Olaf Kolditz

List of Publications by Year in Descending Order

247 papers	6,310 citations	39 h-index	67 g-index
291 ext. papers	7,462 ext. citations	3.9 avg, IF	5.97 L-index

#	Paper	IF	Citations
247	Modeling neighborhood-scale shallow geothermal energy utilization: a case study in Berlin. *Geothermal Energy*, **2022**, 10,	3.3	3
246	Importance of long-term ground-loop temperature variation in performance optimization of Ground Source Heat Pump system. *Applied Thermal Engineering*, **2022**, 204, 117945	5.8	0
245	An environmental exploration system for visual scenario analysis of regional hydro-meteorological systems. *Computers and Graphics*, **2022**, 103, 192-200	1.8	0
244	A new operator-splitting finite element scheme for reactive transport modeling in saturated porous media. *Computers and Geosciences*, **2022**, 105106	4.5	0
243	Parametric optimization and comparative study of an organic Rankine cycle power plant for two-phase geothermal sources. *Energy*, **2022**, 123910	7.9	1
242	ogs6py and VTUinterface: streamlining OpenGeoSys workflows in Python. *Journal of Open Source Software*, **2021**, 6, 3673	5.2	1
241	Theoretical Investigation into Thermo-Osmosis and Thermofiltration Effects on Hydromechanical Behavior of Saturated Soils. *Journal of Engineering Mechanics - ASCE*, **2021**, 147, 04021005	2.4	1
240	Numerical investigation on the capacity and efficiency of a deep enhanced U-tube borehole heat exchanger system for building heating. *Renewable Energy*, **2021**, 169, 557-572	8.1	5
239	Analysis of heat extraction performance and long-term sustainability for multiple deep borehole heat exchanger array: A project-based study. *Applied Energy*, **2021**, 289, 116590	10.7	16
238	What process causes the slowdown of pressure solution creep. *Geomechanics and Geophysics for Geo-Energy and Geo-Resources*, **2021**, 7, 1	3.8	1
237	Improved predictions of thermal fluid pressurization in hydro-thermal models based on consistent incorporation of thermo-mechanical effects in anisotropic porous media. *International Journal of Heat and Mass Transfer*, **2021**, 172, 121127	4.9	3
236	Analysis of coupled thermal-hydro-mechanical processes during small scale in situ heater experiment in Callovo-Oxfordian clay rock introducing a failure-index permeability model. *International Journal of Rock Mechanics and Minings Sciences*, **2021**, 142, 104683	6	3
235	Long-term thermal imbalance in large borehole heat exchangers array □A numerical study based on the Leicester project. *Energy and Buildings*, **2021**, 231, 110518	7	9
234	Synthesis and Outlook. *Terrestrial Environmental Sciences*, **2021**, 227-242	0.1	
233	Numerical modeling of two-phase flow in deformable porous media: application to CO(_2) injection analysis in the Otway Basin, Australia. *Environmental Earth Sciences*, **2021**, 80, 1	2.9	
232	Two-phase transport in a cemented waste package considering spatio-temporal evolution of chemical conditions. *Npj Materials Degradation*, **2021**, 5,	5.7	4
231	GeomInt: geomechanical integrity of host and barrier rocks□Experiments, models and analysis of discontinuities. *Environmental Earth Sciences*, **2021**, 80, 1	2.9	2

230	Modeling the impacts of plants and internal organic carbon on remediation performance in the integrated vertical flow constructed wetland. *Water Research*, **2021**, 204, 117635	12.5	1
229	Variational phase-field fracture modeling with interfaces. *Computer Methods in Applied Mechanics and Engineering*, **2021**, 384, 113951	5.7	3
228	Hydro-mechanical continuum modelling of fluid percolation through rock salt. *International Journal of Rock Mechanics and Minings Sciences*, **2021**, 147, 104879	6	0
227	Analysis of coupled thermal-hydro-mechanical processes in Callovo-Oxfordian clay rock: From full-scale experiments to the repository scale. *Engineering Geology*, **2021**, 293, 106265	6	1
226	Non-iterative phase-equilibrium model of the H2O-CO2-NaCl-system for large-scale numerical simulations. *Mathematics and Computers in Simulation*, **2020**, 178, 46-61	3.3	3
225	On crack opening computation in variational phase-field models for fracture. *Computer Methods in Applied Mechanics and Engineering*, **2020**, 369, 113210	5.7	11
224	A three-dimensional software framework for environmental system monitoring and decision support in Poyang lake basin. *Earth Science Informatics*, **2020**, 13, 901-913	2.5	1
223	Hydro-mechanical behavior of unsaturated soil surrounding a heated pipeline considering moisture evaporation and condensation. *Computers and Geotechnics*, **2020**, 119, 103377	4.4	3
222	Shifted thermal extraction rates in large Borehole Heat Exchanger array □A numerical experiment. *Applied Thermal Engineering*, **2020**, 167, 114750	5.8	9
221	Fiber Surfaces for many Variables. *Computer Graphics Forum*, **2020**, 39, 317-329	2.4	2
220	Determination of permeability for hydrocarbon release due to excavation-induced stress redistribution in rock salt. *International Journal of Rock Mechanics and Minings Sciences*, **2020**, 136, 104525	6	2
219	A thermo-hydro-mechanical finite-element model with freezing processes in saturated soils. *Environmental Geotechnics*, **2020**, 1-13	1.2	0
218	Environmental Information Systems: Paving the Path for Digitally Facilitated Water Management (Water 4.0). *Engineering*, **2019**, 5, 828-832	9.7	10
217	The risks of long-term re-injection in supercritical geothermal systems. *Nature Communications*, **2019**, 10, 4391	17.4	36
216	Evaluating the thermal impacts and sustainability of intensive shallow geothermal utilization on a neighborhood scale: Lessons learned from a case study. *Energy Conversion and Management*, **2019**, 199, 111913	10.6	20
215	Comparative verification of discrete and smeared numerical approaches for the simulation of hydraulic fracturing. *GEM - International Journal on Geomathematics*, **2019**, 10, 1	2.7	22
214	Development of Open-Source Porous Media Simulators: Principles and Experiences. *Transport in Porous Media*, **2019**, 130, 337-361	3.1	36
213	Influence of input and parameter uncertainty on the prediction of catchment-scale groundwater travel time distributions. *Hydrology and Earth System Sciences*, **2019**, 23, 171-190	5.5	15

212	Analysis of Coupled Thermo-Hydro-Mechanical Simulations of a Generic Nuclear Waste Repository in Clay Rock Using Fiber Surfaces **2019**,		2
211	Approaches to multi-scale analyses of mechanically and thermally-driven migration of fluid inclusions in salt rocks. *Physics and Chemistry of the Earth*, **2019**, 113, 1-13	3	3
210	Consolidation around a point heat source (correction and verification). *International Journal for Numerical and Analytical Methods in Geomechanics*, **2019**, 43, 2743-2751	4	8
209	Numerical investigation on the performance, sustainability, and efficiency of the deep borehole heat exchanger system for building heating. *Geothermal Energy*, **2019**, 7,	3.3	27
208	Workflows in Environmental Geotechnics: Status-Quo and Perspectives. *Environmental Science and Engineering*, **2019**, 119-127	0.2	0
207	WP-D: Environmental Information System. *Terrestrial Environmental Sciences*, **2019**, 207-229	0.1	
206	Virtual Geographical Environment-Based Environmental Information System for Poyang Lake Basin. *Terrestrial Environmental Sciences*, **2019**, 293-308	0.1	1
205	Hydraulic Characterisation of Clay Rock Under Consideration of Coupled THM Properties. *Environmental Science and Engineering*, **2019**, 33-40	0.2	1
204	Visualization of Symmetries in Fourth-Order Stiffness Tensors **2019**,		2
203	Experimental characterization and numerical modelling of fracture processes in granite. *International Journal of Solids and Structures*, **2019**, 163, 102-116	3.1	25
202	Managing Water Resources for Urban Catchments. *Terrestrial Environmental Sciences*, **2019**, 35-85	0.1	
201	The brittle-ductile transition in active volcanoes. *Scientific Reports*, **2019**, 9, 143	4.9	17
200	Modelling thermal performance degradation of high and low-temperature solid thermal energy storage due to cracking processes using a phase-field approach. *Energy Conversion and Management*, **2019**, 180, 977-989	10.6	10
199	Modelling sorption equilibria and kinetics in numerical simulations of dynamic sorption experiments in packed beds of salt/zeolite composites for thermochemical energy storage. *International Journal of Heat and Mass Transfer*, **2019**, 128, 1102-1113	4.9	11
198	Virtual geographic environments for water pollution control. *International Journal of Digital Earth*, **2018**, 11, 397-407	3.9	13
197	Material forces: An insight into configurational mechanics. *Mechanics Research Communications*, **2018**, 93, 114-118	2.2	3
196	Acceptability of geothermal installations: A geoethical concept for GeoLaB. *Geothermics*, **2018**, 73, 133-145	4.3	18
195	Modeling of Dissolution-Induced Permeability Evolution of a Granite Fracture Under Crustal Conditions. *Journal of Geophysical Research: Solid Earth*, **2018**, 123, 5609-5627	3.6	7

194	Models of Thermochemical Heat Storage. *SpringerBriefs in Energy*, **2018**,	0.3	2
193	Tensor Field Visualization using Fiber Surfaces of Invariant Space. *IEEE Transactions on Visualization and Computer Graphics*, **2018**,	4	10
192	Modeling the groundwater temperature response to extensive operation of ground source heat pump systems: A case study in Germany. *Energy Procedia*, **2018**, 152, 971-977	2.3	6
191	A new approach to coupled two-phase reactive transport simulation for long-term degradation of concrete. *Construction and Building Materials*, **2018**, 190, 805-829	6.7	17
190	Improved regional-scale groundwater representation by the coupling of the mesoscale Hydrologic Model (mHM v5.7) to the groundwater model OpenGeoSys (OGS). *Geoscientific Model Development*, **2018**, 11, 1989-2007	6.3	9
189	Assessment of adsorbate density models for numerical simulations of zeolite-based heat storage applications. *Applied Energy*, **2017**, 185, 1965-1970	10.7	20
188	Parallel finite element modelling of multi-physical processes in thermochemical energy storage devices. *Applied Energy*, **2017**, 185, 1954-1964	10.7	12
187	The Bode hydrological observatory: a platform for integrated, interdisciplinary hydro-ecological research within the TERENO Harz/Central German Lowland Observatory. *Environmental Earth Sciences*, **2017**, 76, 1	2.9	65
186	Thermo-mechanical investigation of salt caverns for short-term hydrogen storage. *Environmental Earth Sciences*, **2017**, 76, 1	2.9	28
185	Improving large-scale groundwater models by considering fossil gradients. *Advances in Water Resources*, **2017**, 103, 32-43	4.7	11
184	Optimization of well-doublet placement in geothermal reservoirs using numerical simulation and economic analysis. *Environmental Earth Sciences*, **2017**, 76, 1	2.9	21
183	How significant is the slope of the sea-side boundary for modelling seawater intrusion in coastal aquifers?. *Journal of Hydrology*, **2017**, 551, 648-659	6	35
182	Individual and combined effects of humic acid, bicarbonate and calcium on TCE removal kinetics, aging behavior and electron efficiency of mZVI particles. *Chemical Engineering Journal*, **2017**, 324, 324-335	14.7	22
181	Basics of Thermomechanics and Inelasticity. *SpringerBriefs in Energy*, **2017**, 7-22	0.3	
180	Simulation of Laboratory Tests. *SpringerBriefs in Energy*, **2017**, 23-43	0.3	
179	Simulating Gas Storage in Salt Caverns. *SpringerBriefs in Energy*, **2017**, 45-62	0.3	1
178	Computational Geotechnics. *SpringerBriefs in Energy*, **2017**,	0.3	1
177	Calibration of water–granite interaction with pressure solution in a flow-through fracture under confining pressure. *Environmental Earth Sciences*, **2017**, 76, 1	2.9	7

176	Water balance estimation under the challenge of data scarcity in a hyperarid to Mediterranean region. *Hydrological Processes*, **2017**, 31, 2395-2411	3.3	4
175	A synthesis of approaches for modelling coupled thermal–hydraulic–mechanical–chemical processes in a single novaculite fracture experiment. *Environmental Earth Sciences*, **2017**, 76, 1	2.9	13
174	Thermo-mechanical analysis of heat exchanger design for thermal energy storage systems. *Applied Thermal Engineering*, **2017**, 114, 1082-1089	5.8	6
173	Implicit numerical integration and consistent linearization of inelastic constitutive models of rock salt. *Computers and Structures*, **2017**, 182, 87-103	4.5	17
172	Analysis of Chlorophyll-aCorrelation to Determine Nutrient Limitations in the Coastal Waters of the Bohai Sea, China. *Journal of Coastal Research*, **2017**, 332, 396-407	0.6	1
171	Thermal convection of viscous fluids in a faulted system: 3D benchmark for numerical codes. *Energy Procedia*, **2017**, 125, 310-317	2.3	3
170	Improved representation of groundwater at a regional scale – coupling of mesocale Hydrologic Model (mHM) with OpeneGeoSys (OGS) **2017**,		2
169	Numerical modelling of water sorption isotherms of zeolite 13XBF based on sparse experimental data sets for heat storage applications. *Energy Conversion and Management*, **2017**, 150, 392-402	10.6	10
168	Effect of solution pH on aging dynamics and surface structural evolution of mZVI particles: H production and spectroscopic/microscopic evidence. *Environmental Science and Pollution Research*, **2017**, 24, 23538-23548	5.1	6
167	Water loading lift and heat storage density prediction of adsorption heat storage systems using Dubinin-Polanyi theory—comparison with experimental results. *Applied Energy*, **2017**, 207, 274-282	10.7	8
166	A Comparison of Heat Storage Densities of Zeolite Granulates Predicted by the Dubinin-polanyi Theory to Experimental Measurements. *Energy Procedia*, **2017**, 105, 4334-4339	2.3	2
165	Hydromechanical modelling of the SEALEX experiments. *Environmental Earth Sciences*, **2017**, 76, 1	2.9	2
164	Development and application of a novel method for regional assessment of groundwater contamination risk in the Songhua River Basin. *Science of the Total Environment*, **2017**, 605-606, 598-609	10.2	20
163	Numerical modeling of early diagenetic processes in Haiyang 4 Area in the northern slope of the South China Sea. *Environmental Earth Sciences*, **2017**, 76, 1	2.9	
162	Identifying the influential aquifer heterogeneity factor on nitrate reduction processes by numerical simulation. *Advances in Water Resources*, **2017**, 99, 38-52	4.7	16
161	Geoenergy Modeling II. *SpringerBriefs in Energy*, **2016**,	0.3	5
160	Analysis of the THM behaviour in a clay-based engineered barrier system (EBS): modelling of the HE-E experiment (Mont Terri URL). *Environmental Earth Sciences*, **2016**, 75, 1	2.9	0
159	A water quality model applied for the rivers into the Qinhuangdao coastal water in the Bohai Sea, China. *Journal of Hydrodynamics*, **2016**, 28, 905-913	3.3	14

158	Geoenergy Modeling I. *SpringerBriefs in Energy*, **2016**,	0.3	4
157	Screening the geomechanical stability (thermal and mechanical) of shared multi-user CO2 storage assets: A simple effective tool applied to the Captain Sandstone Aquifer. *International Journal of Greenhouse Gas Control*, **2016**, 45, 43-61	4.2	13
156	Remediation of trichloroethylene-contaminated groundwater by three modifier-coated microscale zero-valent iron. *Environmental Science and Pollution Research*, **2016**, 23, 14442-50	5.1	8
155	Multi-physical continuum models of thermochemical heat storage and transformation in porous media and powder beds□A review. *Applied Energy*, **2016**, 178, 323-345	10.7	45
154	Impact of heterogeneous permeability distribution on the groundwater flow systems of a small sedimentary basin. *Journal of Hydrology*, **2016**, 532, 90-101	6	13
153	A numerical study on the sustainability and efficiency of borehole heat exchanger coupled ground source heat pump systems. *Applied Thermal Engineering*, **2016**, 100, 421-433	5.8	101
152	Transport and retention of xanthan gum-stabilized microscale zero-valent iron particles in saturated porous media. *Water Research*, **2016**, 88, 199-206	12.5	33
151	Heat Transport Exercises. *SpringerBriefs in Energy*, **2016**, 39-90	0.3	
150	Introduction to Geothermal Case Studies. *SpringerBriefs in Energy*, **2016**, 91-94	0.3	
149	Case Study: A GSHP System in the Leipzig Area. *SpringerBriefs in Energy*, **2016**, 61-79	0.3	
148	Thermo-hydro-mechanical analysis of cement-based sensible heat stores for domestic applications. *Environmental Earth Sciences*, **2016**, 75, 1	2.9	12
147	Efficiency and economic analysis of utilizing latent heat from groundwater freezing in the context of borehole heat exchanger coupled ground source heat pump systems. *Applied Thermal Engineering*, **2016**, 105, 314-326	5.8	35
146	On advantages of the Kelvin mapping in finite element implementations of deformation processes. *Environmental Earth Sciences*, **2016**, 75, 1	2.9	11
145	Distinct kinetics and mechanisms of mZVI particles aging in saline and fresh groundwater: H2 evolution and surface passivation. *Water Research*, **2016**, 100, 80-87	12.5	27
144	Quantification of exploitable shallow geothermal energy by using Borehole Heat Exchanger coupled Ground Source Heat Pump systems. *Energy Conversion and Management*, **2016**, 127, 80-89	10.6	22
143	Development of approaches for modelling coupled thermal□ydraulic□echanical□hemical processes in single granite fracture experiments. *Environmental Earth Sciences*, **2016**, 75, 1	2.9	10
142	Comments on □A mass-conservative switching algorithm for modeling fluid flow in variably saturated porous media, K. Sadegh Zadeh, Journal of Computational Physics, 230 (2011)□*Journal of Computational Physics*, **2015**, 295, 815-820	4.1	1
141	Remediation of trichloroethylene by xanthan gum-coated microscale zero valent iron (XG-mZVI) in groundwater: Effects of geochemical constituents. *Chemical Engineering Journal*, **2015**, 271, 164-172	14.7	23

140	Design and integration of a GIS-based data model for the regional hydrologic simulation in Meijiang watershed, China. *Environmental Earth Sciences*, **2015**, 74, 7147-7158	2.9	6
139	Numerical modeling of heating and hydration experiments on bentonite pellets. *Engineering Geology*, **2015**, 198, 94-106	6	14
138	Reactive transport codes for subsurface environmental simulation. *Computational Geosciences*, **2015**, 19, 445-478	2.7	408
137	Numerical stability analysis of two-dimensional solute transport along a discrete fracture in a porous rock matrix. *Water Resources Research*, **2015**, 51, 5855-5868	5.4	6
136	Numerical interpretation of gas-injection tests at different scales. *Geological Society Special Publication*, **2015**, 415, 203-212	1.7	5
135	A Parallel FEM Scheme for the Simulation of Large Scale Thermochemical Energy Storage with Complex Geometries using PETSc Routines. *Energy Procedia*, **2015**, 75, 2080-2086	2.3	0
134	The Impact of Adsorbate Density Models on the Simulation of Water Sorption on Nanoporous Materials for Heat Storage. *Energy Procedia*, **2015**, 75, 2106-2112	2.3	2
133	Extending the persistent primary variable algorithm to simulate non-isothermal two-phase two-component flow with phase change phenomena. *Geothermal Energy*, **2015**, 3,	3.3	3
132	Virtual Environments Begin to Embrace Process-based Geographic Analysis. *Transactions in GIS*, **2015**, 19, 493-498	2.1	42
131	A parallelization scheme to simulate reactive transport in the subsurface environment with OGS#IPhreeqc 5.5.7-3.1.2. *Geoscientific Model Development*, **2015**, 8, 3333-3348	6.3	26
130	GO2OGS 1.0: a versatile workflow to integrate complex geological information with fault data into numerical simulation models. *Geoscientific Model Development*, **2015**, 8, 3681-3694	6.3	15
129	Mechanism insights into enhanced trichloroethylene removal using xanthan gum-modified microscale zero-valent iron particles. *Journal of Environmental Management*, **2015**, 150, 420-426	7.9	26
128	A parallel finite element method for two-phase flow processes in porous media: OpenGeoSys with PETSc. *Environmental Earth Sciences*, **2015**, 73, 2269-2285	2.9	16
127	MEVA--An Interactive Visualization Application for Validation of Multifaceted Meteorological Data with Multiple 3D Devices. *PLoS ONE*, **2015**, 10, e0123811	3.7	9
126	Seismic and Sub-seismic Deformation Prediction in the Context of Geological Carbon Trapping and Storage. *Advanced Technologies in Earth Sciences*, **2015**, 97-113		5
125	The influence of gas–solid reaction kinetics in models of thermochemical heat storage under monotonic and cyclic loading. *Applied Energy*, **2014**, 136, 289-302	10.7	23
124	Concept and workflow for 3D visualization of atmospheric data in a virtual reality environment for analytical approaches. *Environmental Earth Sciences*, **2014**, 72, 3767-3780	2.9	49
123	Assessing the saltwater remediation potential of a three-dimensional, heterogeneous, coastal aquifer system. *Environmental Earth Sciences*, **2014**, 72, 3827-3837	2.9	40

122	Description and verification of a novel flow and transport model for silicate-gel emplacement. *Journal of Contaminant Hydrology*, **2014**, 157, 1-10	3.9	4
121	Surface-subsurface model intercomparison: A first set of benchmark results to diagnose integrated hydrology and feedbacks. *Water Resources Research*, **2014**, 50, 1531-1549	5.4	175
120	Joint interpretation of geoelectrical and soil-gas measurements for monitoring CO2 releases at a natural analogue. *Near Surface Geophysics*, **2014**, 12, 165-178	1.6	12
119	Rendering technique of multi-layered domain boundaries and its application to fluid flow in porous media visualizations. *Environmental Earth Sciences*, **2014**, 72, 3795-3802	2.9	1
118	Numerical analysis of thermal impact on hydro-mechanical properties of clay. *Journal of Rock Mechanics and Geotechnical Engineering*, **2014**, 6, 405-416	5.3	12
117	Numerical modelling of moisture controlled laboratory swelling/shrinkage experiments on argillaceous rocks. *Geological Society Special Publication*, **2014**, 400, 359-366	1.7	2
116	TESSIN VISLab□aboratory for scientific visualization. *Environmental Earth Sciences*, **2014**, 72, 3881-3899	2.9	26
115	Recent studies on hydrothermal systems in China: a review. *Geothermal Energy*, **2014**, 2,	3.3	19
114	Toward physical aspects affecting a possible leakage of geologically stored CO2 into the shallow subsurface. *Acta Geotechnica*, **2014**, 9, 81-86	4.9	6
113	Visualisation strategies for environmental modelling data. *Environmental Earth Sciences*, **2014**, 72, 3857-3868	2.9	24
112	Analysis of flow path around the sealing section HG-A experiment in the Mont Terri Rock Laboratory. *Environmental Earth Sciences*, **2013**, 70, 3363-3380	2.9	19
111	Catchments as reactors: a comprehensive approach for water fluxes and solute turnover. *Environmental Earth Sciences*, **2013**, 69, 317-333	2.9	59
110	A coupled surface/subsurface flow model accounting for air entrapment and air pressure counterflow. *Environmental Earth Sciences*, **2013**, 69, 395-414	2.9	25
109	A data exploration framework for validation and setup of hydrological models. *Environmental Earth Sciences*, **2013**, 69, 469-477	2.9	26
108	TEODOOR: a distributed geodata infrastructure for terrestrial observation data. *Environmental Earth Sciences*, **2013**, 69, 507-521	2.9	22
107	Groundwater flow model of the Pipiripau watershed, Federal District of Brazil. *Environmental Earth Sciences*, **2013**, 69, 617-631	2.9	7
106	Non-equilibrium thermochemical heat storage in porous media: Part 1 □Conceptual model. *Energy*, **2013**, 60, 254-270	7.9	39
105	Geothermal Energy: a glimpse at the state of the field and an introduction to the journal. *Geothermal Energy*, **2013**, 1,	3.3	9

104	Numerical analysis of the groundwater regime in the western Dead Sea escarpment, Israel + West Bank. *Environmental Earth Sciences*, **2013**, 69, 571-585	2.9	34
103	TEODOOR - A Spatial Data Infrastructure for terrestrial observation data **2013**,		2
102	Non-equilibrium thermo-chemical heat storage in porous media: Part 2 – A 1D computational model for a calcium hydroxide reaction system. *Energy*, **2013**, 60, 271-282	7.9	35
101	A Benchmark Study on Non-isothermal Compositional Fluid Flow. *Energy Procedia*, **2013**, 37, 3901-3910	2.3	5
100	A mixed finite element discretization scheme for a concrete carbonation model with concentration-dependent porosity. *Journal of Computational and Applied Mathematics*, **2013**, 246, 74-85	2.4	14
99	Characterization of CO2 Leakage into the Freshwater Body. *Energy Procedia*, **2013**, 40, 481-489	2.3	1
98	A Dynamic Flow Simulation Code Intercomparison based on the Revised Static Model of the Ketzin Pilot Site. *Energy Procedia*, **2013**, 40, 418-427	2.3	32
97	Reactive transport modeling of the clogging process at Maqarin natural analogue site. *Physics and Chemistry of the Earth*, **2013**, 64, 21-31	3	29
96	Coupled multiphase flow and elasto-plastic modelling of in-situ gas injection experiments in saturated claystone (Mont Terri Rock Laboratory). *Engineering Geology*, **2013**, 157, 55-68	6	32
95	Modelling of fractured carbonate reservoirs: outline of a novel technique via a case study from the Molasse Basin, southern Bavaria, Germany. *Environmental Earth Sciences*, **2013**, 70, 3585-3602	2.9	49
94	Automatic time stepping with Newton-Raphson method for two-phase fluid flow in porous media **2013**,		1
93	Visual data exploration for hydrological analysis. *Environmental Earth Sciences*, **2012**, 65, 1395-1403	2.9	30
92	The IWAS-ToolBox: Software coupling for an integrated water resources management. *Environmental Earth Sciences*, **2012**, 65, 1367-1380	2.9	40
91	Coupling hydrogeological with surface runoff model in a Poltva case study in Western Ukraine. *Environmental Earth Sciences*, **2012**, 65, 1439-1457	2.9	31
90	OpenGeoSys: an open-source initiative for numerical simulation of thermo-hydro-mechanical/chemical (THM/C) processes in porous media. *Environmental Earth Sciences*, **2012**, 67, 589-599	2.9	392
89	A systematic benchmarking approach for geologic CO2 injection and storage. *Environmental Earth Sciences*, **2012**, 67, 613-632	2.9	33
88	Thermo-hydro-mechanical modeling of carbon dioxide injection for enhanced gas-recovery (CO2-EGR): a benchmarking study for code comparison. *Environmental Earth Sciences*, **2012**, 67, 549-561	2.9	47
87	Evaluation of thermal equations of state for CO2 in numerical simulations. *Environmental Earth Sciences*, **2012**, 67, 481-495	2.9	23

86	CLEAN: project overview on CO2 large-scale enhanced gas recovery in the Altmark natural gas field (Germany). *Environmental Earth Sciences*, **2012**, 67, 311-321	2.9	47
85	Non-isothermal, compressible gas flow for the simulation of an enhanced gas recovery application. *Journal of Computational and Applied Mathematics*, **2012**, 236, 4933-4943	2.4	16
84	Saltwater intrusion modeling: Verification and application to an agricultural coastal arid region in Oman. *Journal of Computational and Applied Mathematics*, **2012**, 236, 4798-4809	2.4	35
83	Numerical simulation of two-phase flow in deformable porous media: Application to carbon dioxide storage in the subsurface. *Mathematics and Computers in Simulation*, **2012**, 82, 1919-1935	3.3	18
82	Groundwater deterioration in Nankou suburban area of Beijing: data assessment and remediation scenarios. *Environmental Earth Sciences*, **2012**, 67, 1573-1586	2.9	18
81	Heat Transport. *Lecture Notes in Computational Science and Engineering*, **2012**, 89-105	0.3	1
80	Gas Flow. *Lecture Notes in Computational Science and Engineering*, **2012**, 149-160	0.3	
79	A geochemical transport model for thermo-hydro-chemical (THC) coupled processes with saline water. *Water Resources Research*, **2011**, 47,	5.4	11
78	Are upwind techniques in multi-phase flow models necessary?. *Journal of Computational Physics*, **2011**, 230, 8304-8312	4.1	18
77	Front Tracking Using a Hybrid Analytical Finite Element Approach for Two-Phase Flow Applied to Supercritical CO2 Replacing Brine in a Heterogeneous Reservoir and Caprock. *Transport in Porous Media*, **2011**, 90, 545-573	3.1	10
76	Non-isothermal flow in low permeable porous media: a comparison of Richards and two-phase flow approaches. *Environmental Earth Sciences*, **2011**, 62, 1197-1207	2.9	49
75	Development of a 3D groundwater model based on scarce data: the Wadi Kafrein catchment/Jordan. *Environmental Earth Sciences*, **2011**, 64, 771-785	2.9	20
74	Groundwater drawdown at Nankou site of Beijing Plain: model development and calibration. *Environmental Earth Sciences*, **2011**, 64, 1323-1333	2.9	21
73	Accuracy of numerical simulations of contaminant transport in heterogeneous aquifers: A comparative study. *Advances in Water Resources*, **2011**, 34, 47-61	4.7	35
72	The fluidal interface is where the action is in CO2 sequestration and storage: Hydromechanical analysis of mechanical failure. *Energy Procedia*, **2011**, 4, 3691-3698	2.3	7
71	Non-isothermal effects on two-phase flow in porous medium: CO2 disposal into a saline aquifer. *Energy Procedia*, **2011**, 4, 3889-3895	2.3	10
70	Numerical simulation of non-isothermal compositional gas flow: Application to carbon dioxide injection into gas reservoirs. *Energy*, **2011**, 36, 3446-3458	7.9	51
69	Coupled 3-D thermo-hydro-mechanical analysis of geotechnological in situ tests. *International Journal of Rock Mechanics and Minings Sciences*, **2011**, 48, 1-15	6	15

68	Modeling Soil-Coupled Water Uptake of Multiple Root Systems with Automatic Time Stepping. *Vadose Zone Journal*, **2011**, 10, 727-735	2.7	11
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