

Sebastia Olivella

List of Publications by Year in descending order

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Version: 2024-02-01

53
papers

2,644
citations

257101

24
h-index

182168

51
g-index

54
all docs

54
docs citations

54
times ranked

1826
citing authors

#	ARTICLE	IF	CITATIONS
1	Nonisothermal multiphase flow of brine and gas through saline media. <i>Transport in Porous Media</i> , 1994, 15, 271-293.	1.2	331
2	A microstructurally based effective stress for unsaturated soils. <i>Geotechnique</i> , 2010, 60, 913-925.	2.2	312
3	THM-coupled finite element analysis of frozen soil: formulation and application. <i>Geotechnique</i> , 2009, 59, 159-171.	2.2	196
4	A full-scale in situ heating test for high-level nuclear waste disposal: observations, analysis and interpretation. <i>Geotechnique</i> , 2009, 59, 377-399.	2.2	188
5	Coupled hydromechanical modeling of CO2 sequestration in deep saline aquifers. <i>International Journal of Greenhouse Gas Control</i> , 2010, 4, 910-919.	2.3	139
6	Gas flow through clay barriers. <i>Geotechnique</i> , 2008, 58, 157-176.	2.2	116
7	Liquid CO2 injection for geological storage in deep saline aquifers. <i>International Journal of Greenhouse Gas Control</i> , 2013, 14, 84-96.	2.3	116
8	Long term impacts of cold CO2 injection on the caprock integrity. <i>International Journal of Greenhouse Gas Control</i> , 2014, 24, 1-13.	2.3	93
9	Vapour Transport in Low Permeability Unsaturated Soils with Capillary Effects. <i>Transport in Porous Media</i> , 2000, 40, 219-241.	1.2	92
10	Effects of CO2 Compressibility on CO2 Storage in Deep Saline Aquifers. <i>Transport in Porous Media</i> , 2010, 85, 619-639.	1.2	84
11	Induced seismicity in geologic carbon storage. <i>Solid Earth</i> , 2019, 10, 871-892.	1.2	74
12	Coupled Thermo-Hydro-Mechanical and Chemical Analysis of Expansive Clay Subjected to Heating and Hydration. <i>Transport in Porous Media</i> , 2007, 66, 341-372.	1.2	70
13	Fully Coupled Thermo-Hydro-Mechanical Double-Porosity Formulation for Unsaturated Soils. <i>International Journal of Geomechanics</i> , 2016, 16, .	1.3	61
14	THM analysis of a large-scale heating test incorporating material fabric changes. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2012, 36, 391-421.	1.7	56
15	Hydromechanical characterization of CO2 injection sites. <i>International Journal of Greenhouse Gas Control</i> , 2013, 19, 665-677.	2.3	56
16	Dynamics of water vapor flux and water separation processes during evaporation from a salty dry soil. <i>Journal of Hydrology</i> , 2011, 396, 215-220.	2.3	53
17	Rapid drawdown in slopes and embankments. <i>Water Resources Research</i> , 2008, 44, .	1.7	51
18	Modeling evaporation processes in a saline soil from saturation to oven dry conditions. <i>Hydrology and Earth System Sciences</i> , 2011, 15, 2077-2089.	1.9	49

#	ARTICLE	IF	CITATIONS
19	Geomechanical stability of the caprock during CO ₂ sequestration in deep saline aquifers. <i>Energy Procedia</i> , 2011, 4, 5306-5313.	1.8	35
20	Multiphase flow and reactive transport model in vadose tailings. <i>Applied Geochemistry</i> , 2009, 24, 1238-1250.	1.4	34
21	Implementation algorithm of a generalised plasticity model for swelling clays. <i>Computers and Geotechnics</i> , 2008, 35, 860-871.	2.3	33
22	Analysis and modelling of longitudinal deformation profiles of tunnels excavated in strain-softening time-dependent rock masses. <i>Computers and Geotechnics</i> , 2020, 125, 103643.	2.3	32
23	Gas injection tests on sand/bentonite mixtures in the laboratory. Experimental results and numerical modelling. <i>Physics and Chemistry of the Earth</i> , 2008, 33, S237-S247.	1.2	27
24	A constitutive law for rock joints considering the effects of suction and roughness on strength parameters. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2013, 60, 333-344.	2.6	27
25	Gas flow in anisotropic claystone: modelling triaxial experiments. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2013, 37, 2239-2256.	1.7	25
26	Deformation induced by dissolution of salts in porous media. <i>Physics and Chemistry of the Earth</i> , 2008, 33, S436-S443.	1.2	23
27	A hydro-geochemical analysis of the saturation process with salt water of a bentonite crushed granite rock mixture in an engineered nuclear barrier. <i>Engineering Geology</i> , 2005, 81, 227-245.	2.9	22
28	A review of Beliche Dam. <i>Geotechnique</i> , 2005, 55, 267-285.	2.2	22
29	Swelling in clayey soils induced by the presence of salt crystals. <i>Applied Clay Science</i> , 2010, 47, 105-112.	2.6	20
30	Mass balance errors when solving the convective form of the transport equation in transient flow problems. <i>Water Resources Research</i> , 2004, 40, .	1.7	18
31	Osmosis-induced swelling of Eurobitum bituminized radioactive waste in constant total stress conditions. <i>Journal of Nuclear Materials</i> , 2010, 406, 304-316.	1.3	17
32	Modelling the response of Lechago earth and rockfill dam. <i>Geotechnique</i> , 2011, 61, 387-407.	2.2	17
33	Geomechanical Response of Fractured Reservoirs. <i>Fluids</i> , 2018, 3, 70.	0.8	15
34	3D modelling of strip reinforced MSE walls. <i>Acta Geotechnica</i> , 2021, 16, 711-730.	2.9	15
35	Porosity Variations in Saline Media Induced by Temperature Gradients: Experimental Evidences and Modelling. <i>Transport in Porous Media</i> , 2011, 90, 763-777.	1.2	14
36	Deformation and Flow Driven by Osmotic Processes in Porous Materials: Application to Bituminised Waste Materials. <i>Transport in Porous Media</i> , 2011, 86, 635-662.	1.2	13

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37	Hydro-mechanical modelling and analysis of multi-stage tunnel excavations using a smoothed excavation method. <i>Computers and Geotechnics</i> , 2021, 135, 104150.	2.3	12
38	Applications of multiphysical geomechanics in underground nuclear waste storage. <i>European Journal of Environmental and Civil Engineering</i> , 2009, 13, 937-962.	1.0	11
39	Thermo-hydraulic behaviour of the vadose zone in sulphide tailings at Iberian Pyrite Belt: Waste characterization, monitoring and modelling. <i>Engineering Geology</i> , 2013, 165, 154-170.	2.9	10
40	Osmosis-induced water uptake by Eurobitum bituminized radioactive waste and pressure development in constant volume conditions. <i>Journal of Nuclear Materials</i> , 2013, 432, 348-365.	1.3	10
41	Deformation of bitumen based porous material: Experimental and numerical analysis. <i>Journal of Nuclear Materials</i> , 2010, 404, 144-153.	1.3	8
42	Coupled solid-fluid response of deep tunnels excavated in saturated rock masses with a time-dependent plastic behaviour. <i>Applied Mathematical Modelling</i> , 2021, 100, 508-535.	2.2	8
43	Coupled THM modelling of engineered barriers for the final disposal of spent nuclear fuel isolation. <i>Geological Society Special Publication</i> , 2017, 443, 235-251.	0.8	7
44	Modelling engineered barriers for spent nuclear fuel repository using a double-structure model for pellets. <i>Environmental Geotechnics</i> , 2020, 7, 72-94.	1.3	7
45	Numerical analysis of landslides caused by rainfall in a reduced physical slope model. <i>European Journal of Environmental and Civil Engineering</i> , 2021, 25, 1449-1470.	1.0	6
46	Thermo-hydro-mechanical model of the Canister Retrieval Test. <i>Physics and Chemistry of the Earth</i> , 2011, 36, 1806-1816.	1.2	5
47	Effect of thermo-coupled processes on the behaviour of a clay barrier submitted to heating and hydration. <i>Anais Da Academia Brasileira De Ciencias</i> , 2010, 82, 153-168.	0.3	4
48	Analysis of the Thmc Behaviour of Compacted Swelling Clay for Radioactive Waste Isolation. <i>Elsevier Geo-Engineering Book Series</i> , 2004, 2, 317-322.	0.0	3
49	Simulation of a hydromechanical mock-up test on GMZ01 bentonite with double structure approach. <i>European Journal of Environmental and Civil Engineering</i> , 2018, 22, s364-s380.	1.0	3
50	THM Analysis of a Heating Test in a Fractured Tuff. <i>Elsevier Geo-Engineering Book Series</i> , 2004, 2, 181-186.	0.0	2
51	Two-phase flow effects on the CO ₂ injection pressure evolution and implications for the caprock geomechanical stability. <i>E3S Web of Conferences</i> , 2016, 9, 04007.	0.2	1
52	THMC coupling in partially saturated geomaterials. <i>Revue Européenne De Génie Civil</i> , 2005, 9, 747-765.	0.0	1
53	Formulation for the THMC Analysis of Clayey Materials: Application to Radioactive Waste Disposal. , 2008, , .		0