

# Quin R S Miller

## List of Publications by Year in descending order

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31  
papers

901  
citations

516710

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477307

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34  
docs citations

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times ranked

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#	ARTICLE	IF	CITATIONS
1	<i>In Situ</i> Molecular Spectroscopic Evidence for CO <sub>2</sub> Intercalation into Montmorillonite in Supercritical Carbon Dioxide. <i>Langmuir</i> , 2012, 28, 7125-7128.	3.5	117
2	Competitive sorption of CO <sub>2</sub> and H <sub>2</sub> O in 2:1 layer phyllosilicates. <i>Geochimica Et Cosmochimica Acta</i> , 2015, 161, 248-257.	3.9	98
3	Insights into silicate carbonation processes in water-bearing supercritical CO <sub>2</sub> fluids. <i>International Journal of Greenhouse Gas Control</i> , 2013, 15, 104-118.	4.6	80
4	CO <sub>2</sub> Utilization and Storage in Shale Gas Reservoirs: Experimental Results and Economic Impacts. <i>Energy Procedia</i> , 2014, 63, 7844-7851.	1.8	69
5	Quantification of CO <sub>2</sub> Mineralization at the Wallula Basalt Pilot Project. <i>Environmental Science &amp; Technology</i> , 2020, 54, 14609-14616.	10.0	67
6	Experimental Study of Porosity Changes in Shale Caprocks Exposed to CO <sub>2</sub> -Saturated Brines I: Evolution of Mineralogy, Pore Connectivity, Pore Size Distribution, and Surface Area. <i>Environmental Engineering Science</i> , 2016, 33, 725-735.	1.6	56
7	Clay Hydration/dehydration in Dry to Water-saturated Supercritical CO <sub>2</sub> : Implications for Caprock Integrity. <i>Energy Procedia</i> , 2013, 37, 5443-5448.	1.8	39
8	Quantitative Review of Olivine Carbonation Kinetics: Reactivity Trends, Mechanistic Insights, and Research Frontiers. <i>Environmental Science and Technology Letters</i> , 2019, 6, 431-442.	8.7	31
9	Metastable solubility and local structure of amorphous calcium carbonate (ACC). <i>Geochimica Et Cosmochimica Acta</i> , 2020, 289, 196-206.	3.9	27
10	Impacts of Organic Ligands on Forsterite Reactivity in Supercritical CO <sub>2</sub> Fluids. <i>Environmental Science &amp; Technology</i> , 2015, 49, 4724-4734.	10.0	26
11	Anomalously low activation energy of nanoconfined MgCO <sub>3</sub> precipitation. <i>Chemical Communications</i> , 2019, 55, 6835-6837.	4.1	25
12	Experimental Study of Porosity Changes in Shale Caprocks Exposed to Carbon Dioxide-Saturated Brine II: Insights from Aqueous Geochemistry. <i>Environmental Engineering Science</i> , 2016, 33, 736-744.	1.6	22
13	Tunable Manipulation of Mineral Carbonation Kinetics in Nanoscale Water Films via Citrate Additives. <i>Environmental Science &amp; Technology</i> , 2018, 52, 7138-7148.	10.0	22
14	Surface-Catalyzed Oxygen Exchange during Mineral Carbonation in Nanoscale Water Films. <i>Journal of Physical Chemistry C</i> , 2019, 123, 12871-12885.	3.1	21
15	<sup>13</sup> C Nuclear Magnetic Resonance Spectroscopy of Methane and Carbon Dioxide in a Natural Shale. <i>ACS Earth and Space Chemistry</i> , 2019, 3, 324-328.	2.7	19
16	Emerging investigator series: ion diffusivities in nanoconfined interfacial water films contribute to mineral carbonation thresholds. <i>Environmental Science: Nano</i> , 2020, 7, 1068-1081.	4.3	19
17	Desulfurization Efficiency Preserved in a Heterometallic MOF: Synthesis and Thermodynamically Controlled Phase Transition. <i>Advanced Science</i> , 2019, 6, 1802056.	11.2	17
18	Water Structure Controls Carbonic Acid Formation in Adsorbed Water Films. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 4988-4994.	4.6	16

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19	Microporous and Flexible Framework Acoustic Metamaterials for Sound Attenuation and Contrast Agent Applications. ACS Applied Materials & Interfaces, 2018, 10, 44226-44230.	8.0	15
20	Chemical Trapping of CO <sub>2</sub> by Clay Minerals at Reservoir Conditions: Two Mechanisms Observed by in Situ High-Pressure and -Temperature Experiments. ACS Earth and Space Chemistry, 2019, 3, 1034-1046.	2.7	15
21	Silicate Carbonation in Supercritical CO <sub>2</sub> Containing Dissolved H <sub>2</sub> O: An in situ High Pressure X-Ray Diffraction and Infrared Spectroscopy Study. Energy Procedia, 2013, 37, 5892-5896.	1.8	14
22	Pressurized in situ X-ray diffraction insights into super/subcritical carbonation reaction pathways of steelmaking slags and constituent silicate minerals. Journal of Supercritical Fluids, 2021, 171, 105191.	3.2	14
23	Molecular Intermediate in the Directed Formation of a Zeolitic Metal-Organic Framework. Journal of the American Chemical Society, 2020, 142, 17598-17606.	13.7	13
24	Experimental Studies of Reactivity and Transformations of Rocks and Minerals in Water-Bearing Supercritical CO <sub>2</sub> . , 2019, , 63-88.		12
25	Self-repairing polymer-modified cements for high temperature geothermal and fossil energy applications. Geothermics, 2020, 85, 101790.	3.4	12
26	Kinetics and Mechanisms of ZnO to ZIF-8 Transformations in Supercritical CO <sub>2</sub> Revealed by In-Situ X-ray Diffraction. ChemSusChem, 2020, 13, 2602-2612.	6.8	11
27	Experimental Study of Organic Ligand Transport in Supercritical CO <sub>2</sub> Fluids and Impacts to Silicate Reactivity. Energy Procedia, 2014, 63, 3225-3233.	1.8	8
28	Nanoscale Interfacial Smoothing and Dissolution during Unconventional Reservoir Stimulation: Implications for Hydrocarbon Mobilization and Transport. ACS Applied Materials & Interfaces, 2021, 13, 15811-15819.	8.0	7
29	Synergistic Coupling of CO <sub>2</sub> and H <sub>2</sub> O during Expansion of Clays in Supercritical CO <sub>2</sub> -CH <sub>4</sub> Fluid Mixtures. Environmental Science & Technology, 2021, 55, 11192-11203.	10.0	3
30	Geophysical Monitoring with Seismic Metamaterial Contrast Agents. , 2019, , .		2
31	Porous Colloidal Nanoparticles as Injectable Multimodal Contrast Agents for Enhanced Geophysical Sensing. ACS Applied Materials & Interfaces, 2022, 14, 23420-23425.	8.0	1