

Xin Cai

List of Publications by Year in descending order

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65
papers

2,747
citations

218592

26
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182361

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docs citations

65
times ranked

1318
citing authors

#	ARTICLE	IF	CITATIONS
1	Mechanical and microseismic characteristics of sandstones subject to moderate low-frequency differential cyclic loading (DCL) followed by monotonic loading up to failure. <i>Acta Geotechnica</i> , 2023, 18, 187-215.	2.9	10
2	A novel AE source localization method using clustering detection to eliminate abnormal arrivals. <i>International Journal of Mining Science and Technology</i> , 2022, 32, 51-62.	4.6	14
3	The Permeability Alternation of Shale Fractures due to Sc-CO ₂ Soaking: Implications for Sc-CO ₂ Fracturing and Deep CO ₂ Sequestration in Shale Reservoirs. <i>Advances in Materials Science and Engineering</i> , 2022, 2022, 1-12.	1.0	0
4	The role of water content in rate dependence of tensile strength of a fine-grained sandstone. <i>Archives of Civil and Mechanical Engineering</i> , 2022, 22, 1.	1.9	20
5	A novel robust method for acoustic emission source location using DBSCAN principle. <i>Measurement: Journal of the International Measurement Confederation</i> , 2022, 191, 110812.	2.5	9
6	Analysis of mechanical behaviour and fracture interaction of multi-hole rock mass with DIC measurement. <i>Measurement: Journal of the International Measurement Confederation</i> , 2022, 191, 110794.	2.5	17
7	Water saturation effects on mechanical performances and failure characteristics of rock-concrete disc with different interface dip angles. <i>Construction and Building Materials</i> , 2022, 324, 126684.	3.2	24
8	Regressive and Big-Data-Based Analyses of Rock Drillability Based on Drilling Process Monitoring (DPM) Parameters. <i>Mathematics</i> , 2022, 10, 628.	1.1	6
9	Mechanical behaviour of medium-grained sandstones exposed to differential cyclic loading with distinct loading and unloading rates. <i>Journal of Rock Mechanics and Geotechnical Engineering</i> , 2022, 14, 1849-1871.	3.7	18
10	Mining Stress Evolution Law of Inclined Backfilled Stopes Considering the Brittle-Ductile Transition in Deep Mining. <i>Mathematics</i> , 2022, 10, 1308.	1.1	4
11	A novel robust AE/MS source location method using optimized M-estimate consensus sample. <i>International Journal of Mining Science and Technology</i> , 2022, 32, 779-791.	4.6	10
12	A New Algebraic Solution for Acoustic Emission Source Localization without Pre-measuring Wave Velocity. <i>Sensors</i> , 2021, 21, 459.	2.1	10
13	Mechanical behavior of marble exposed to freeze-thaw-fatigue loading. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2021, 138, 104648.	2.6	73
14	Coupled Effects of Water and Low Temperature on Quasistatic and Dynamic Mechanical Behavior of Sandstone. <i>Geofluids</i> , 2021, 2021, 1-12.	0.3	6
15	A novel linear-correction localization method of acoustic emission source for velocity-free system. <i>Ultrasonics</i> , 2021, 115, 106458.	2.1	8
16	Dynamic response and fracture evolution of marble specimens containing rectangular cavities subjected to dynamic loading. <i>Bulletin of Engineering Geology and the Environment</i> , 2021, 80, 7701-7716.	1.6	23
17	Failure mechanism analysis of rock in particle discrete element method simulation based on moment tensors. <i>Computers and Geotechnics</i> , 2021, 136, 104215.	2.3	19
18	Constrained total least squares method using TDOA measurements for jointly estimating acoustic emission source and wave velocity. <i>Measurement: Journal of the International Measurement Confederation</i> , 2021, 182, 109758.	2.5	26

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19	Analytical stress solution for rock mass containing two holes based on an improved Schwarz alternating method. <i>Theoretical and Applied Fracture Mechanics</i> , 2021, 116, 103092.	2.1	11
20	Estimating Macrofracture Toughness of Sandstone Based on Nanoindentation. <i>Geofluids</i> , 2021, 2021, 1-10.	0.3	3
21	Rock mass watering for rock-burst prevention: some thoughts on the mechanisms deduced from laboratory results. <i>Bulletin of Engineering Geology and the Environment</i> , 2021, 80, 8725-8743.	1.6	31
22	Mechanical Responses of a Deeply Buried Granite Exposed to Multilevel Uniaxial and Triaxial Cyclic Stresses: Insights into Deformation Behavior, Energy Dissipation, and Hysteresis. <i>Advances in Materials Science and Engineering</i> , 2021, 2021, 1-29.	1.0	7
23	Global Wave Velocity Change Measurement of Rock Material by Full-Waveform Correlation. <i>Sensors</i> , 2021, 21, 7429.	2.1	1
24	Dynamic Response and Energy Evolution of Sandstone Under Coupled Static–Dynamic Compression: Insights from Experimental Study into Deep Rock Engineering Applications. <i>Rock Mechanics and Rock Engineering</i> , 2020, 53, 1305-1331.	2.6	204
25	Environmental Evaluation of Coal Mines Based on Generalized Linear Model and Nonlinear Fuzzy Analytic Hierarchy. <i>Geofluids</i> , 2020, 2020, 1-10.	0.3	5
26	Water saturation effects on dynamic behavior and microstructure damage of sandstone: Phenomena and mechanisms. <i>Engineering Geology</i> , 2020, 276, 105760.	2.9	106
27	Interval Nonprobabilistic Reliability Analysis for Ancient Landslide considering Strain-Softening Behavior: A Case Study. <i>Advances in Civil Engineering</i> , 2020, 2020, 1-13.	0.4	2
28	Acoustic emission source location considering refraction in layered media with cylindrical surface. <i>Transactions of Nonferrous Metals Society of China</i> , 2020, 30, 789-799.	1.7	20
29	Static and dynamic tensile behavior of rock-concrete bi-material disc with different interface inclinations. <i>Construction and Building Materials</i> , 2020, 256, 119424.	3.2	51
30	A Weighted Linear Least Squares Location Method of an Acoustic Emission Source without Measuring Wave Velocity. <i>Sensors</i> , 2020, 20, 3191.	2.1	13
31	An Improved Onset Time Picking Method for Low SNR Acoustic Emission Signals. <i>IEEE Access</i> , 2020, 8, 47756-47767.	2.6	9
32	Water Saturation Effects on Thermal Infrared Radiation Features of Rock Materials During Deformation and Fracturing. <i>Rock Mechanics and Rock Engineering</i> , 2020, 53, 4839-4856.	2.6	68
33	Permeability Experiment of Fractured Rock with Rough Surfaces under Different Stress Conditions. <i>Geofluids</i> , 2020, 2020, 1-15.	0.3	5
34	A Closed-Form Method of Acoustic Emission Source Location for Velocity-Free System Using Complete TDOA Measurements. <i>Sensors</i> , 2020, 20, 3553.	2.1	11
35	Bearing characteristics and fatigue damage mechanism of multi-pillar system subjected to different cyclic loads. <i>Journal of Central South University</i> , 2020, 27, 542-553.	1.2	9
36	Water Infusion on the Stability of Coal Specimen under Different Static Stress Conditions. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 2043.	1.3	4

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37	Water-induced variations in dynamic behavior and failure characteristics of sandstone subjected to simulated geo-stress. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2020, 130, 104339.	2.6	77
38	Fracture behavior and damage mechanisms of sandstone subjected to wetting-drying cycles. <i>Engineering Fracture Mechanics</i> , 2020, 234, 107109.	2.0	85
39	Permeability Evolution of Fractured Rock Subjected to Cyclic Axial Load Conditions. <i>Geofluids</i> , 2020, 2020, 1-12.	0.3	8
40	Micromechanism of the diffusion of cement-based grouts in porous media under two hydraulic operating conditions: constant flow rate and constant pressure. <i>Acta Geotechnica</i> , 2019, 14, 825-841.	2.9	28
41	A New Acoustic Emission Source Location Method Using Tri-Variate Kernel Density Estimator. <i>IEEE Access</i> , 2019, 7, 158379-158388.	2.6	16
42	Water-Weakening Effects on the Mechanical Behavior of Different Rock Types: Phenomena and Mechanisms. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 4450.	1.3	98
43	Effects of height/diameter ratio on failure and damage properties of granite under coupled bending and splitting deformation. <i>Engineering Fracture Mechanics</i> , 2019, 220, 106640.	2.0	105
44	Strength and filtration stability of cement grouts in porous media. <i>Tunnelling and Underground Space Technology</i> , 2019, 89, 1-9.	3.0	37
45	Comparison of Presplit and Smooth Blasting Methods for Excavation of Rock Wells. <i>Shock and Vibration</i> , 2019, 2019, 1-12.	0.3	13
46	Damage Evolution and Failure Behavior of Post-Mainshock Damaged Rocks under Aftershock Effects. <i>Energies</i> , 2019, 12, 4429.	1.6	28
47	An improved joint method for onset picking of acoustic emission signals with noise. <i>Journal of Central South University</i> , 2019, 26, 2878-2890.	1.2	14
48	Water saturation effects on dynamic fracture behavior of sandstone. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2019, 114, 46-61.	2.6	152
49	Cement grout transport within sand with fractal characteristics considering filtration. <i>European Journal of Environmental and Civil Engineering</i> , 2019, 23, 1497-1519.	1.0	11
50	Experimental Investigation of the Progressive Failure of Multiple Pillar-Roof System. <i>Rock Mechanics and Rock Engineering</i> , 2018, 51, 1629-1636.	2.6	47
51	Locating an Acoustic Emission Source in Multilayered Media Based on the Refraction Path Method. <i>IEEE Access</i> , 2018, 6, 25090-25099.	2.6	27
52	Effects of water content on fracture and mechanical behavior of sandstone with a low clay mineral content. <i>Engineering Fracture Mechanics</i> , 2018, 193, 47-65.	2.0	175
53	A Global Optimization-Based Method for the Prediction of Water Inrush Hazard from Mining Floor. <i>Water (Switzerland)</i> , 2018, 10, 1618.	1.2	24
54	In-Situ and Numerical Investigation of Groundwater Inrush Hazard from Grouted Karst Collapse Pillar in Longwall Mining. <i>Water (Switzerland)</i> , 2018, 10, 1187.	1.2	63

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55	Experimental Investigation on Hydraulic Properties of Granular Sandstone and Mudstone Mixtures. <i>Geofluids</i> , 2018, 2018, 1-13.	0.3	38
56	Discrimination of Rock Fracture and Blast Events Based on Signal Complexity and Machine Learning. <i>Shock and Vibration</i> , 2018, 2018, 1-10.	0.3	10
57	Dynamic tensile properties of sandstone subjected to wetting and drying cycles. <i>Construction and Building Materials</i> , 2018, 182, 215-232.	3.2	161
58	A New Closed-Form Solution for Acoustic Emission Source Location in the Presence of Outliers. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 949.	1.3	18
59	Influence of cyclic wetting and drying on physical and dynamic compressive properties of sandstone. <i>Engineering Geology</i> , 2017, 220, 1-12.	2.9	163
60	Dynamic behavior of rock during its post failure stage in SHPB tests. <i>Transactions of Nonferrous Metals Society of China</i> , 2017, 27, 184-196.	1.7	44
61	Fracture evolution and failure behaviour of marble specimens containing rectangular cavities under uniaxial loading. <i>Engineering Fracture Mechanics</i> , 2017, 184, 183-201.	2.0	71
62	Experimental study on the location of an acoustic emission source considering refraction in different media. <i>Scientific Reports</i> , 2017, 7, 7472.	1.6	30
63	Experimental and Numerical Investigation on the Bearing and Failure Mechanism of Multiple Pillars Under Overburden. <i>Rock Mechanics and Rock Engineering</i> , 2017, 50, 995-1010.	2.6	39
64	Strength characteristics of dry and saturated rock at different strain rates. <i>Transactions of Nonferrous Metals Society of China</i> , 2016, 26, 1919-1925.	1.7	92
65	Influence of Water Content on Mechanical Properties of Rock in Both Saturation and Drying Processes. <i>Rock Mechanics and Rock Engineering</i> , 2016, 49, 3009-3025.	2.6	216