VÃ¡clav NeÅ¾erka

List of Publications by Year
in descending order

55 papers	809 citations	623188 14 h-index	552369 26 g-index
55 all docs	55 docs citations	55 times ranked	598 citing authors

#	Article	IF	Citations
1	Impact of silica fume, fly ash, and metakaolin on the thickness and strength of the ITZ in concrete. Cement and Concrete Composites, 2019, 103, 252-262.	4.6	147
2	Comprehensive study on mechanical properties of lime-based pastes with additions of metakaolin and brick dust. Cement and Concrete Research, 2014, 64, 17-29.	4.6	110
3	Investigation of crushed brick-matrix interface in lime-based ancient mortar by microscopy and nanoindentation. Cement and Concrete Composites, 2015, 55, 122-128.	4.6	49
4	Role of lime, fly ash, and slag in cement pastes containing recycled concrete fines. Construction and Building Materials, 2019, 201, 702-714.	3.2	49
5	Micromechanical characterization and modeling of cement pastes containing waste marble powder. Journal of Cleaner Production, 2018, 195, 1081-1090.	4.6	45
6	Impact of surface plasma treatment on the performance of PET fiber reinforcement in cementitious composites. Cement and Concrete Research, 2016, 89, 276-287.	4.6	41
7	Recovery of residual anhydrous clinker in finely ground recycled concrete. Resources, Conservation and Recycling, 2020, 155, 104640.	5.3	35
8	Enhancing cementitious pastes with waste marble sludge. Construction and Building Materials, 2020, 255, 119372.	3.2	31
9	EFFECT OF PVA MODIFICATION ON PROPERTIES OF CEMENT COMPOSITES. Acta Polytechnica, 2015, 55, 64-75.	0.3	28
10	An integrated experimental-numerical study of the performance of lime-based mortars in masonry piers under eccentric loading. Construction and Building Materials, 2016, 114, 913-924.	3.2	22
11	Mitigating inclusion-induced shrinkage cracking in cementitious composites by incorporating recycled concrete fines. Construction and Building Materials, 2020, 248, 118673.	3.2	22
12	Deterioration of bonding capacity of plasma-treated polymer fiber reinforcement. Cement and Concrete Composites, 2018, 89, 205-215.	4.6	19
13	Micromechanics-based simulations of compressive and tensile testing on lime-based mortars. Mechanics of Materials, 2017, 105, 49-60.	1.7	17
14	Contact Angle Measurement Tool Based on Image Analysis. Experimental Techniques, 2018, 42, 271-278.	0.9	16
15	A comprehensive study on adhesion between modified bituminous binders and mineral aggregates. Construction and Building Materials, 2021, 305, 124686.	3.2	14
16	A jigsaw puzzle metamaterial concept. Composite Structures, 2018, 202, 1275-1279.	3.1	13
17	Utilization of Recycled Fine-Ground Concrete from Railway Sleepers for Production of Cement-Based Binder. Applied Mechanics and Materials, 2013, 486, 323-326.	0.2	12
18	Mechanical Properties of Recycled Binder/Micro-Filler Cement-Based Material. Advanced Materials Research, 0, 1054, 234-237.	0.3	11

#	Article	IF	Citations
19	Use of Open Source DIC Tools for Analysis of Multiple Cracking in Fiber-Reinforced Concrete. Applied Mechanics and Materials, 0, 827, 336-339.	0.2	10
20	Real-Time Optical Measurement of Displacements Using Subpixel Image Registration. Experimental Techniques, 2019, 43, 315-323.	0.9	10
21	Improvement of bonding between synthetic fibers and a cementitious matrix using recycled concrete powder and plasma treatment: from a single fiber to FRC. European Journal of Environmental and Civil Engineering, 2022, 26, 3880-3897.	1.0	10
22	MICROSTRUCTURE DESCRIPTION AND MICROMECHANICAL PROPERTIES OF SPRUCE WOOD. Acta Polytechnica, 2015, 55, 39-49.	0.3	9
23	A Micromechanics-Based Model for Stiffness and Strength Estimation of Cocciopesto Mortars. Acta Polytechnica, 2012, 52, .	0.3	9
24	PVA increases efficiency of bacterially-induced self-healing in cement mortars. Cement and Concrete Composites, 2022, 131, 104593.	4.6	8
25	Composite Material Based on Cement and PVA: Evolution of Mechanical Properties during First 28 Days. Advanced Materials Research, 0, 1054, 215-220.	0.3	7
26	Modeling glulams in linear range with parameters updated using Bayesian inference. Engineering Structures, 2017, 138, 293-307.	2.6	7
27	ASSESSMENT OF 2D-DIC STOCHASTIC PATTERNS. Acta Polytechnica CTU Proceedings, 0, 13, 1.	0.3	6
28	Assessment of aggregate-bitumen coverage using entropy-based image segmentation. Road Materials and Pavement Design, 2020, 21, 2364-2375.	2.0	6
29	Mechanical Properties of Single and Double-Layered PVA Nanofibers. Key Engineering Materials, 0, 586, 261-264.	0.4	5
30	Micromechanical Properties of Spruce Tissues Using Static Nanoindentation and Modulus Mapping. Applied Mechanics and Materials, 0, 732, 115-118.	0.2	5
31	MECHANICAL PROPERTIES OF PVA NANOFIBER TEXTILES WITH INCORPORATED NANODIAMONDS, COPPER AND SILVER IONS. Acta Polytechnica, 2015, 55, 14-21.	0.3	4
32	Validation of Micromechanical Model for Prediction of ITZ Thickness of High-Strength Concrete Containing Secondary Cementitious Materials. Materials Science Forum, 2020, 995, 143-148.	0.3	4
33	Characterization of quarry dusts and industrial by-products as potential substitutes for traditional fillers and their impact on water susceptibility of asphalt concrete. Construction and Building Materials, 2021, 301, 124294.	3.2	4
34	Self-healing concrete: application of monodâ€™s approach for modeling Bacillus pseudofirmus growth curves. European Journal of Environmental and Civil Engineering, 2022, 26, 8229-8241.	1.0	4
35	Influence of Aggregate Stiffness on Fracture-Mechanical Properties of Lime-Based Mortars. Applied Mechanics and Materials, 0, 486, 289-294.	0.2	3
36	Replacement of Cement with Finely Ground Recycled Concrete: Influence on Mechanical Properties. Applied Mechanics and Materials, 2016, 825, 69-72.	0.2	3

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37	Using 2D Digital Image Analysis to Locate Position of Micro Fibers in Cross-Sections of Fiber-Reinforced Concrete. Key Engineering Materials, 0, 677, 169-174.	0.4	3
38	Influence of Freeze-Thaw Cycles on Mechanical Properties of Gypsum Determined Using the Impulse Excitation Method. Applied Mechanics and Materials, 2013, 486, 353-358.	0.2	2
39	Influence of Copper Ions on Mechanical Properties of PVA-Based Nanofiber Textiles. Applied Mechanics and Materials, 2013, 486, 201-204.	0.2	2
40	Compression Testing of Gypsum-Based Composite Reinforced by Recycled Wires from Automobile Tires. Applied Mechanics and Materials, 0, 732, 393-396.	0.2	1
41	Development of Mechanical Properties of Cement Paste with Different Addition of Polyvinyl Alcohol. Applied Mechanics and Materials, 0, 732, 81-84.	0.2	1
42	Non-Destructive Testing of Composite Gypsum Material Properties â€“ Long Time Measurement. Applied Mechanics and Materials, 0, 732, 321-324.	0.2	1
43	Performance of Stabilized and Non-Stabilized PVA Nanofiber Textiles Subjected to Tension. Applied Mechanics and Materials, 0, 732, 119-122.	0.2	1
44	Modulus Mapping and its Use to Determine the Effect Process of Drying on the Cells of Spruce. Key Engineering Materials, 0, 714, 25-28.	0.4	1
45	Effect of Reinforcement on Flexural Strength and Ductility of Gypsum-Based Composites with Recycled Wires from Automobile Tires. Applied Mechanics and Materials, 0, 827, 348-351.	0.2	1
46	MECHANICAL AND IMAGE ANALYSIS OF ADHESION BETWEEN MINERAL AGGREGATE AND BITUMINOUS BINDER. Acta Polytechnica CTU Proceedings, 2020, 26, 112-116.	0.3	1
47	Fracture-Micromechanics Based Model of Mortars Susceptible to Shrinkage. Key Engineering Materials, 0, 592-593, 189-192.	0.4	0
48	Use of Digital Image Correlation to Track Strain Evolution in Compressed Masonry Piers. Applied Mechanics and Materials, 0, 732, 337-340.	0.2	0
49	Effect of Curing Humidity on Stiffness of Cement Based Mortars with Recycled Fillers. Applied Mechanics and Materials, 0, 825, 19-22.	0.2	0
50	An Additively Manufactured Modular Metamaterial Composed of a Single Cell. Key Engineering Materials, 0, 722, 325-330.	0.4	0
51	Comparison of Compressive Strength and Youngâ€™s Modulus of Cement Samples with Different Types of Aggregate. Key Engineering Materials, 0, 677, 207-210.	0.4	0
52	Testing of 3-Dimensional Stabilizing Elements for Protection of Slopes: Possibilities of <i>In Situ</i> Testing. Applied Mechanics and Materials, 0, 827, 239-242.	0.2	0
53	Composite Middle Lamella Hardness and Youngâ€™s Modulus of Artificial Dried Spruce Wood by Nanoindentation. Applied Mechanics and Materials, 0, 827, 320-323.	0.2	0
54	A Lightweight DFT-Based Approach to the Optical Measurement of Displacements Using an Open-Source Python Code. Experimental Techniques, 0, , 1.	0.9	0

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55	MECHANICAL PROPERTIES IMPROVEMENT OF FIBER REINFORCED CONCRETE. Acta Polytechnica CTU Proceedings, 0, 22, 123-127.	0.3	0