Wanqing Shen

List of Publications by Year
in descending order

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68 papers	1,161 citations	361413 20 h-index	454955 30 g-index
69 all docs	69 docs citations	69 times ranked	531 citing authors

#	Article	IF	Citations
1	A microâ€“macro model for clayey rocks with a plastic compressible porous matrix. International Journal of Plasticity, 2012, 36, 64-85.	8.8	130
2	A closed-form three scale model for ductile rocks with a plastically compressible porous matrix. Mechanics of Materials, 2013, 59, 73-86.	3.2	70
3	An incremental micro-macro model for porous geomaterials with double porosity and inclusion. International Journal of Plasticity, 2016, 83, 37-54.	8.8	49
4	A new bond model in peridynamics theory for progressive failure in cohesive brittle materials. Engineering Fracture Mechanics, 2020, 223, 106767.	4.3	43
5	Comparative mechanical behaviors of four fiber-reinforced sand cemented by microbially induced carbonate precipitation. Bulletin of Engineering Geology and the Environment, 2020, 79, 3075-3086.	3.5	41
6	Approximate criteria for ductile porous materials having a Green type matrix: Application to double porous media. Computational Materials Science, 2012, 62, 189-194.	3.0	36
7	Macroscopic criterion for ductile porous materials based on a statically admissible microscopic stress field. International Journal of Plasticity, 2015, 70, 60-76.	8.8	35
8	Approximate macroscopic yield criteria for Drucker-Prager type solids with spheroidal voids. International Journal of Plasticity, 2017, 99, 221-247.	8.8	35
9	A novel FFT-based phase field model for damage and cracking behavior of heterogeneous materials. International Journal of Plasticity, 2020, 133, 102786.	8.8	35
10	Effects of inclusions and pores on plastic and viscoplastic deformation of rock-like materials. International Journal of Plasticity, 2018, 108, 107-124.	8.8	33
11	Shakedown of porous materials. International Journal of Plasticity, 2017, 95, 123-141.	8.8	29
12	Effective strength of saturated double porous media with a Druckerâ€“Prager solid phase. International Journal for Numerical and Analytical Methods in Geomechanics, 2014, 38, 281-296.	3.3	28
13	Evaluation and improvement of macroscopic yield criteria of porous media having a Drucker-Prager matrix. International Journal of Plasticity, 2020, 126, 102609.	8.8	27
14	Influences of micro-pores and meso-pores on elastic and plastic properties of porous materials. European Journal of Mechanics, A/Solids, 2018, 72, 407-423.	3.7	26
15	A micromechanical model of inherently anisotropic rocks. Computers and Geotechnics, 2015, 65, 73-79.	4.7	24
16	Performance of enhanced geothermal system with varying injection-production parameters and reservoir properties. Applied Thermal Engineering, 2022, 207, 118160.	6.0	24
17	A new macroscopic criterion of porous materials with a Mises-Schleicher compressible matrix. European Journal of Mechanics, A/Solids, 2015, 49, 531-538.	3.7	23
18	An adaptive coupling method of state-based peridynamics theory and finite element method for modeling progressive failure process in cohesive materials. Computer Methods in Applied Mechanics and Engineering, 2020, 370, 113248.	6.6	23

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19	Some micromechanical models of elastoplastic behaviors of porous geomaterials. Journal of Rock Mechanics and Geotechnical Engineering, 2017, 9, 1-17.	8.1	22
20	A damage model of mechanical behavior of porous materials: Application to sandstone. International Journal of Damage Mechanics, 2018, 27, 1325-1351.	4.2	22
21	A Novel Approach to Enhance the Urease Activity of Sporosarcina pasteurii and its Application on Microbial-Induced Calcium Carbonate Precipitation for Sand. Geomicrobiology Journal, 2019, 36, 819-825.	2.0	18
22	Improved criteria for ductile porous materials having a Green type matrix by using Eshelby-like velocity fields. Theoretical and Applied Fracture Mechanics, 2013, 67-68, 14-21.	4.7	16
23	Multi-scale modeling of time-dependent behavior of claystones with a viscoplastic compressible porous matrix. Mechanics of Materials, 2014, 79, 25-34.	3.2	16
24	A microâ€“macro model for porous geomaterials with inclusion debonding. International Journal of Damage Mechanics, 2015, 24, 1026-1046.	4.2	16
25	A micro-mechanics based viscoplastic model for clayey rocks. Computers and Geotechnics, 2017, 89, 92-102.	4.7	16
26	An approximate strength criterion of porous materials with a pressure sensitive and tension-compression asymmetry matrix. International Journal of Engineering Science, 2018, 132, 1-15.	5.0	16
27	A constitutive model for anisotropic clay-rich rocks considering micro-structural composition. International Journal of Rock Mechanics and Minings Sciences, 2022, 151, 105029.	5.8	16
28	Approximate plastic yield criteria of geomaterials with pores and grains embedded in a porous matrix. International Journal of Plasticity, 2022, 153, 103275.	8.8	16
29	Numerical homogenization of elastic properties and plastic yield stress of rock-like materials with voids and inclusions at same scale. European Journal of Mechanics, A/Solids, 2020, 81, 103958.	3.7	15
30	Homogenization of saturated double porous media with Eshelby-like velocity field. Acta Geophysica, 2014, 62, 1146-1162.	2.0	14
31	A multi-scale model of plasticity and damage for rock-like materials with pores and inclusions. International Journal of Rock Mechanics and Minings Sciences, 2021, 138, 104579.	5.8	14
32	Prediction of TBM cutterhead speed and penetration rate for high-efficiency excavation of hard rock tunnel using CNN-LSTM model with construction big data. Arabian Journal of Geosciences, 2022, 15, 1.	1.3	14
33	Shakedown of porous material with Drucker-Prager dilatant matrix under general cyclic loadings. Composite Structures, 2019, 220, 566-579.	5.8	13
34	Macroscopic Yield Criterion for Ductile Materials Containing Randomly Oriented Spheroidal Cavities. International Journal of Damage Mechanics, 2011, 20, 1198-1216.	4.2	11
35	Influence of pore pressure on plastic deformation and strength of limestone under compressive stress. Acta Geotechnica, 2019, 14, 535-545.	5.7	11
36	Shakedown analysis of a hollow sphere by interior-point method with non-linear optimization. International Journal of Mechanical Sciences, 2020, 175, 105515.	6.7	11

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37	An elasticâ€“plastic model for porous rocks with two populations of voids. Computers and Geotechnics, 2016, 76, 194-200.	4.7	10
38	A macroscopic criterion of shakedown limit for ductile porous materials subjected to general cyclic loadings. Mechanics of Materials, 2017, 115, 76-87.	3.2	10
39	Insight of molecular simulation to better assess deformation and failure of clay-rich rocks in compression and extension. International Journal of Rock Mechanics and Minings Sciences, 2021, 138, 104589.	5.8	10
40	Contribution of atomistic study to better understand water saturation effect on mechanical behavior of clayey rocks in triaxial compression. Computers and Geotechnics, 2022, 146, 104738.	4.7	10
41	A numerical study of effective mechanical behaviors of rock like materials based on Fast Fourier Transform. Mechanics of Materials, 2016, 92, 275-288.	3.2	9
42	A microstructure-based constitutive model for cement paste with chemical leaching effect. Mechanics of Materials, 2020, 150, 103571.	3.2	9
43	Prediction of plastic yield surface for porous materials by a machine learning approach. Materials Today Communications, 2020, 25, 101477.	1.9	9
44	Micromechanical modeling of mortar as a matrixâ€“inclusion composite with drying effects. International Journal for Numerical and Analytical Methods in Geomechanics, 2013, 37, 1034-1047.	3.3	8
45	Macroscopic criteria for Green type porous materials with spheroidal voids: application to double porous materials. International Journal for Numerical and Analytical Methods in Geomechanics, 2017, 41, 1453-1473.	3.3	8
46	A micro-mechanics-based elasticâ€“plastic model for porous rocks: applications to sandstone and chalk. Acta Geotechnica, 2018, 13, 329.	5.7	8
47	A micromechanics-based enhanced plastic damage model including localization analysis for heterogeneous geomaterials. Computers and Geotechnics, 2020, 122, 103512.	4.7	8
48	A novel true triaxial test device with a high-temperature module for thermal-mechanical property characterization of hard rocks. European Journal of Environmental and Civil Engineering, 2023, 27, 1697-1714.	2.1	8
49	A micromechanical study of drying and carbonation effects in cement-based materials. Continuum Mechanics and Thermodynamics, 2015, 27, 49-61.	2.2	7
50	A micromechanicsâ€based model for concrete materials subjected to carbonation. International Journal for Numerical and Analytical Methods in Geomechanics, 2016, 40, 1203-1218.	3.3	7
51	Plastic modeling of porous rocks in drained and undrained conditions. Computers and Geotechnics, 2020, 117, 103277.	4.7	7
52	A homogenized macroscopic criterion for shakedown analysis of ductile porous media with kinematical hardening matrix. European Journal of Mechanics, A/Solids, 2020, 82, 104015.	3.7	7
53	An elastoplastic damage constitutive model for rock-like materials with a fractional plastic flow rule. International Journal of Rock Mechanics and Minings Sciences, 2022, 156, 105140.	5.8	7
54	Exact elastic solution of the axisymmetric and deviatoric loaded hollow sphere. International Journal of Pressure Vessels and Piping, 2018, 162, 40-45.	2.6	6

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55	A multiscale elastoplastic constitutive model for geomaterials with a porous matrix-inclusion microstructure. Computers and Geotechnics, 2020, 126, 103683.	4.7	6
56	A micromechanical model for porous materials with a reinforced matrix. Mechanics Research Communications, 2016, 72, 81-86.	1.8	5
57	A three-scale micro-mechanical model for elasticâ€“plastic damage modeling of shale rocks. Acta Geotechnica, 2020, 15, 3525-3543.	5.7	5
58	Influences of chemical leaching on elastic and plastic properties of cement-based materials. European Journal of Environmental and Civil Engineering, 2017, 21, 696-711.	2.1	3
59	Modified KCC model for modelling mechanical behaviour of quartz sandstone under triaxial compression from low to high confining pressures. European Journal of Environmental and Civil Engineering, 2022, 26, 6880-6896.	2.1	2
60	Multiscale modeling approaches and micromechanics of porous rocks. , 2017, , 215-232.		1
61	An explicit formulation of the macroscopic strength criterion for porous media with pressure and Lode angle dependent matrix under axisymmetric loading. Journal of Rock Mechanics and Geotechnical Engineering, 2021, 13, 820-832.	8.1	1
62	Molecular dynamics study on creep behavior of montmorillonite. IOP Conference Series: Earth and Environmental Science, 2021, 861, 042099.	0.3	1
63	Effective Strength of Saturated Double Porous Media with a Drucker-Prager Solid Phase. , 2013, , .		0
64	A Micro-Macro Model for the Mortar with Drying Effect. , 2013, , .		0
65	Micromechanical Modeling of Elastoplastic Behavior of a Shale Gas Reservoir. , 2017, , .		0
66	Investigation of Parameter Influence on Damage Evolution via PD-FEM Coupling Method. Lecture Notes in Civil Engineering, 2021, , 672-679.	0.4	0
67	A FFT-based plastic model of heterogeneous rock-like geomaterials considering micro-void evolution. IOP Conference Series: Earth and Environmental Science, 2021, 861, 032043.	0.3	0
68	Homogenization of Ductile Porous Materials by Limit and Shakedown Analysis. Lecture Notes in Applied and Computational Mechanics, 2021, , 97-116.	2.2	0