

# Benjamin M Tutolo

## List of Publications by Year in descending order

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Version: 2024-02-01

36  
papers

1,406  
citations

361296

20  
h-index

345118

36  
g-index

38  
all docs

38  
docs citations

38  
times ranked

1882  
citing authors

#	ARTICLE	IF	CITATIONS
1	Expanding the role of reactive transport models in critical zone processes. <i>Earth-Science Reviews</i> , 2017, 165, 280-301.	4.0	207
2	The Lost City hydrothermal system: Constraints imposed by vent fluid chemistry and reaction path models on seafloor heat and mass transfer processes. <i>Geochimica Et Cosmochimica Acta</i> , 2015, 163, 59-79.	1.6	104
3	Decrease in CO <sub>2</sub> efflux from northern hardwater lakes with increasing atmospheric warming. <i>Nature</i> , 2015, 519, 215-218.	13.7	102
4	Experimental dissolution of dolomite by CO <sub>2</sub> -charged brine at 100°C and 150bar: Evolution of porosity, permeability, and reactive surface area. <i>Chemical Geology</i> , 2014, 380, 145-160.	1.4	94
5	CO <sub>2</sub> sequestration in feldspar-rich sandstone: Coupled evolution of fluid chemistry, mineral reaction rates, and hydrogeochemical properties. <i>Geochimica Et Cosmochimica Acta</i> , 2015, 160, 132-154.	1.6	87
6	Hydrothermal Transport of Ag, Au, Cu, Pb, Te, Zn, and Other Metals and Metalloids in New Zealand Geothermal Systems: Spatial Patterns, Fluid-Mineral Equilibria, and Implications for Epithermal Mineralization. <i>Economic Geology</i> , 2016, 111, 589-618.	1.8	70
7	Nanoscale constraints on porosity generation and fluid flow during serpentinization. <i>Geology</i> , 2016, 44, 103-106.	2.0	68
8	Magnetite authigenesis and the warming of early Mars. <i>Nature Geoscience</i> , 2018, 11, 635-639.	5.4	66
9	Permeability, porosity, and mineral surface area changes in basalt cores induced by reactive transport of CO <sub>2</sub> -rich brine. <i>Water Resources Research</i> , 2017, 53, 1908-1927.	1.7	65
10	Experimental examination of the Mg-silicate-carbonate system at ambient temperature: Implications for alkaline chemical sedimentation and lacustrine carbonate formation. <i>Geochimica Et Cosmochimica Acta</i> , 2018, 225, 80-101.	1.6	56
11	DBCreate: A SUPCRT92-based program for producing EQ3/6, TOUGHREACT, and GWB thermodynamic databases at user-defined T and P. <i>Computers and Geosciences</i> , 2013, 51, 415-417.	2.0	53
12	Whole rock basalt alteration from CO <sub>2</sub> -rich brine during flow-through experiments at 150 °C and 150 bar. <i>Chemical Geology</i> , 2017, 453, 92-110.	1.4	52
13	High performance reactive transport simulations examining the effects of thermal, hydraulic, and chemical (THC) gradients on fluid injectivity at carbonate CCUS reservoir scales. <i>International Journal of Greenhouse Gas Control</i> , 2015, 39, 285-301.	2.3	39
14	Serpentinization as a reactive transport process: The brucite silicification reaction. <i>Earth and Planetary Science Letters</i> , 2018, 484, 385-395.	1.8	34
15	Internal consistency in aqueous geochemical data revisited: Applications to the aluminum system. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 133, 216-234.	1.6	33
16	Permeability Reduction Produced by Grain Reorganization and Accumulation of Exsolved CO <sub>2</sub> during Geologic Carbon Sequestration: A New CO <sub>2</sub> Trapping Mechanism. <i>Environmental Science &amp; Technology</i> , 2013, 47, 242-251.	4.6	32
17	Serpentinization of olivine at 300 °C and 500 bars: An experimental study examining the role of silica on the reaction path and oxidation state of iron. <i>Chemical Geology</i> , 2017, 475, 122-134.	1.4	29
18	A seawater throttle on H <sub>2</sub> production in Precambrian serpentinizing systems. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 14756-14763.	3.3	28

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19	Serpentine-Hisingerite Solid Solution in Altered Ferroan Peridotite and Olivine Gabbro. <i>Minerals (Basel, Switzerland)</i> , 2019, 9, 47.	0.8	22
20	Experimental Observation of Permeability Changes In Dolomite at CO <sub>2</sub> Sequestration Conditions. <i>Environmental Science &amp; Technology</i> , 2014, 48, 140203132426009.	4.6	21
21	Alkalinity Generation Constraints on Basalt Carbonation for Carbon Dioxide Removal at the Gigaton-per-Year Scale. <i>Environmental Science &amp; Technology</i> , 2021, 55, 11906-11915.	4.6	21
22	Chemical and physical changes during seawater flow through intact dunite cores: An experimental study at 150–200 °C. <i>Geochimica Et Cosmochimica Acta</i> , 2017, 214, 86-114.	1.6	17
23	Anhydrite solubility in low-density hydrothermal fluids: Experimental measurements and thermodynamic calculations. <i>Chemical Geology</i> , 2019, 524, 184-195.	1.4	17
24	A Series of Data-Driven Hypotheses for Inferring Biogeochemical Conditions in Alkaline Lakes and Their Deposits Based on the Behavior of Mg and SiO <sub>2</sub> . <i>Minerals (Basel, Switzerland)</i> , 2021, 11, 106.	0.8	14
25	PyGeochemCalc: A Python package for geochemical thermodynamic calculations from ambient to deep Earth conditions. <i>Chemical Geology</i> , 2022, 606, 120984.	1.4	13
26	Implications of the redissociation phenomenon for mineral-buffered fluids and aqueous species transport at elevated temperatures and pressures. <i>Applied Geochemistry</i> , 2015, 55, 119-127.	1.4	9
27	Geochemical evaluation of glauconite carbonation during sedimentary diagenesis. <i>Geochimica Et Cosmochimica Acta</i> , 2021, 306, 226-244.	1.6	8
28	Magmatic carbon outgassing and uptake of CO <sub>2</sub> by alkaline waters. <i>American Mineralogist</i> , 2020, 105, 28-34.	0.9	7
29	Experimental evaluation of the role of redox during glauconite-CO <sub>2</sub> -brine interactions. <i>Applied Geochemistry</i> , 2020, 115, 104558.	1.4	7
30	Alternate routes to sustainable energy recovery from fossil fuels reservoirs. Part 1. Investigation of high-temperature reactions between sulfur oxy anions and crude oil. <i>Fuel</i> , 2021, 302, 121050.	3.4	7
31	A rate law for sepiolite growth at ambient temperatures and its implications for early lacustrine diagenesis. <i>Geochimica Et Cosmochimica Acta</i> , 2020, 288, 301-315.	1.6	6
32	Probing the application of kinetic theory to Mg-phyllsilicate growth with Si isotope doping. <i>Geochimica Et Cosmochimica Acta</i> , 2021, 310, 205-220.	1.6	5
33	Evaluation of the potential of glauconite in the Western Canadian Sedimentary Basin for large-scale carbon dioxide mineralization. <i>International Journal of Greenhouse Gas Control</i> , 2022, 117, 103663.	2.3	5
34	Experimental partitioning of osmium between pyrite and fluid: Constraints on the mid-ocean ridge hydrothermal flux of osmium to seawater. <i>Geochimica Et Cosmochimica Acta</i> , 2021, 293, 240-255.	1.6	4
35	Anhydrite replacement reaction in nodular pyrite breccia and its geochemical controls on the <sup>34</sup> S signature of pyrite in the TAG hydrothermal mound, 26° N Mid Atlantic Ridge. <i>Lithos</i> , 2021, 400-401, 106357.	0.6	2
36	Mineralogical characterization and thermodynamic modelling of scales formed in once through steam generators. <i>Fuel</i> , 2022, 308, 121990.	3.4	1