

ChloÃ© Arson

List of Publications by Year in descending order

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Version: 2024-02-01

58
papers

993
citations

430754

18
h-index

501076

28
g-index

60
all docs

60
docs citations

60
times ranked

680
citing authors

#	ARTICLE	IF	CITATIONS
1	A thermo-mechanical damage model for rock stiffness during anisotropic crack opening and closure. <i>Acta Geotechnica</i> , 2014, 9, 847-867.	2.9	61
2	Discrete element modeling of shielding and size effects during single particle crushing. <i>Computers and Geotechnics</i> , 2016, 78, 227-236.	2.3	59
3	Influence of damage on pore size distribution and permeability of rocks. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2013, 37, 810-831.	1.7	53
4	DEM analysis on the role of aggregates on concrete strength. <i>Computers and Geotechnics</i> , 2020, 119, 103290.	2.3	51
5	Micro-macro approach of salt viscous fatigue under cyclic loading. <i>Mechanics of Materials</i> , 2016, 93, 13-31.	1.7	44
6	Û-STOCK, a powerful tool of thermohydrromechanical behaviour and damage modelling of unsaturated porous media. <i>Computers and Geotechnics</i> , 2008, 35, 890-915.	2.3	36
7	Thermo-hydro-mechanical modeling of damage in unsaturated porous media: Theoretical framework and numerical study of the EDZ. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2012, 36, 272-306.	1.7	36
8	DEM modelling of sequential fragmentation of zeolite granules under oedometric compression based on XCT observations. <i>Powder Technology</i> , 2019, 347, 66-75.	2.1	36
9	Fluid-driven transition from damage to fracture in anisotropic porous media: a multi-scale XFEM approach. <i>Acta Geotechnica</i> , 2020, 15, 113-144.	2.9	36
10	A Model of Damage and Healing Coupling Halite Thermo-mechanical Behavior to Microstructure Evolution. <i>Geotechnical and Geological Engineering</i> , 2015, 33, 389-410.	0.8	31
11	Micro-macro mechanics of damage and healing in rocks. <i>Open Geomechanics</i> , 0, 2, 1-41.	0.0	29
12	Retention and permeability properties of damaged porous rocks. <i>Computers and Geotechnics</i> , 2013, 48, 272-282.	2.3	27
13	ANISOTROPIC DAMAGE MODELS FOR GEOMATERIALS: THEORETICAL AND NUMERICAL CHALLENGES. <i>International Journal of Computational Methods</i> , 2014, 11, 1342007.	0.8	26
14	Energy distribution during the quasi-static confined comminution of granular materials. <i>Acta Geotechnica</i> , 2018, 13, 1075-1083.	2.9	26
15	Anisotropic nonlocal damage model for materials with intrinsic transverse isotropy. <i>International Journal of Solids and Structures</i> , 2018, 139-140, 29-42.	1.3	25
16	On the definition of damage in time-dependent healing models for salt rock. <i>Geotechnique Letters</i> , 2012, 2, 67-71.	0.6	21
17	A fully coupled damage-plasticity model for unsaturated geomaterials accounting for the ductile-brittle transition in drying clayey soils. <i>International Journal of Solids and Structures</i> , 2016, 91, 102-114.	1.3	21
18	Computational model coupling mode II discrete fracture propagation with continuum damage zone evolution. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2017, 41, 223-250.	1.7	21

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19	Micromechanics based discrete damage model with multiple non-smooth yield surfaces: Theoretical formulation, numerical implementation and engineering applications. <i>International Journal of Damage Mechanics</i> , 2018, 27, 611-639.	2.4	19
20	Numerical study of a thermo-hydro-mechanical damage model for unsaturated porous media. <i>Annals of Solid and Structural Mechanics</i> , 2010, 1, 59-78.	0.5	18
21	Tensile strength of calcite/HMWM and silica/HMWM interfaces: A Molecular Dynamics analysis. <i>Construction and Building Materials</i> , 2020, 251, 118925.	3.2	18
22	On damage modelling in unsaturated clay rocks. <i>Physics and Chemistry of the Earth</i> , 2008, 33, S407-S415.	1.2	16
23	Chemomechanical evolution of pore space in carbonate microstructures upon dissolution: Linking pore geometry to bulk elasticity. <i>Journal of Geophysical Research: Solid Earth</i> , 2015, 120, 6878-6894.	1.4	16
24	Discrete equivalent wing crack based damage model for brittle solids. <i>International Journal of Solids and Structures</i> , 2017, 110-111, 279-293.	1.3	16
25	Mechanisms of Anisotropy in Salt Rock Upon Microcrack Propagation. <i>Rock Mechanics and Rock Engineering</i> , 2020, 53, 3185-3205.	2.6	16
26	A thermodynamically consistent framework for saturated viscoplastic rock-materials subject to damage. <i>Mechanics Research Communications</i> , 2012, 45, 15-21.	1.0	15
27	Prediction of viscous cracking and cyclic fatigue of salt polycrystals using a joint-enriched finite element model. <i>Mechanics of Materials</i> , 2016, 103, 28-43.	1.7	14
28	Mineral Weathering and Bedrock Weakening: Modeling Microscale Bedrock Damage Under Biotite Weathering. <i>Journal of Geophysical Research F: Earth Surface</i> , 2019, 124, 2623-2646.	1.0	14
29	An isotropic self-consistent homogenization scheme for chemo-mechanical healing driven by pressure solution in halite. <i>International Journal of Solids and Structures</i> , 2019, 161, 96-110.	1.3	13
30	A mixed damage model for unsaturated porous media. <i>Comptes Rendus - Mecanique</i> , 2009, 337, 68-74.	2.1	12
31	Generalized stress variables in Continuum Damage Mechanics. <i>Mechanics Research Communications</i> , 2014, 60, 81-84.	1.0	12
32	Micro-Macro Analysis and Phenomenological Modelling of Salt Viscous Damage and Application to Salt Caverns. <i>Rock Mechanics and Rock Engineering</i> , 2015, 48, 2567-2580.	2.6	12
33	Mechanistic Analysis of Rock Damage Anisotropy and Rotation Around Circular Cavities. <i>Rock Mechanics and Rock Engineering</i> , 2015, 48, 2283-2299.	2.6	11
34	Analysis of unsaturated materials hydration incorporating the effect of thermo-osmotic flow. <i>Geomechanics for Energy and the Environment</i> , 2016, 6, 101-115.	1.2	11
35	Modeling root system growth around obstacles. <i>Scientific Reports</i> , 2020, 10, 15868.	1.6	10
36	XFEM to couple nonlocal micromechanics damage with discrete mode I cohesive fracture. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 357, 112617.	3.4	9

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37	Fracture-Induced Anisotropy of the Stress–Strain Response of Shale at Multiple Scales. <i>International Journal of Geomechanics</i> , 2017, 17, .	1.3	8
38	Nonlocal enrichment of a micromechanical damage model with tensile softening: Advantages and limitations. <i>Computers and Geotechnics</i> , 2018, 94, 196-206.	2.3	8
39	Substrate composition directs slime molds behavior. <i>Scientific Reports</i> , 2019, 9, 15444.	1.6	7
40	Self-consistent micromechanical approach for damage accommodation in rock-like polycrystalline materials. <i>International Journal of Damage Mechanics</i> , 2019, 28, 134-161.	2.4	7
41	Substrate and cell fusion influence on slime mold network dynamics. <i>Scientific Reports</i> , 2021, 11, 1498.	1.6	7
42	Imaging local soil kinematics during the first days of maize root growth in sand. <i>Scientific Reports</i> , 2021, 11, 22262.	1.6	7
43	Probabilistic optimization of a continuum mechanics model to predict differential stress-induced damage in claystone. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2014, 68, 136-149.	2.6	6
44	Micromechanical modeling for rate–dependent behavior of salt rock under cyclic loading. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2021, 45, 28-44.	1.7	6
45	Coupled Brittle and Viscous Micromechanisms Produce Semibrittle Flow, Grain–Boundary Sliding, and Anelasticity in Salt–Rock. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2020JB021261.	1.4	6
46	Probabilistic calibration of a damage rock mechanics model. <i>Geotechnique Letters</i> , 2014, 4, 17-21.	0.6	5
47	Simulation of salt-cavity healing based on a micro–macro model of pressure solution. <i>Petroleum Geoscience</i> , 2019, 25, 251-257.	0.9	5
48	Bayesian paradigm to assess rock compression damage models. <i>Environmental Geotechnics</i> , 2015, 2, 155-165.	1.3	4
49	Fabric evolution and crack propagation in salt during consolidation and cyclic compression tests. <i>Acta Geotechnica</i> , 2021, 16, 1679-1697.	2.9	4
50	Finite Element model of concrete repaired by High Molecular Weight Methacrylate (HMWM). <i>Engineering Structures</i> , 2021, 233, 111860.	2.6	4
51	Anisotropy and Microcrack Propagation Induced by Weathering, Regional Stresses and Topographic Stresses. <i>Journal of Geophysical Research: Solid Earth</i> , 2022, 127, .	1.4	4
52	Modeling the Influence of Thermo-Mechanical Crack Opening and Closure on Rock Stiffness. , 2013, , .		3
53	USING A GEO-MECHANICAL DAMAGE MODEL TO ASSESS PERMEABILITY IN CRACKED POROUS MEDIA: INTERNAL LENGTH PARAMETER ISSUES. <i>Special Topics and Reviews in Porous Media</i> , 2012, 3, 69-77.	0.6	3
54	Self-consistent approach for modeling coupled elastic and visco-plastic processes induced by dislocation and pressure solution. <i>International Journal of Solids and Structures</i> , 2021, 238, 111376.	1.3	3

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55	Deformation and failure mechanisms of granular soil around pressurised shallow cavities. <i>Geotechnique</i> , 2023, 73, 265-280.	2.2	2
56	Assessing static liquefaction triggering considering fabric anisotropy effects under the ACST framework. <i>Computers and Geotechnics</i> , 2022, 148, 104796.	2.3	2
57	Molecular Dynamics Analysis of Silica/PMMA Interface Shear Behavior. <i>Polymers</i> , 2022, 14, 1039.	2.0	1
58	Homogenization of cemented soil stiffness and application to the study of arching effects between jet-grouted columns. <i>KSCE Journal of Civil Engineering</i> , 2014, 18, 2072-2079.	0.9	0