# ChloÃ© Arson

List of Publications by Year
in descending order

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| 58 | 993 | 430754 | 501076 |
|---|---|---|---|
| papers | citations | 18 h-index | 28 g-index |

| 60 | 60 | 60 | 680 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Deformation and failure mechanisms of granular soil around pressurised shallow cavities. Geotechnique, 2023, 73, 265-280. | 2.2 | 2 |
| 2 | Molecular Dynamics Analysis of Silica/PMMA Interface Shear Behavior. Polymers, 2022, 14, 1039. | 2.0 | 1 |
| 3 | Assessing static liquefaction triggering considering fabric anisotropy effects under the ACST framework. Computers and Geotechnics, 2022, 148, 104796. | 2.3 | 2 |
| 4 | Anisotropy and Microcrack Propagation Induced by Weathering, Regional Stresses and Topographic Stresses. Journal of Geophysical Research: Solid Earth, 2022, 127, . | 1.4 | 4 |
| 5 | Micromechanical modeling for rateâ€dependent behavior of salt rock under cyclic loading. International Journal for Numerical and Analytical Methods in Geomechanics, 2021, 45, 28-44. | 1.7 | 6 |
| 6 | Fabric evolution and crack propagation in salt during consolidation and cyclic compression tests. Acta Geotechnica, 2021, 16, 1679-1697. | 2.9 | 4 |
| 7 | Coupled Brittle and Viscous Micromechanisms Produce Semibrittle Flow, Grainâ€Boundary Sliding, and Anelasticity in Saltâ€Rock. Journal of Geophysical Research: Solid Earth, 2021, 126, e2020JB021261. | 1.4 | 6 |
| 8 | Finite Element model of concrete repaired by High Molecular Weight Methacrylate (HMWM). Engineering Structures, 2021, 233, 111860. | 2.6 | 4 |
| 9 | Substrate and cell fusion influence on slime mold network dynamics. Scientific Reports, 2021, 11, 1498. | 1.6 | 7 |
| 10 | Imaging local soil kinematics during the first days of maize root growth in sand. Scientific Reports, 2021, 11, 22262. | 1.6 | 7 |
| 11 | Self-consistent approach for modeling coupled elastic and visco-plastic processes induced by dislocation and pressure solution. International Journal of Solids and Structures, 2021, 238, 111376. | 1.3 | 3 |
| 12 | Fluid-driven transition from damage to fracture in anisotropic porous media: a multi-scale XFEM approach. Acta Geotechnica, 2020, 15, 113-144. | 2.9 | 36 |
| 13 | DEM analysis on the role of aggregates on concrete strength. Computers and Geotechnics, 2020, 119, 103290. | 2.3 | 51 |
| 14 | Modeling root system growth around obstacles. Scientific Reports, 2020, 10, 15868. | 1.6 | 10 |
| 15 | Tensile strength of calcite/HMWM and silica/HMWM interfaces: A Molecular Dynamics analysis. Construction and Building Materials, 2020, 251, 118925. | 3.2 | 18 |
| 16 | Mechanisms of Anisotropy in Salt Rock Upon Microcrack Propagation. Rock Mechanics and Rock Engineering, 2020, 53, 3185-3205. | 2.6 | 16 |
| 17 | XFEM to couple nonlocal micromechanics damage with discrete mode I cohesive fracture. Computer Methods in Applied Mechanics and Engineering, 2019, 357, 112617. | 3.4 | 9 |
| 18 | DEM modelling of sequential fragmentation of zeolite granules under oedometric compression based on XCT observations. Powder Technology, 2019, 347, 66-75. | 2.1 | 36 |

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|---|---|---|---|
| 19 | Substrate composition directs slime molds behavior. Scientific Reports, 2019, 9, 15444. | 1.6 | 7 |
| 20 | Mineral Weathering and Bedrock Weakening: Modeling Microscale Bedrock Damage Under Biotite Weathering. Journal of Geophysical Research F: Earth Surface, 2019, 124, 2623-2646. | 1.0 | 14 |
| 21 | Simulation of salt-cavity healing based on a microâ€“macro model of pressure solution. Petroleum Geoscience, 2019, 25, 251-257. | 0.9 | 5 |
| 22 | An isotropic self-consistent homogenization scheme for chemo-mechanical healing driven by pressure solution in halite. International Journal of Solids and Structures, 2019, 161, 96-110. | 1.3 | 13 |
| 23 | Self-consistent micromechanical approach for damage accommodation in rock-like polycrystalline materials. International Journal of Damage Mechanics, 2019, 28, 134-161. | 2.4 | 7 |
| 24 | Anisotropic nonlocal damage model for materials with intrinsic transverse isotropy. International Journal of Solids and Structures, 2018, 139-140, 29-42. | 1.3 | 25 |
| 25 | Energy distribution during the quasi-static confined comminution of granular materials. Acta Geotechnica, 2018, 13, 1075-1083. | 2.9 | 26 |
| 26 | Micromechanics based discrete damage model with multiple non-smooth yield surfaces: Theoretical formulation, numerical implementation and engineering applications. International Journal of Damage Mechanics, 2018, 27, 611-639. | 2.4 | 19 |
| 27 | Nonlocal enrichment of a micromechanical damage model with tensile softening: Advantages and limitations. Computers and Geotechnics, 2018, 94, 196-206. | 2.3 | 8 |
| 28 | Discrete equivalent wing crack based damage model for brittle solids. International Journal of Solids and Structures, 2017, 110-111, 279-293. | 1.3 | 16 |
| 29 | Fracture-Induced Anisotropy of the Stressâ€“Strain Response of Shale at Multiple Scales. International Journal of Geomechanics, 2017, 17, . | 1.3 | 8 |
| 30 | Computational model coupling mode II discrete fracture propagation with continuum damage zone evolution. International Journal for Numerical and Analytical Methods in Geomechanics, 2017, 41, 223-250. | 1.7 | 21 |
| 31 | Analysis of unsaturated materials hydration incorporating the effect of thermo-osmotic flow. Geomechanics for Energy and the Environment, 2016, 6, 101-115. | 1.2 | 11 |
| 32 | Prediction of viscous cracking and cyclic fatigue of salt polycrystals using a joint-enriched finite element model. Mechanics of Materials, 2016, 103, 28-43. | 1.7 | 14 |
| 33 | Discrete element modeling of shielding and size effects during single particle crushing. Computers and Geotechnics, 2016, 78, 227-236. | 2.3 | 59 |
| 34 | A fully coupled damage-plasticity model for unsaturated geomaterials accounting for the ductileâ€“brittle transition in drying clayey soils. International Journal of Solids and Structures, 2016, 91, 102-114. | 1.3 | 21 |
| 35 | Microâ€“macro approach of salt viscous fatigue under cyclic loading. Mechanics of Materials, 2016, 93, 13-31. | 1.7 | 44 |
| 36 | Micro-Macro Analysis and Phenomenological Modelling of Salt Viscous Damage and Application to Salt Caverns. Rock Mechanics and Rock Engineering, 2015, 48, 2567-2580. | 2.6 | 12 |

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|---|---|---|---|
| 37 | Chemomechanical evolution of pore space in carbonate microstructures upon dissolution: Linking pore geometry to bulk elasticity. Journal of Geophysical Research: Solid Earth, 2015, 120, 6878-6894. | 1.4 | 16 |
| 38 | Bayesian paradigm to assess rock compression damage models. Environmental Geotechnics, 2015, 2, 155-165. | 1.3 | 4 |
| 39 | Mechanistic Analysis of Rock Damage Anisotropy and Rotation Around Circular Cavities. Rock Mechanics and Rock Engineering, 2015, 48, 2283-2299. | 2.6 | 11 |
| 40 | A Model of Damage and Healing Coupling Halite Thermo-mechanical Behavior to Microstructure Evolution. Geotechnical and Geological Engineering, 2015, 33, 389-410. | 0.8 | 31 |
| 41 | ANISOTROPIC DAMAGE MODELS FOR GEOMATERIALS: THEORETICAL AND NUMERICAL CHALLENGES. International Journal of Computational Methods, 2014, 11, 1342007. | 0.8 | 26 |
| 42 | Probabilistic calibration of a damage rock mechanics model. Geotechnique Letters, 2014, 4, 17-21. | 0.6 | 5 |
| 43 | Homogenization of cemented soil stiffness and application to the study of arching effects between jet-grouted columns. KSCE Journal of Civil Engineering, 2014, 18, 2072-2079. | 0.9 | 0 |
| 44 | A thermo-mechanical damage model for rock stiffness during anisotropic crack opening and closure. Acta Geotechnica, 2014, 9, 847-867. | 2.9 | 61 |
| 45 | Probabilistic optimization of a continuum mechanics model to predict differential stress-induced damage in claystone. International Journal of Rock Mechanics and Minings Sciences, 2014, 68, 136-149. | 2.6 | 6 |
| 46 | Generalized stress variables in Continuum Damage Mechanics. Mechanics Research Communications, 2014, 60, 81-84. | 1.0 | 12 |
| 47 | Influence of damage on pore size distribution and permeability of rocks. International Journal for Numerical and Analytical Methods in Geomechanics, 2013, 37, 810-831. | 1.7 | 53 |
| 48 | Retention and permeability properties of damaged porous rocks. Computers and Geotechnics, 2013, 48, 272-282. | 2.3 | 27 |
| 49 | Modeling the Influence of Thermo-Mechanical Crack Opening and Closure on Rock Stiffness. , 2013, , . | | 3 |
| 50 | On the definition of damage in time-dependent healing models for salt rock. Geotechnique Letters, 2012, 2, 67-71. | 0.6 | 21 |
| 51 | A thermodynamically consistent framework for saturated viscoplastic rock-materials subject to damage. Mechanics Research Communications, 2012, 45, 15-21. | 1.0 | 15 |
| 52 | Thermoâ€hydroâ€mechanical modeling of damage in unsaturated porous media: Theoretical framework and numerical study of the EDZ. International Journal for Numerical and Analytical Methods in Geomechanics, 2012, 36, 272-306. | 1.7 | 36 |
| 53 | USING A GEO-MECHANICAL DAMAGE MODEL TO ASSESS PERMEABILITY IN CRACKED POROUS MEDIA: INTERNAL LENGTH PARAMETER ISSUES. Special Topics and Reviews in Porous Media, 2012, 3, 69-77. | 0.6 | 3 |
| 54 | Numerical study of a thermo-hydro-mechanical damage model for unsaturated porous media. Annals of Solid and Structural Mechanics, 2010, 1, 59-78. | 0.5 | 18 |

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|---|---|---|---|
| 55 | A mixed damage model for unsaturated porous media. Comptes Rendus - Mecanique, 2009, 337, 68-74. | 2.1 | 12 |
| 56 | Î¸-STOCK, a powerful tool of thermohydromechanical behaviour and damage modelling of unsaturated porous media. Computers and Geotechnics, 2008, 35, 890-915. | 2.3 | 36 |
| 57 | On damage modelling in unsaturated clay rocks. Physics and Chemistry of the Earth, 2008, 33, S407-S415. | 1.2 | 16 |
| 58 | Micro-macro mechanics of damage and healing in rocks. Open Geomechanics, 0, 2, 1-41. | 0.0 | 29 |