

# Christof Beyer

## List of Publications by Year in descending order

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36  
papers

1,013  
citations

361045

20  
h-index

414034

32  
g-index

38  
all docs

38  
docs citations

38  
times ranked

855  
citing authors

#	ARTICLE	IF	CITATIONS
1	Impacts of the use of the geological subsurface for energy storage: an investigation concept. <i>Environmental Earth Sciences</i> , 2013, 70, 3935-3943.	1.3	138
2	Hydrogen storage in a heterogeneous sandstone formation: dimensioning and induced hydraulic effects. <i>Petroleum Geoscience</i> , 2017, 23, 315-326.	0.9	69
3	Energy storage in the geological subsurface: dimensioning, risk analysis and spatial planning: the ANGUS+ project. <i>Environmental Earth Sciences</i> , 2017, 76, 1.	1.3	67
4	Modelling CO <sub>2</sub> -induced fluid-rock interactions in the Altensalzwedel gas reservoir. Part I: from experimental data to a reference geochemical model. <i>Environmental Earth Sciences</i> , 2012, 67, 563-572.	1.3	49
5	Modelling CO <sub>2</sub> -induced fluid-rock interactions in the Altensalzwedel gas reservoir. Part II: coupled reactive transport simulation. <i>Environmental Earth Sciences</i> , 2012, 67, 573-588.	1.3	45
6	Assessing measurement uncertainty of first-order degradation rates in heterogeneous aquifers. <i>Water Resources Research</i> , 2006, 42, .	1.7	44
7	Quantification of biodegradation for o-xylene and naphthalene using first order decay models, Michaelis-Menten kinetics and stable carbon isotopes. <i>Journal of Contaminant Hydrology</i> , 2009, 105, 118-130.	1.6	43
8	A systematic benchmarking approach for geologic CO <sub>2</sub> injection and storage. <i>Environmental Earth Sciences</i> , 2012, 67, 613-632.	1.3	41
9	Model-based prediction of long-term leaching of contaminants from secondary materials in road constructions and noise protection dams. <i>Waste Management</i> , 2009, 29, 839-850.	3.7	39
10	OpenGeoSys-ChemApp: a coupled simulator for reactive transport in multiphase systems and application to CO <sub>2</sub> storage formation in Northern Germany. <i>Acta Geotechnica</i> , 2014, 9, 67-79.	2.9	37
11	A parallelization scheme to simulate reactive transport in the subsurface environment with OGS#IPhreeqc 5.5.7-3.1.2. <i>Geoscientific Model Development</i> , 2015, 8, 3333-3348.	1.3	36
12	A unified phase equilibrium model for hydrogen solubility and solution density. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 512-529.	3.8	36
13	Uncertainty assessment of contaminant plume length estimates in heterogeneous aquifers. <i>Journal of Contaminant Hydrology</i> , 2006, 87, 73-95.	1.6	34
14	Quantifying Induced Effects of Subsurface Renewable Energy Storage. <i>Energy Procedia</i> , 2015, 76, 633-641.	1.8	29
15	Geochemical modelling of CO <sub>2</sub> -water-rock interactions in a potential storage formation of the North German sedimentary basin. <i>Applied Geochemistry</i> , 2013, 36, 168-186.	1.4	27
16	Determination of First-Order Degradation Rate Constants from Monitoring Networks. <i>Ground Water</i> , 2007, 45, 774-785.	0.7	26
17	A study of preferential flow in heterogeneous media using random walk particle tracking. <i>Geosciences Journal</i> , 2008, 12, 285-297.	0.6	25
18	Influence of temporally variable groundwater flow conditions on point measurements and contaminant mass flux estimations. <i>Journal of Contaminant Hydrology</i> , 2009, 108, 118-133.	1.6	24

#	ARTICLE	IF	CITATIONS
19	Simulation of temperature effects on groundwater flow, contaminant dissolution, transport and biodegradation due to shallow geothermal use. <i>Environmental Earth Sciences</i> , 2016, 75, 1.	1.3	22
20	Using global node-based velocity in random walk particle tracking in variably saturated porous media: application to contaminant leaching from road constructions. <i>Environmental Geology</i> , 2008, 55, 1755-1766.	1.2	20
21	Model based evaluation of a contaminant plume development under aerobic and anaerobic conditions in 2D bench-scale tank experiments. <i>Biodegradation</i> , 2014, 25, 351-371.	1.5	20
22	Evaluation of transverse dispersion effects in tank experiments by numerical modeling: Parameter estimation, sensitivity analysis and revision of experimental design. <i>Journal of Contaminant Hydrology</i> , 2012, 134-135, 22-36.	1.6	17
23	Thermo-hydro-mechanical analysis of cement-based sensible heat stores for domestic applications. <i>Environmental Earth Sciences</i> , 2016, 75, 1.	1.3	17
24	Evaluation of the Role of Heterogeneities on Transverse Mixing in Bench-Scale Tank Experiments by Numerical Modeling. <i>Ground Water</i> , 2014, 52, 368-377.	0.7	14
25	Model Development and Numerical Simulation of a Seasonal Heat Storage in a Contaminated Shallow Aquifer. <i>Energy Procedia</i> , 2015, 76, 361-370.	1.8	14
26	Modelling spatial variability and uncertainty of cadmium leaching to groundwater in an urban region. <i>Journal of Hydrology</i> , 2009, 369, 274-283.	2.3	11
27	Experimental characterization of a lab-scale cement based thermal energy storage system. <i>Applied Energy</i> , 2019, 256, 113937.	5.1	11
28	Distribution of Cd in the vicinity of a metal smelter: Interpolation of soil Cd concentrations with regard to regulative limits. <i>Journal of Plant Nutrition and Soil Science</i> , 2002, 165, 697-705.	1.1	10
29	Temperature-dependent dissolution of residual non-aqueous phase liquids: model development and verification. <i>Environmental Earth Sciences</i> , 2016, 75, 1.	1.3	10
30	Parameterizability of processes in subsurface energy and mass storage. <i>Environmental Earth Sciences</i> , 2016, 75, 1.	1.3	8
31	Experimental and numerical analysis of a cement based thermal energy storage system with a helical heat exchanger. <i>Applied Thermal Engineering</i> , 2021, 185, 116339.	3.0	7
32	A modular cement-based subsurface heat storage: Performance test, model development and thermal impacts. <i>Applied Energy</i> , 2020, 279, 115823.	5.1	4
33	Experimental data for the characterization of heat transfer processes in a cement based thermal energy storage system with helical heat exchanger. <i>Data in Brief</i> , 2019, 27, 104721.	0.5	3
34	Experimental and numerical investigation of a scalable modular geothermal heat storage system. <i>Energy Procedia</i> , 2017, 125, 604-611.	1.8	2
35	CO <sub>2</sub> -brine-mineral Interfacial Reactions Coupled with Fluid Phase Flow. <i>Energy Procedia</i> , 2013, 37, 3816-3824.	1.8	1
36	OpenGeoSys Tutorial. <i>SpringerBriefs in Earth System Sciences</i> , 2017, , .	0.0	0