Thomas F Gimmi

List of Publications by Year
in descending order

59 papers	1,885 citations	279701 23 h-index	265120 42 g-index
60 all docs	60 docs citations	60 times ranked	1152 citing authors

#	Article	IF	Citations
1	Characterisation of Gas Transport Properties of the Opalinus Clay, a Potential Host Rock Formation for Radioactive Waste Disposal. Oil and Gas Science and Technology, 2005, 60, 121-139.	1.4	243
2	Natural tracer profiles across argillaceous formations. Applied Geochemistry, 2011, 26, 1035-1064.	1.4	154
3	Diffusion-driven transport in clayrock formations. Applied Geochemistry, 2012, 27, 463-478.	1.4	99
4	Long-term diffusion experiment at Mont Terri: first results from field and laboratory data. Applied Clay Science, 2004, 26, 123-135.	2.6	95
5	How Mobile Are Sorbed Cations in Clays and Clay Rocks?. Environmental Science & Technology, 2011, 45, 1443-1449.	4.6	93
6	In-situ diffusion of HTO, 22Na+, Cs+ and I- in Opalinus Clay at the Mont Terri underground rock laboratory. Radiochimica Acta, 2004, 92, 757-763.	0.5	88
7	Diffusion of HTO, Brâˆ', Iâˆ', Cs+, 85Sr2+ and 60Co2+ in a clay formation: Results and modelling from an in situ experiment in Opalinus Clay. Applied Geochemistry, 2008, 23, 678-691.	1.4	80
8	Self-diffusion of water and its dependence on temperature and ionic strength in highly compacted montmorillonite, illite and kaolinite. Applied Geochemistry, 2008, 23, 3840-3851.	1.4	76
9	Stable water isotopes in pore water of Jurassic argillaceous rocks as tracers for solute transport over large spatial and temporal scales. Water Resources Research, 2007, 43, .	1.7	69
10	Up-Scaling of Molecular Diffusion Coefficients in Clays: A Two-Step Approach. Journal of Physical Chemistry C, 2011, 115, 6703-6714.	1.5	55
11	Simulating Donnan equilibria based on the Nernst-Planck equation. Geochimica Et Cosmochimica Acta, 2018, 232, 1-13.	1.6	47
12	Translational diffusion of water and its dependence on temperature in charged and uncharged clays: A neutron scattering study. Journal of Chemical Physics, 2008, 129, 174706.	1.2	43
13	Combined effects of heterogeneity, anisotropy, and saturation on steady state flow and transport: A laboratory sand tank experiment. Water Resources Research, 2001, 37, 201-208.	1.7	42
14	Anisotropic diffusion at the field scale in a 4-year multi-tracer diffusion and retention experiment â€“ I: Insights from the experimental data. Geochimica Et Cosmochimica Acta, 2014, 125, 373-393.	1.6	40
15	Linking the Diffusion of Water in Compacted Clays at Two Different Time Scales: Tracer Through-Diffusion and Quasielastic Neutron Scattering. Environmental Science & Technology, 2009, 43, 3487-3493.	4.6	36
16	Multi-scale micro-structure generation strategy for up-scaling transport in clays. Advances in Water Resources, 2013, 59, 181-195.	1.7	31
17	Constraining porewater chemistry in a 250 m thick argillaceous rock sequence. Chemical Geology, 2016, 434, 43-61.	1.4	30
18	Transport of volatile chlorinated hydrocarbons in unsaturated aggregated media. Water, Air, and Soil Pollution, 1993, 68, 291-305.	1.1	29

#	Article	IF	Citations
19	Modeling Reactive Gas Uptake, Transport, and Transformation in Aggregated Soils. Soil Science Society of America Journal, 1990, 54, 1206-1213.	1.2	28
20	Upscaling of anisotropy in unsaturated Miller-similar porous media. Water Resources Research, 2000, 36, 421-430.	1.7	28
21	Dilution of non-reactive tracers in variably saturated sandy structures. Advances in Water Resources, 2001, 24, 877-885.	1.7	28
22	Interaction of ordinary Portland cement and Opalinus Clay: Dual porosity modelling compared to experimental data. Physics and Chemistry of the Earth, 2017, 99, 22-37.	1.2	27
23	Measurements of Water Potential and Water Content in Unsaturated Cystalline Rock. Water Resources Research, 1995, 31, 1837-1843.	1.7	26
24	Modeling the Ionic Strength Effect on Diffusion in Clay. The DR-A Experiment at Mont Terri. ACS Earth and Space Chemistry, 2019, 3, 442-451.	1.2	25
25	Field-scale water transport in unsaturated crystalline rock. Water Resources Research, 1997, 33, 589-598.	1.7	24
26	Reconstruction of palaeoinfiltration during the Holocene using porewater data (Laxemar, Sweden). Geochimica Et Cosmochimica Acta, 2012, 94, 109-127.	1.6	23
27	Multicomponent diffusion in a 280â€¯m thick argillaceous rock sequence. Applied Geochemistry, 2018, 95, 110-123.	1.4	22
28	Water retention and diffusion in unsaturated clays: Connecting atomistic and pore scale simulations. Applied Clay Science, 2019, 175, 169-183.	2.6	22
29	Resolving diffusion in clay minerals at different time scales: Combination of experimental and modeling approaches. Applied Clay Science, 2014, 96, 36-44.	2.6	21
30	Biogeochemical processes in a clay formation in situ experiment: Part F â€" Reactive transport modelling. Applied Geochemistry, 2011, 26, 1009-1022.	1.4	20
31	Exploring diffusion and sorption processes at the Mont Terri rock laboratory (Switzerland): lessons learned from 20Âyears of field research. Swiss Journal of Geosciences, 2017, 110, 391-403.	0.5	19
32	6.2 Solute Diffusion. Soil Science Society of America Book Series, 0, , 1323-1351.	0.3	16
33	Porewater chemistry of Opalinus Clay revisited: Findings from 25 years of data collection at the Mont Terri Rock Laboratory. Applied Geochemistry, 2022, 138, 105234.	1.4	16
34	Combined tracer through-diffusion of HTO and 22Na through Na-montmorillonite with different bulk dry densities. Applied Geochemistry, 2018, 93, 158-166.	1.4	15
35	Effects of drilling and stress release on transport properties and porewater chemistry of crystalline rocks. Journal of Hydrology, 2011, 405, 316-332.	2.3	13
36	Incorporating electrical double layers into reactive-transport simulations of processes in clays by using the Nernst-Planck equation: A benchmark revisited. Applied Geochemistry, 2018, 89, 1-10.	1.4	13

#	Article	IF	Citations
37	Quantification of Water Content Across a Cement-clay Interface Using High Resolution Neutron Radiography. Physics Procedia, 2015, 69, 516-523.	1.2	12
38	Time-resolved porosity changes at cement-clay interfaces derived from neutron imaging. Cement and Concrete Research, 2020, 127, 105924.	4.6	12
39	Flux and Resident Injection in Gaseous Advection Experiments. Water Resources Research, 1996, 32, 1-7.	1.7	11
40	The influence of small pores on the anion transport properties of natural argillaceous rocks â€" A pore size distribution investigation of Opalinus Clay and Helvetic Marl. Applied Clay Science, 2018, 156, 134-143.	2.6	11
41	Solving the Nernstâ€Planck Equation in Heterogeneous Porous Media With Finite Volume Methods: Averaging Approaches at Interfaces. Water Resources Research, 2020, 56, e2019WR026832.	1.7	11
42	Dynamics of supercooled water in highly compacted clays studied by neutron scattering. Journal of Physics Condensed Matter, 2008, 20, 415102.	0.7	9
43	Evolution of HTO and 36Clâˆ' diffusion through a reacting cement-clay interface (OPC paste-Na) Tj ETQq1 1 0.784314 rgBT /Overlock	1.4	9
44	Transport of 234U in the Opalinus Clay on centimetre to decimetre scales. Applied Geochemistry, 2009, 24, 138-152.	1.4	8
45	Mapping Material Distribution in a Heterogeneous Sand Tank by Image Analysis. Soil Science Society of America Journal, 2004, 68, 1508-1514.	1.2	7
46	Porewater Chemistry in Claystones in the Context of Radioactive Waste Disposal. Procedia Earth and Planetary Science, 2017, 17, 718-721.	0.6	7
47	Translational diffusion of water in compacted clay systems. European Physical Journal: Special Topics, 2007, 141, 65-68.	1.2	6
48	Identifying temporally and spatially changing boundary conditions at an aquifer â€" aquitard interface using helium in porewater. Applied Geochemistry, 2018, 96, 62-77.	1.4	6
49	Profiles of chloride in matrix porewater as natural tracer for matrix diffusion in crystalline rocks. Applied Geochemistry, 2020, 118, 104635.	1.4	6
50	On the concentration-dependent diffusion of sorbed cesium in Opalinus Clay. Geochimica Et Cosmochimica Acta, 2021, 298, 149-166.	1.6	6
51	Mixing-cell boundary conditions and apparent mass balance errors for advectiveâ€"dispersive solute transport. Journal of Contaminant Hydrology, 1998, 33, 101-131.	1.6	4
52	The DR-A in-situ diffusion experiment at Mont Terri: Effects of changing salinity on diffusion and retention properties.. Materials Research Society Symposia Proceedings, 2014, 1665, 63-69.	0.1	4
53	In-situ X-ray fluorescence to investigate iodide diffusion in opalinus clay: Demonstration of a novel experimental approach. Chemosphere, 2021, 269, 128674.	4.2	4
54	Exploring diffusion and sorption processes at the Mont Terri rock laboratory (Switzerland): lessons learned from 20 years of field research. Swiss Journal of Geosciences Supplement, 2018, , 393-405.	0.0	4

#	Article	IF	Citations
55	Resolving Cl and SO4 Profiles in a Clay-Rich Rock Sequence. Procedia Earth and Planetary Science, 2013, 7, 892-895.	0.6	3
56	Reconstruction of in-situ porosity and porewater compositions of low-permeability crystalline rocks: Magnitude of artefacts induced by drilling and sample recovery. Journal of Contaminant Hydrology, 2015, 183, 55-71.	1.6	3
57	Strategies for Reducing Fumigant Loss to the Atmosphere. ACS Symposium Series, 1996, , 104-115.	0.5	2
58	MODELING FIELD DIFFUSION EXPERIMENTS IN CLAY ROCK: INFLUENCE OF NUMERICAL REPRESENTATION OF BOREHOLE AND ROCK INTERFACE. Journal of Environmental Science for Sustainable Society, 2008, 2, 63-70.	0.1	2
59	Identifiability of diffusion and sorption parameters from in situ diffusion experiments by using simultaneously tracer dilution and claystone data. Journal of Contaminant Hydrology, 2012, 142-143, 63-74.	1.6	1