

Peiliang Shen

List of Publications by Year in descending order

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69
papers

2,228
citations

159585

30
h-index

243625

44
g-index

69
all docs

69
docs citations

69
times ranked

1204
citing authors

#	ARTICLE	IF	CITATIONS
1	The effect of curing regimes on the mechanical properties, nano-mechanical properties and microstructure of ultra-high performance concrete. <i>Cement and Concrete Research</i> , 2019, 118, 1-13.	11.0	139
2	An active dealkalization of red mud with roasting and water leaching. <i>Journal of Hazardous Materials</i> , 2015, 286, 85-91.	12.4	107
3	Investigation on expansion effect of the expansive agents in ultra-high performance concrete. <i>Cement and Concrete Composites</i> , 2020, 105, 103425.	10.7	95
4	A comparison of liquid-solid and gas-solid accelerated carbonation for enhancement of recycled concrete aggregate. <i>Cement and Concrete Composites</i> , 2021, 118, 103988.	10.7	82
5	Flexible and stretchable polyurethane/waterglass grouting material. <i>Construction and Building Materials</i> , 2017, 138, 240-246.	7.2	80
6	Experimental investigation on the autogenous shrinkage of steam cured ultra-high performance concrete. <i>Construction and Building Materials</i> , 2018, 162, 512-522.	7.2	78
7	Performance and hydration study of ultra-fine sulfoaluminate cement-based double liquid grouting material. <i>Construction and Building Materials</i> , 2017, 132, 262-270.	7.2	61
8	Efficiency of metakaolin in steam cured high strength concrete. <i>Construction and Building Materials</i> , 2017, 152, 357-366.	7.2	56
9	Influence of superfine ettringite on the properties of sulphoaluminate cement-based grouting materials. <i>Construction and Building Materials</i> , 2018, 166, 723-731.	7.2	55
10	Phase assemblance evolution during wet carbonation of recycled concrete fines. <i>Cement and Concrete Research</i> , 2022, 154, 106733.	11.0	55
11	Synergetic recycling of waste glass and recycled aggregates in cement mortars: Physical, durability and microstructure performance. <i>Cement and Concrete Composites</i> , 2020, 113, 103632.	10.7	53
12	Sustainable reuse of waste glass and incinerated sewage sludge ash in insulating building products: Functional and durability assessment. <i>Journal of Cleaner Production</i> , 2019, 236, 117635.	9.3	51
13	Probing the exact form and doping preference of magnesium in ordinary Portland cement clinker phases: A study from experiments and DFT simulations. <i>Cement and Concrete Research</i> , 2021, 144, 106420.	11.0	51
14	Feasible use of municipal solid waste incineration bottom ash in ultra-high performance concrete. <i>Cement and Concrete Composites</i> , 2020, 114, 103814.	10.7	49
15	Revealing the substitution preference of zinc in ordinary Portland cement clinker phases: A study from experiments and DFT calculations. <i>Journal of Hazardous Materials</i> , 2021, 409, 124504.	12.4	49
16	Development and characteristics of ultra high-performance lightweight cementitious composites (UHP-LCCs). <i>Cement and Concrete Research</i> , 2021, 145, 106462.	11.0	49
17	Effect of rubber particle modification on properties of rubberized concrete. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , 2014, 29, 763-768.	1.0	47
18	Determination of water content in fresh concrete mix based on relative dielectric constant measurement. <i>Construction and Building Materials</i> , 2012, 34, 306-312.	7.2	46

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19	Influence of LiAl-layered double hydroxides with 3D micro-nano structures on the properties of calcium sulphoaluminate cement clinker. <i>Cement and Concrete Composites</i> , 2016, 70, 15-23.	10.7	46
20	Sintered bayer red mud based ceramic bricks: Microstructure evolution and alkalis immobilization mechanism. <i>Ceramics International</i> , 2017, 43, 13004-13008.	4.8	45
21	Water desorption characteristics of saturated lightweight fine aggregate in ultra-high performance concrete. <i>Cement and Concrete Composites</i> , 2020, 106, 103456.	10.7	45
22	Development of high performance lightweight concrete using ultra high performance cementitious composite and different lightweight aggregates. <i>Cement and Concrete Composites</i> , 2021, 124, 104277.	10.7	45
23	Development of high-strength pervious concrete incorporated with high percentages of waste glass. <i>Cement and Concrete Composites</i> , 2020, 114, 103790.	10.7	43
24	Hydration monitoring and strength prediction of cement-based materials based on the dielectric properties. <i>Construction and Building Materials</i> , 2016, 126, 179-189.	7.2	41
25	Experimental and numerical study on the compressive behavior of micro-expansive ultra-high-performance concrete-filled steel tube columns. <i>Construction and Building Materials</i> , 2020, 254, 119150.	7.2	40
26	Preparation aragonite whisker-rich materials by wet carbonation of cement: Towards yielding micro-fiber reinforced cement and sequestering CO ₂ . <i>Cement and Concrete Research</i> , 2022, 159, 106891.	11.0	38
27	Microstructural Development of Hydrating Portland Cement Paste at Early Ages Investigated with Non-destructive Methods and Numerical Simulation. <i>Journal of Nondestructive Evaluation</i> , 2013, 32, 228-237.	2.4	36
28	Early-age and microstructural properties of glass powder blended cement paste: Improvement by seawater. <i>Cement and Concrete Composites</i> , 2021, 122, 104165.	10.7	36
29	Mix design and performance of lightweight ultra high-performance concrete. <i>Materials and Design</i> , 2022, 216, 110553.	7.0	35
30	Effects of Aluminum Sulfate and Quicklime/Fluorgypsum Ratio on the Properties of Calcium Sulfoaluminate (CSA) Cement-Based Double Liquid Grouting Materials. <i>Materials</i> , 2019, 12, 1222.	2.9	33
31	Enhanced toughness of ultra-fine sulphoaluminate cement-based hybrid grouting materials by incorporating in-situ polymerization of acrylamide. <i>Construction and Building Materials</i> , 2021, 292, 123421.	7.2	30
32	Utilization of municipal solid waste incineration bottom ash (IBA) aggregates in high-strength pervious concrete. <i>Resources, Conservation and Recycling</i> , 2021, 174, 105736.	10.8	30
33	An alternative method for performance improvement of ultra-high performance concrete by internal curing: Role of physicochemical properties of saturated lightweight fine aggregate. <i>Construction and Building Materials</i> , 2021, 312, 125373.	7.2	28
34	Study on the hydration of young concrete based on dielectric property measurement. <i>Construction and Building Materials</i> , 2019, 196, 354-361.	7.2	26
35	Development of high-ferrite cement: Toward green cement production. <i>Journal of Cleaner Production</i> , 2021, 327, 129487.	9.3	23
36	Expansive ultra-high performance concrete for concrete-filled steel tube applications. <i>Cement and Concrete Composites</i> , 2020, 114, 103813.	10.7	22

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37	Upcycling sintering red mud waste for novel superfine composite mineral admixture and CO ₂ sequestration. <i>Cement and Concrete Composites</i> , 2022, 129, 104497.	10.7	22
38	Strategy for preventing explosive spalling and enhancing material efficiency of lightweight ultra high-performance concrete. <i>Cement and Concrete Research</i> , 2022, 158, 106842.	11.0	22
39	Conceptual design and performance evaluation of high strength pervious concrete. <i>Construction and Building Materials</i> , 2021, 269, 121342.	7.2	21
40	Fast enhancement of recycled fine aggregates properties by wet carbonation. <i>Journal of Cleaner Production</i> , 2021, 313, 127867.	9.3	20
41	Mechanism of carbonating recycled concrete fines in aqueous environment: The particle size effect. <i>Cement and Concrete Composites</i> , 2022, 133, 104655.	10.7	19
42	Enhanced carbonation reactivity of wollastonite by rapid cooling process: Towards an ultra-low calcium CO ₂ sequestration binder. <i>Construction and Building Materials</i> , 2021, 299, 124336.	7.2	18
43	Carbonation-hardening properties and ITZ microstructure of low-calcium CO ₂ sequestration binder mortar. <i>Construction and Building Materials</i> , 2022, 336, 127589.	7.2	17
44	Mechanisms on Accelerating Hydration of Alite Mixed with Inorganic Salts in Seawater and Characteristics of Hydration Products. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 10479-10490.	6.7	16
45	Preparation of new cementitious system using fly ash and dehydrated autoclaved aerated concrete. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , 2014, 29, 726-732.	1.0	15
46	Revealing the Microstructure Evolution and Carbonation Hardening Mechanism of \hat{I}^2 -C ₂ S Pastes by Backscattered Electron Images. <i>Materials</i> , 2019, 12, 1561.	2.9	15
47	Hydration of quaternary phase-gypsum system. <i>Construction and Building Materials</i> , 2017, 152, 145-153.	7.2	14
48	Polyurethane/Red Mud Composites with Flexibility, Stretchability, and Flame Retardancy for Grouting. <i>Polymers</i> , 2018, 10, 906.	4.5	14
49	Effects of LiAl-layered double hydroxides on early hydration of calcium sulphoaluminate cement paste. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , 2017, 32, 1101-1107.	1.0	13
50	Improving the bonding capacity of recycled concrete aggregate by creating a reactive shell with aqueous carbonation. <i>Construction and Building Materials</i> , 2022, 315, 125733.	7.2	13
51	Corrosion behavior of carbon steel in chloride-contaminated ultra-high-performance cement pastes. <i>Cement and Concrete Composites</i> , 2022, 128, 104443.	10.7	13
52	Effect of aggregate exposing and curing agent on the performance of exposed aggregate concrete. <i>Construction and Building Materials</i> , 2017, 156, 675-683.	7.2	12
53	Microstructure of \hat{I}^2 -Dicalcium Silicate after Accelerated Carbonation. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , 2019, 34, 122-126.	1.0	10
54	Insights on Substitution Preference of Pb Ions in Sulfoaluminate Cement Clinker Phases. <i>Materials</i> , 2021, 14, 44.	2.9	10

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55	Adsorption of superplasticizers in fly ash blended cement pastes and its rheological effects. Journal Wuhan University of Technology, Materials Science Edition, 2012, 27, 773-778.	1.0	9
56	Preparation, characterization, and properties of silicate/polyurethaneurea composites based on dipropylene glycol dibenzoate. Polymer Composites, 2016, 37, 37-43.	4.6	8
57	Fabrication and performance of a polyurethane hybrid composite with waste red mud. Polymer Composites, 2019, 40, 2424-2431.	4.6	8
58	Improving the Mechanical Properties of Sulfoaluminate Cement-Based Grouting Material by Incorporating Limestone Powder for a Double Fluid System. Materials, 2020, 13, 4854.	2.9	8
59	Reinforcement of Broken Coal Rock Using Ultrafine Sulfoaluminate Cement-Based Grouting Materials. Journal of Materials in Civil Engineering, 2022, 34, .	2.9	8
60	Effects of sodium doping on carbonation behavior of $\text{I}\pm\text{-CS}$. Cement and Concrete Composites, 2022, 131, 104607.	10.7	8
61	Effect of MXene (Nano-Ti ₃ C ₂) on Early-Age Hydration of Cement Paste. Journal of Nanomaterials, 2015, 2015, 1-8.	2.7	7
62	Effect of nano-SnO ₂ on early-age hydration of Portland cement paste. Advances in Mechanical Engineering, 2019, 11, 168781401985194.	1.6	7
63	Utilization of CO ₂ cured CSW-MSWIBA cold bonded aggregate into lightweight concrete products for masonry units. Construction and Building Materials, 2021, 276, 122203.	7.2	7
64	Characteristics and production of semi-dry lightweight concrete with cold bonded aggregates made from recycling concrete slurry waste (CSW) and municipal solid waste incineration bottom ash (MSWIBA). Journal of Building Engineering, 2022, 45, 103434.	3.4	7
65	Improvement of the Hydration Kinetics of High Ferrite Cement: Synergic Effect of Gypsum and C ₃ S/C ₄ AF Systems. ACS Sustainable Chemistry and Engineering, 2021, 9, 15127-15137.	6.7	7
66	Effect of water-to-binder ratio on the properties of CSA cement-based grouting materials with LiAl-LDH. Advanced Composites Letters, 2020, 29, 2633366X2090887.	1.3	6
67	Microstructure and Properties of Sulfoaluminate Cement-Based Grouting Materials: Effect of Calcium Sulfate Variety. Advances in Materials Science and Engineering, 2020, 2020, 1-8.	1.8	4
68	Effect of Nano-Si ₃ N ₄ on the Mechanical Properties of Cement-Based Materials. Crystals, 2021, 11, 1556.	2.2	4
69	Effect and Mechanism of Superplasticizers on Performance of Ultrafine Sulfoaluminate Cement-Based Grouting Materials. Advances in Materials Science and Engineering, 2022, 2022, 1-11.	1.8	1