

Ryan M Pollyea

List of Publications by Year in descending order

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Version: 2024-02-01

27
papers

720
citations

623734

14
h-index

677142

22
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29
all docs

29
docs citations

29
times ranked

751
citing authors

#	ARTICLE	IF	CITATIONS
1	The Role of Chemistry in Fracture Pattern Development and Opportunities to Advance Interpretations of Geological Materials. <i>Reviews of Geophysics</i> , 2019, 57, 1065-1111.	23.0	182
2	Estimating surface roughness of terrestrial laser scan data using orthogonal distance regression. <i>Geology</i> , 2011, 39, 623-626.	4.4	102
3	TOUGH3: A new efficient version of the TOUGH suite of multiphase flow and transport simulators. <i>Computers and Geosciences</i> , 2017, 108, 2-7.	4.2	60
4	Geologic CO ₂ sequestration and permeability uncertainty in a highly heterogeneous reservoir. <i>International Journal of Greenhouse Gas Control</i> , 2019, 83, 128-139.	4.6	38
5	Simulation of CO ₂ mineral trapping and permeability alteration in fractured basalt: Implications for geologic carbon sequestration in mafic reservoirs. <i>International Journal of Greenhouse Gas Control</i> , 2021, 109, 103383.	4.6	36
6	High density oilfield wastewater disposal causes deeper, stronger, and more persistent earthquakes. <i>Nature Communications</i> , 2019, 10, 3077.	12.8	31
7	Spatial and temporal constraints on regional-scale groundwater flow in the Pampa del Tamarugal Basin, Atacama Desert, Chile. <i>Hydrogeology Journal</i> , 2016, 24, 1921-1937.	2.1	30
8	Geospatial analysis of Oklahoma (USA) earthquakes (2011–2016): Quantifying the limits of regional-scale earthquake mitigation measures. <i>Geology</i> , 2018, 46, 215-218.	4.4	22
9	Rate equations for modeling carbon dioxide sequestration in basalt. <i>Applied Geochemistry</i> , 2017, 81, 53-62.	3.0	21
10	A multi-dimensional parametric study of variability in multi-phase flow dynamics during geologic CO ₂ sequestration accelerated with machine learning. <i>Applied Energy</i> , 2021, 287, 116580.	10.1	21
11	Influence of relative permeability on injection pressure and plume configuration during CO ₂ injections in a mafic reservoir. <i>International Journal of Greenhouse Gas Control</i> , 2016, 46, 7-17.	4.6	19
12	Directional semivariogram analysis to identify and rank controls on the spatial variability of fracture networks. <i>Journal of Structural Geology</i> , 2018, 108, 34-51.	2.3	19
13	Implications of spatial reservoir uncertainty for CO ₂ sequestration in the east Snake River Plain, Idaho (USA). <i>Hydrogeology Journal</i> , 2012, 20, 689-699.	2.1	18
14	Physical constraints on geologic CO ₂ sequestration in low-volume basalt formations. <i>Bulletin of the Geological Society of America</i> , 2014, 126, 344-351.	3.3	17
15	A parametric analysis of capillary pressure effects during geologic carbon sequestration in a sandstone reservoir. , 2018, 8, 1039-1052.		15
16	Experimental evaluation of terrestrial LiDAR-based surface roughness estimates. , 2012, 8, 222-228.		14
17	A probabilistic assessment of geomechanical reservoir integrity during CO ₂ sequestration in flood basalt formations. , 2019, 9, 979-998.		13
18	Using Heat as a Predictor of CO ₂ Breakthrough in Highly Heterogeneous Reservoirs. <i>Geophysical Research Letters</i> , 2019, 46, 5879-5888.	4.0	12

#	ARTICLE	IF	CITATIONS
19	Topographically driven fluid flow within orogenic wedges: Effects of taper angle and depth-dependent permeability. , 2015, 11, 1427-1437.		10
20	Three-Phase CO ₂ Flow in a Basalt Fracture Network. Water Resources Research, 2017, 53, 8980-8998.	4.2	10
21	A new perspective on the hydraulics of oilfield wastewater disposal: how PTX conditions affect fluid pressure transients that cause earthquakes. Energy and Environmental Science, 2020, 13, 3014-3031.	30.8	8
22	Permeability correlation structure of the Columbia River Plateau and implications for fluid system architecture in continental large igneous provinces. Geology, 2018, 46, 715-718.	4.4	7
23	Advective Heat Transport and the Salt Chimney Effect: A Numerical Analysis. Geofluids, 2018, 2018, 1-18.	0.7	5
24	Explications des pressions de fluides transitoires à longue portée engendrées par le stockage d'eaux usées de champs pétrolifères à l'aide du principe de superposition hydrogéologique. Hydrogeology Journal, 2020, 28, 795-803.	2.1	4
25	Making Sense of Scientific Simulation Ensembles With Semantic Interaction. Computer Graphics Forum, 2020, 39, 325-343.	3.0	4
26	A field sampling strategy for semivariogram inference of fractures in rock outcrops. Stochastic Environmental Research and Risk Assessment, 2013, 27, 1735-1740.	4.0	2
27	A PARAMETRIC ANALYSIS OF CAPILLARY PRESSURE EFFECTS DURING THE CARBON SEQUESTRATION INJECTION PROCESS IN A SANDSTONE RESERVOIR. , 2017, , .		0