions. Journal of Physical Chemistry A, 2010, 114, 2534-2542.	1.1	65
16	Molecular Dynamics of Ion Hydration in the Presence of Small Carboxylated Molecules and Implications for Calcification. Journal of Physical Chemistry B, 2010, 114, 10488-10495.	1.2	48
17	Carboxylated molecules regulate magnesium content of amorphous calcium carbonates during calcification. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 21511-21516.	3.3	163
18	Kinetics of Silica Nucleation on Carboxyl- and Amine-Terminated Surfaces: Insights for Biomineralization. Journal of the American Chemical Society, 2009, 131, 5244-5250.	6.6	128

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19	Kinetics of amorphous silica dissolution and the paradox of the silica polymorphs. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 9903-9908.	3.3	189
20	New insights into mechanisms of biomolecular control on growth of inorganic crystals. CrystEngComm, 2007, 9, 1144.	1.3	77
21	Structural Development of Mercaptophenol Self-Assembled Monolayers and the Overlying Mineral Phase during Templated CaCO₃ Crystallization from a Transient Amorphous Film. Journal of the American Chemical Society, 2007, 129, 10370-10381.	6.6	89
22	Mechanisms of classical crystal growth theory explain quartz and silicate dissolution behavior. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 15357-15362.	3.3	254
23	Nanoscale effects of strontium on calcite growth: An in situ AFM study in the absence of vital effects. Geochimica Et Cosmochimica Acta, 2005, 69, 3017-3027.	1.6	120
24	Effects of temperature and transport conditions on calcite growth in the presence of Mg2+: Implications for paleothermometry. Geochimica Et Cosmochimica Acta, 2005, 69, 4227-4236.	1.6	89
25	Surface charge density on silica in alkali and alkaline earth chloride electrolyte solutions. Geochimica Et Cosmochimica Acta, 2005, 69, 4963-4970.	1.6	202
26	MATERIALS SCIENCE: Shaping Crystals with Biomolecules. Science, 2004, 306, 1301-1302.	6.0	174
27	Morphological consequences of differential Mg²⁺incorporation at structurally distinct steps on calcite. American Mineralogist, 2004, 89, 714-720.	0.9	145
28	Title is missing!. Aquatic Geochemistry, 2001, 7, 13-32.	1.5	64
29	The Kinetics of Calcite Growth: Interpreting Chemical Affinity-Based Rate Laws Through the Lens of Direct Observation. Materials Research Society Symposia Proceedings, 2000, 620, 1.	0.1	0
30	Resolving the Control of Magnesium on Calcite Growth: Thermodynamic and Kinetic Consequences of Impurity Incorporation for Biomineral Formation. Materials Research Society Symposia Proceedings, 2000, 620, 1.	0.1	5
31	Kinetics of calcite growth: surface processes and relationships to macroscopic rate laws. Geochimica Et Cosmochimica Acta, 2000, 64, 2255-2266.	1.6	388
32	The dissolution kinetics of amorphous silica into sodium chloride solutions: effects of temperature and ionic strength. Geochimica Et Cosmochimica Acta, 2000, 64, 4193-4203.	1.6	265
33	The Role of Mg2+ as an Impurity in Calcite Growth. Science, 2000, 290, 1134-1137.	6.0	638
34	Reversed calcite morphologies induced by microscopic growth kinetics: insight into biomineralization. Geochimica Et Cosmochimica Acta, 1999, 63, 2507-2512.	1.6	113
35	The dissolution kinetics of quartz in aqueous mixed cation solutions. Geochimica Et Cosmochimica Acta, 1999, 63, 3715-3727.	1.6	221
36	Thermodynamics of Calcite Growth: Baseline for Understanding Biomineral Formation. , 1998, 282, 724-727.		448

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37	The influence of the alkaline earth cations, magnesium, calcium, and barium on the dissolution kinetics of quartz. Geochimica Et Cosmochimica Acta, 1997, 61, 3329-3340.	1.6	192
38	Microbially catalyzed dissolution of iron and aluminum oxyhydroxide mineral surface coatings. Geochimica Et Cosmochimica Acta, 1997, 61, 4467-4477.	1.6	96
39	Surface site-specific interactions of aspartate with calcite during dissolution; implications for biomineralization. American Mineralogist, 1997, 82, 878-887.	0.9	109
40	Compatible real-time rates of mineral dissolution by Atomic Force Microscopy (AFM). Chemical Geology, 1996, 127, 331-338.	1.4	112
41	Investigation of bacterial-mineral interactions using Fluid Tapping Modeâ„¢ Atomic Force Microscopy. Geochimica Et Cosmochimica Acta, 1996, 60, 2473-2480.	1.6	55
42	Geochemical controls on the kinetics of quartz fracture at subcritical tensile stresses. Journal of Geophysical Research, 1995, 100, 22349-22359.	3.3	75
43	Crystal chemical controls on the dissolution kinetics of the isostructural sulfates: Celestite, anglesite, and barite. Geochimica Et Cosmochimica Acta, 1995, 59, 1907-1915.	1.6	121
44	Dissolution rate of quartz in lead and sodium electrolyte solutions between 25 and 300Â°C: Effect of the nature of surface complexes and reaction affinity. Geochimica Et Cosmochimica Acta, 1994, 58, 541-551.	1.6	197
45	Calcite precipitation mechanisms and inhibition by orthophosphate: In situ observations by Scanning Force Microscopy. Geochimica Et Cosmochimica Acta, 1993, 57, 705-714.	1.6	309
46	Reply to Comment on â€œKinetics of quartz dissolution in electrolyte solutions using a hydrothermal mixed flow reactorâ€• Geochimica Et Cosmochimica Acta, 1992, 56, 4093.	1.6	1
47	Dissolution kinetics of quartz in sodium chloride solutions: Analysis of existing data and a rate model for 25Â°C. Geochimica Et Cosmochimica Acta, 1992, 56, 4147-4156.	1.6	181
48	Kinetics of quartz dissolution in electrolyte solutions using a hydrothermal mixed flow reactor. Geochimica Et Cosmochimica Acta, 1990, 54, 955-969.	1.6	422
49	Mineral/solution reaction rates in a mixed flow reactor: Wollastonite hydrolysis. Geochimica Et Cosmochimica Acta, 1986, 50, 2509-2516.	1.6	141