

Åkos TÅrÅk

List of Publications by Year in descending order

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Version: 2024-02-01

101
papers

2,082
citations

257101

24
h-index

276539

41
g-index

120
all docs

120
docs citations

120
times ranked

1689
citing authors

#	ARTICLE	IF	CITATIONS
1	The influence of fabric and water content on selected rock mechanical parameters of travertine, examples from Hungary. <i>Engineering Geology</i> , 2010, 115, 237-245.	2.9	171
2	Mineralogical and colour changes of quartz sandstones by heat. <i>Environmental Geology</i> , 2004, 46, 311.	1.2	164
3	How River Rocks Round: Resolving the Shape-Size Paradox. <i>PLoS ONE</i> , 2014, 9, e88657.	1.1	111
4	Critical degree of saturation: A control factor of freeze-thaw damage of porous limestones at Castle of Chambord, France. <i>Engineering Geology</i> , 2015, 185, 71-80.	2.9	109
5	Surface strength and mineralogy of weathering crusts on limestone buildings in Budapest. <i>Building and Environment</i> , 2003, 38, 1185-1192.	3.0	90
6	Current methods and future trends in testing, durability analyses and provenance studies of natural stones used in historical monuments. <i>Engineering Geology</i> , 2010, 115, 139-142.	2.9	79
7	Urban and rural limestone weathering; the contribution of dust to black crust formation. <i>Environmental Earth Sciences</i> , 2011, 63, 675-693.	1.3	72
8	Black crusts on travertine: factors controlling development and stability. <i>Environmental Geology</i> , 2008, 56, 583-594.	1.2	51
9	Element partitioning and potential mobility within surface dusts on buildings in a polluted urban environment, Budapest. <i>Atmospheric Environment</i> , 2006, 40, 6780-6790.	1.9	49
10	Mineralogical, geochemical and microfabric evidences of gypsum crusts: a case study from Budapest. <i>Environmental Geology</i> , 2007, 52, 385-397.	1.2	47
11	Centrifugal model test on a riverine landslide in the Three Gorges Reservoir induced by rainfall and water level fluctuation. <i>Geoscience Frontiers</i> , 2022, 13, 101378.	4.3	47
12	Observations on the factors influencing stability of building stones following contour scaling: a case study of oolitic limestones from Budapest, Hungary. <i>Building and Environment</i> , 2003, 38, 1173-1183.	3.0	46
13	Transition metals and water-soluble ions in deposits on a building and their potential catalysis of stone decay. <i>Atmospheric Environment</i> , 2008, 42, 7657-7668.	1.9	40
14	The behaviour of consolidated volcanic tuffs: weathering mechanisms under simulated laboratory conditions. <i>Environmental Geology</i> , 2008, 56, 699-713.	1.2	36
15	Morphology and mineralogy of weathering crusts on highly porous oolitic limestones, a case study from Budapest. <i>Environmental Geology</i> , 2004, 46, 333.	1.2	35
16	Palynology of a terrestrial coal-bearing series across the Triassic/Jurassic boundary (Mecsek Mts.) <i>TJ ETQq0 0 0 rgBT/Overlock, 10 Tf 50 1</i>	0.4	33
17	Adsorption and chemical precipitation of lead and zinc from contaminated solutions in porous rocks: Possible application in environmental protection. <i>Journal of African Earth Sciences</i> , 2016, 122, 98-106.	0.9	31
18	Oolitic limestone in a polluted atmospheric environment in Budapest: weathering phenomena and alterations in physical properties. <i>Geological Society Special Publication</i> , 2002, 205, 363-379.	0.8	30

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19	Geochemical and mineralogical composition of black weathering crusts on limestones from seven different European countries. <i>Environmental Earth Sciences</i> , 2018, 77, 1.	1.3	29
20	Slope stability and rockfall assessment of volcanic tuffs using RPAS with 2-D FEM slope modelling. <i>Natural Hazards and Earth System Sciences</i> , 2018, 18, 583-597.	1.5	29
21	GIS-based landslide hazard predicting system and its real-time test during a typhoon, Zhejiang Province, Southeast China. <i>Engineering Geology</i> , 2014, 175, 9-21.	2.9	27
22	The influence of lithology and pore-size distribution on the durability of acid volcanic tuffs, Hungary. <i>Geological Society Special Publication</i> , 2007, 271, 251-260.	0.8	26
23	Freeze-thaw durability of repair mortars and porous limestone: compatibility issues. <i>Progress in Earth and Planetary Science</i> , 2019, 6, .	1.1	26
24	Variability of technical properties and durability in volcanic tuffs from the same quarry region “ examples from Northern Hungary. <i>Engineering Geology</i> , 2019, 262, 105319.	2.9	26
25	Predicting environmental conditions to minimise salt damage at the Tower of London: a comparison of two approaches. <i>Environmental Geology</i> , 2007, 52, 369-374.	1.2	25
26	In situ investigation of stone heritage sites for conservation purposes: a case study of the Székesfehérvár Ruin Garden in Hungary. <i>Progress in Earth and Planetary Science</i> , 2019, 6, .	1.1	23
27	Controls on development of Mid-Triassic ramps: examples from southern Hungary. <i>Geological Society Special Publication</i> , 1998, 149, 339-367.	0.8	22
28	The effect of temperature on the strength of two different granites. <i>Central European Geology</i> , 2015, 58, 356-369.	0.4	22
29	Geomaterials in construction and their sustainability: understanding their role in modern society. <i>Geological Society Special Publication</i> , 2016, 416, 1-22.	0.8	22
30	Non-destructive diagnosis by colorimetry of building stone subjected to high temperatures. <i>European Journal of Environmental and Civil Engineering</i> , 2016, 20, 643-655.	1.0	21
31	Long-term abrasion of rocks assessed by micro-Deval tests and estimation of the abrasion process of rock types based on strength parameters. <i>Engineering Geology</i> , 2021, 282, 105996.	2.9	21
32	Time-dependent changes in the strength of repair mortar used in the loss compensation of stone. <i>Environmental Earth Sciences</i> , 2011, 63, 1613-1621.	1.3	20
33	Analysing the modified Hoek-Brown failure criteria using Hungarian granitic rocks. <i>Geomechanics and Geophysics for Geo-Energy and Geo-Resources</i> , 2016, 2, 131-136.	1.3	20
34	Relationship between density, compressive strength, tensile strength and aggregate properties of andesites from Hungary. <i>Environmental Earth Sciences</i> , 2017, 76, 1.	1.3	20
35	Application of UAV in Topographic Modelling and Structural Geological Mapping of Quarries and Their Surroundings “ Delineation of Fault-Bordered Raw Material Reserves. <i>Sensors</i> , 2020, 20, 489.	2.1	20
36	Surface Weathering of Tuffs: Compositional and Microstructural Changes in the Building Stones of the Medieval Castles of Hungary. <i>Minerals (Basel, Switzerland)</i> , 2020, 10, 376.	0.8	20

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37	Shear strength testing of consolidated claystones: breakpoint detection of shear stress versus shear displacement curves, a statistical approach. <i>GEM - International Journal on Geomathematics</i> , 2021, 12, 1.	0.7	20
38	Formation of dolomite mottling in Middle Triassic ramp carbonates (Southern Hungary). <i>Sedimentary Geology</i> , 2000, 131, 131-145.	1.0	19
39	<i>Building Stones</i> . , 2011, , 11-95.		18
40	Differences in texture, physical properties and microbiology of weathering crust and host rock: a case study of the porous limestone of Budapest (Hungary). <i>Geological Society Special Publication</i> , 2007, 271, 261-276.	0.8	17
41	Failure mechanisms of repair mortar stone interface assessed by pull-off strength tests. <i>Bulletin of Engineering Geology and the Environment</i> , 2017, 76, 159-167.	1.6	14
42	Long-term assessment of creep and water effects on tunnel lining loads in weak rocks using displacement-based direct back analysis: an example from northwest of Iran. <i>Geomechanics and Geophysics for Geo-Energy and Geo-Resources</i> , 2022, 8, 1.	1.3	14
43	Hungarian dimensional stones: an overview. <i>Zeitschrift Der Deutschen Gesellschaft Fur Geowissenschaften</i> , 2007, 158, 361-374.	0.1	13
44	Natural stones for monuments: their availability for restoration and evaluation. <i>Geological Society Special Publication</i> , 2010, 333, 1-9.	0.8	13
45	The influence of binder/aggregate ratio on the pore properties and strength of repair mortars. <i>Environmental Earth Sciences</i> , 2013, 69, 1439-1449.	1.3	12
46	The effect of stylolites on the deterioration of limestone: possible mechanisms of damage evolution. <i>Environmental Earth Sciences</i> , 2018, 77, 1.	1.3	12
47	Strength and abrasive properties of andesite: relationships between strength parameters measured on cylindrical test specimens and micro-Deval values—a tool for durability assessment. <i>Bulletin of Engineering Geology and the Environment</i> , 2020, , 1.	1.6	12
48	Sustainable exploitation of mafic rock quarry waste for carbon sequestration following ball milling. <i>Resources Policy</i> , 2018, 59, 24-32.	4.2	10
49	The susceptibility to degradation of stone materials used in the built heritage of the Ortygia island (Syracuse, Italy): A laboratory study. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2021, 146, 104877.	2.6	10
50	Los Angeles and Micro-Deval Values of Volcanic Rocks and Their Use as Aggregates, Examples from Hungary. , 2015, , 115-118.		10
51	In Situ Methods of Testing Stone Monuments and the Application of Nondestructive Physical Properties Testing in Masonry Diagnosis. , 2010, , 177-193.		9
52	Holographic testing of possible mechanical effects of laser cleaning on the structure of model fresco samples. <i>NDT and E International</i> , 2014, 63, 53-59.	1.7	9
53	Long-term durability tests of andesite aggregates from Hungary. <i>Central European Geology</i> , 2017, 60, 333-343.	0.4	9
54	<i>Petrography, Fabric and Properties</i> . , 2006, , 487-495.		9

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55	Building Stones. , 2014, , 11-95.		9
56	Slope stability assessment of weathered clay by using field data and computer modelling: a case study from Budapest. Natural Hazards and Earth System Sciences, 2007, 7, 417-422.	1.5	8
57	Laboratory determination of direct shear strength of granitoid rocks; examples from the host rock of the nuclear waste storage facility of Bıtaapıti (Hungary). Central European Geology, 2010, 53, 405-417.	0.4	8
58	Porosity and compatibility of repair mortars and Hungarian porous limestones. Central European Geology, 2012, 55, 123-134.	0.4	8
59	Effect of Thermal and Freeze-thaw Stress on the Mechanical Properties of Porous Limestone. Periodica Polytechnica: Civil Engineering, 0, , .	0.6	8
60	Effects of long-term magnesium sulfate crystallisation tests on abrasion and durability of andesite aggregates. Bulletin of Engineering Geology and the Environment, 2021, 80, 8891-8901.	1.6	8
61	Study of Rock Mass Rating (RMR) and Geological Strength Index (GSI) Correlations in Granite, Siltstone, Sandstone and Quartzite Rock Masses. Applied Sciences (Switzerland), 2021, 11, 3351.	1.3	8
62	Investigation of the feasibility of using recycled steel fibers in tunnel lining segments. Tunnelling and Underground Space Technology, 2021, 110, 103826.	3.0	8
63	Direct shear strength test on rocks along discontinuities, under laboratory conditions. Pollack Periodica, 2014, 9, 139-150.	0.2	8
64	Facies analysis and genetic interpretation of travertine, Buda Vır-hegy, Hungary. Acta Geologica Hungarica, 2003, 46, 177-193.	0.2	7
65	Evaluation of the efficiency of consolidants on Hungarian porous limestone by non-destructive test methods. Central European Geology, 2007, 50, 299-312.	0.4	7
66	Physical changes of porous Hungarian limestones related to silicic acid ester consolidant treatments. Geological Society Special Publication, 2010, 331, 147-155.	0.8	6
67	Geothermal reservoir characteristics of Meso- and Cenozoic sedimentary rocks of Budapest (Hungary). Zeitschrift Der Deutschen Gesellschaft Fur Geowissenschaften, 2014, 165, 487-493.	0.1	6
68	Morphology and detachment mechanism of weathering crusts of porous limestone in the urban environment of Budapest. Central European Geology, 2007, 50, 225-240.	0.4	6
69	Dust deposition, microscale flow- and dispersion model of particulate matter, examples from the city center of Budapest. Idojaras, 2019, 123, 39-55.	0.2	6
70	Comparison of Mechanical Properties of Dry, Saturated and Frozen Porous Rocks. , 2019, , 113-118.		5
71	Effect of Cyclic Wetting and Drying on the Microstructure of Slip Zone Soils in Huangtupo Landslide. Journal of Engineering Science and Technology Review, 2016, 9, 209-216.	0.2	5
72	Comparative study of weathering features of stones in Hungarian castles: morphological characteristics and changes in physical properties. Zeitschrift Der Deutschen Gesellschaft Fur Geowissenschaften, 2007, 158, 931-955.	0.1	4

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73	Dimension stones of the North Hungarian masonry arch bridges. <i>Central European Geology</i> , 2015, 58, 230-245.	0.4	4
74	The effects of the different curing conditions and the role of added aggregate in the strength of repair mortars. <i>Environmental Earth Sciences</i> , 2017, 76, 1.	1.3	4
75	Experimental Investigation of Discoloration Generated by a CI ICE's Exhaust Gas on Various Stone Types. <i>Periodica Polytechnica Transportation Engineering</i> , 2018, 46, 158-163.	0.7	4
76	Muschelkalk Ramp Cycles Revisited. <i>Stratigraphy & Timescales</i> , 2018, 3, 265-284.	0.2	4
77	Characterization of Hoek's Brown constant mi of quasi-isotropic intact rock using rigidity index approach. <i>Acta Geotechnica</i> , 2022, 17, 877-902.	2.9	4
78	Freeze-Thaw and Salt Crystallization Durability of Silica Acid Ester Consolidated Porous Limestone from Hungary. <i>Minerals (Basel, Switzerland)</i> , 2021, 11, 824.	0.8	4
79	The Angle Between the Sample Surface and the Shear Plane; Its Influence on the Direct Shear Strength of Jointed Granitic Rocks and Opalinus Claystone. <i>Procedia Engineering</i> , 2017, 191, 1008-1014.	1.2	3
80	Effect of Exhaust Gas on Natural Stone Tablets, a Laboratory Experiment. <i>Periodica Polytechnica: Civil Engineering</i> , 0, , .	0.6	3
81	Multivariate analysis of Miocene sediments: Rákóczi Square, new metro station area, Budapest, Hungary. <i>Central European Geology</i> , 2011, 54, 391-405.	0.4	3
82	Rainfall-Induced or Lake-Water-Level-Controlled Landslide? An Example from the Steep Slopes of Lake Balaton, Hungary. <i>Water (Switzerland)</i> , 2022, 14, 1169.	1.2	3
83	Studies on the Mechanical Properties of Dry, Saturated, and Frozen Marls Using Destructive and Non-destructive Laboratory Approaches. <i>Iranian Journal of Science and Technology - Transactions of Civil Engineering</i> , 0, , 1.	1.0	2
84	Physical Alteration and Color Change of Granite Subjected to High Temperature. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 8792.	1.3	2
85	Heat-related Changes of Density, P-wave Velocity, and Surface Hardness of Granite. <i>Periodica Polytechnica: Civil Engineering</i> , 0, , .	0.6	2
86	Stability Analysis of Wine Cellars Cut into Volcanic Tuffs in Northern Hungary. , 2015, , 153-157.		2
87	Engineering geologic evaluation of overcompacted claystone, new metro line, Budapest. <i>Central European Geology</i> , 2012, 55, 223-240.	0.4	1
88	Influence of Discontinuity Inclination on the Shear Strength of Mont Terri Opalinus Claystones. <i>Periodica Polytechnica: Civil Engineering</i> , 2016, , .	0.6	1
89	Colour of Stone Slabs under Different Standard Illuminations. <i>Periodica Polytechnica: Civil Engineering</i> , 2016, , .	0.6	1
90	Characterization of Historic Binders and Stones of a Ruined Medieval Church (Hungary). <i>Periodica Polytechnica: Civil Engineering</i> , 2020, , .	0.6	1

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91	Shear Strength Behavior of Mont Terri Opalinus Claystone in Fault Zone. Pollack Periodica, 2015, 10, 31-38.	0.2	1
92	Effect of different conservation methods on some mechanical properties of swine bone. , 2013, , .		1
93	Engineering geological characterization of sediments at a new metro station, Budapest. Pollack Periodica, 2014, 9, 17-28.	0.2	1
94	Types of Landslides along Lake Balaton, Hungary. Periodica Polytechnica: Civil Engineering, 0, , .	0.6	1
95	Lead (II) and zinc (II) ions removal capacity of coarse limestone and rhyolite tuff from aqueous solutions. Anyag: Journal of Silicate Based and Composite Materials, 2013, 65, 86-89.	0.0	0
96	Utilization of repair mortar for the loss compensation of Hungarian porous limestone. Anyag: Journal of Silicate Based and Composite Materials, 2014, 66, 109-112.	0.0	0
97	The application of multivariate data analysis in the interpretation of engineering geological parameters. Open Geosciences, 2016, 8, .	0.6	0
98	The effect of silica-acid-ester stone consolidants on coarse limestone. Anyag: Journal of Silicate Based and Composite Materials, 2006, 58, 102-106.	0.0	0
99	The influence of geologic structure on design and construction in a moderately deformed paleozoic sequence in Eastern Australia. Central European Geology, 2007, 50, 363-380.	0.4	0
100	Long-Term Wear of Aggregates Assessed by Micro-Deval Tests. , 2019, , 95-100.		0
101	Shear strength behavior of Mont Terri Opalinus Claystone in fault zone. Pollack Periodica, 2015, 10, 31-38.	0.2	0