Qiang Zeng

List of Publications by Year
in descending order

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98	3,726	136740	143772
papers	citations	32 h-index	57 g-index

100	100	100	2035
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Kinetics of low radioactive wastewater imbibition and radionuclides sorption in partially saturated ternary-binder mortar. Journal of Hazardous Materials, 2022, 422, 126897.	6.5	4
2	Sustainable cement mortar with recycled plastics enabled by the matrix-aggregate compatibility improvement. Construction and Building Materials, 2022, 318, 125994.	3.2	19
3	Microstructure and properties of concrete with ceramic wastes. , 2022, , 229-253.		0
4	Pervious concrete with secondarily recycled low-quality brick-concrete demolition residue: Engineering performances, multi-scale/phase structure and sustainability. Journal of Cleaner Production, 2022, 341, 130929.	4.6	22
5	Pore structure of geopolymer materials and its correlations to engineering properties: A review. Construction and Building Materials, 2022, 328, 127064.	3.2	45
6	Waterproof geopolymer composites modified by hydrophobic particles and polydimethylsiloxane. Composites Part B: Engineering, 2022, 237, 109865.	5.9	28
7	Total recycling of low-quality urban-fringe construction and demolition waste towards the development of sustainable cement-free pervious concrete: The proof of concept. Journal of Cleaner Production, 2022, 352, 131464.	4.6	17
8	Anomalous matrix and interlayer pore structure of 3D-printed fiber-reinforced cementitious composites. Cement and Concrete Research, 2022, 157, 106829.	4.6	17
9	Morphological characteristics of calcium carbonate crystallization in CO₂ pre-cured aerated concrete. RSC Advances, 2022, 12, 14610-14620.	1.7	13
10	Empirical modeling of pore size distribution for rock materials with its impact on pore water freezing. Cold Regions Science and Technology, 2022, 201, 103619.	1.6	5
11	Ductile Concrete Columns Enabled by Multilayer Basalt TRM Shells: Confinement Mechanism and Modeling. Journal of Composites for Construction, 2022, 26, .	1.7	1
12	Chemicalâ€“physicalâ€“mechanical stability of MKG mortars under sulfate attacks. Advances in Cement Research, 2021, 33, 224-238.	0.7	1
13	CO₂ Pretreatment to Aerated Concrete with High-Volume Industry Wastes Enables a Sustainable Precast Concrete Industry. ACS Sustainable Chemistry and Engineering, 2021, 9, 3363-3375.	3.2	22
14	Characterizing the foam-shell microstructure of industrial ultra-light foamed concrete cast under different temperatures. Materials Characterization, 2021, 173, 110938.	1.9	11
15	Transmission micro-focus X-ray radiographic measurements towards in-situ tracing capillary imbibition fronts and paths in ultra-thin concrete slices. Measurement: Journal of the International Measurement Confederation, 2021, 175, 109141.	2.5	16
16	Quantifying the anomalous water absorption behavior of cement mortar in view of its physical sensitivity to water. Cement and Concrete Research, 2021, 143, 106395.	4.6	33
17	Effect of Size of Coarse Aggregate on Mechanical Properties of Metakaolin-Based Geopolymer Concrete and Ordinary Concrete. Materials, 2021, 14, 3316.	1.3	17
18	Visualization of mercury percolation in porous hardened cement paste by means of X-ray computed tomography. Cement and Concrete Composites, 2021, 122, 104111.	4.6	14

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19	Matrix wettability and mechanical properties of geopolymer cement-polydimethylsiloxane (PDMS) hybrids. Cement and Concrete Composites, 2021, 124, 104268.	4.6	24
20	Evaluation of Mechanical Properties of Concrete after Exposure to Elevated Temperatures Using Ultrasonic Pulse Velocity Measurement and a Split-Hopkinson Pressure Bar. Journal of Materials in Civil Engineering, 2021, 33, .	1.3	7
21	May the Piezoresistivity of GNP-Modified Cement Mortar Be Related to Its Fractal Structure?. Fractal and Fractional, 2021, 5, 148.	1.6	7
22	Micro indentation fracture of cement paste assessed by energy-based method: The method improvement and affecting factors. Construction and Building Materials, 2020, 231, 117136.	3.2	19
23	A comparative study on the influences of CNT and GNP on the piezoresistivity of cement composites. Materials Letters, 2020, 259, 126858.	1.3	40
24	BSEâ€ĿA reveals retardation mechanisms of polymer powders on cement hydration. Journal of the American Ceramic Society, 2020, 103, 3373-3389.	1.9	34
25	In-situ assessment of the water-penetration resistance of polymer modified cement mortars by Î¼-XCT, SEM and EDS. Cement and Concrete Composites, 2020, 114, 103821.	4.6	65
26	Compositional Dependence of Pore Structure, Strengthand Freezing-Thawing Resistance of Metakaolin-Based Geopolymers. Materials, 2020, 13, 2973.	1.3	15
27	Erosion of aerial lime and sticky rice mortars by cyclic wettingâ€“drying and dilute sulfate acid actions. Advances in Cement Research, 2020, 32, 343-357.	0.7	8
28	The effect of chemical aging on water permeability of white cement mortars in the context of solâ€“gel science. Cement and Concrete Composites, 2020, 114, 103812.	4.6	13
29	FRACTAL ANALYSIS OF STRESS-DEPENDENT DIFFUSIVITY OF POROUS CEMENTITIOUS MATERIALS. Fractals, 2020, 28, 2050117.	1.8	12
30	Waste ceramic powder as a pozzolanic supplementary filler of cement for developing sustainable building materials. Journal of Cleaner Production, 2020, 259, 120853.	4.6	76
31	Reassessment of mercury intrusion porosimetry for characterizing the pore structure of cement-based porous materials by monitoring the mercury entrapments with X-ray computed tomography. Cement and Concrete Composites, 2020, 113, 103726.	4.6	56
32	Thinner fillers, coarser pores? A comparative study of the pore structure alterations of cement composites by graphene oxides and graphene nanoplatelets. Composites Part A: Applied Science and Manufacturing, 2020, 130, 105750.	3.8	43
33	The state-of-art in characterizing the micro/nano-structure and mechanical properties of cement-based materials via scratch test. Construction and Building Materials, 2020, 254, 119255.	3.2	10
34	Is scratch test proper to characterize microstructure and mechanical properties of cement-based materials? The effects of loading level and routine. Cement and Concrete Research, 2020, 133, 106072.	4.6	8
35	Relationships between microstructure and transport properties in mortar containing recycled ceramic powder. Journal of Cleaner Production, 2020, 263, 121384.	4.6	34
36	A self-balanced electrochemical model for corrosion of reinforcing steel bar in considering the micro-environments in concrete. Construction and Building Materials, 2020, 254, 119116.	3.2	14

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37	Effects of nanoclay addition on the permeability and mechanical properties of ultra high toughness cementitious composites. Journal of Zhejiang University: Science A, 2020, 21, 992-1007.	1.3	3
38	Poroelastic Insights into Stress Dependence of Chloride Penetration into Saturated Cement-Based Porous Materials. Journal of Advanced Concrete Technology, 2019, 17, 350-364.	0.8	5
39	Pore Structure Damages in Cement-Based Materials by Mercury Intrusion: A Non-Destructive Assessment by X-Ray Computed Tomography. Materials, 2019, 12, 2220.	1.3	26
40	The dependence of capillary sorptivity and gas permeability on initial water content for unsaturated cement mortars. Cement and Concrete Composites, 2019, 104, 103356.	4.6	27
41	Fractal dimension of concrete incorporating silica fume and its correlations to pore structure, strength and permeability. Construction and Building Materials, 2019, 228, 116986.	3.2	138
42	Quasi-Liquid Layer on Ice and Its Effect on the Confined Freezing of Porous Materials. Crystals, 2019, 9, 250.	1.0	13
43	Discussion of â€œFreezing Strain Model for Estimating the Unfrozen Water Content of Saturated Rock under Low Temperatureâ€•by Shibing Huang, Quansheng Liu, Yanzhang Liu, Zuyang Ye, and Aiping Cheng. International Journal of Geomechanics, 2019, 19, .	1.3	3
44	Graphene nanoplatelets as an effective additive to tune the microstructures and piezoresistive properties of cement-based composites. Construction and Building Materials, 2019, 209, 665-678.	3.2	93
45	Tailoring the thermal and mechanical properties of lightweight cement-based composites by macro and micro fillers. Cement and Concrete Composites, 2019, 102, 169-184.	4.6	26
46	Tracing mercury entrapment in porous cement paste after mercury intrusion test by X-ray computed tomography and implications for pore structure characterization. Materials Characterization, 2019, 151, 203-215.	1.9	38
47	Capillary imbibition of ethanol in cement paste traced by X-ray computed tomography with CsCl-enhancing technique. Chemical Physics Letters, 2019, 726, 117-123.	1.2	17
48	Fractal Characterization of Non-Uniform Corrosion of Steel Bars in Concrete Beams after Accelerated depassivation and Seven-Year Natural Corrosion. Materials, 2019, 12, 3919.	1.3	7
49	Determining the micro-fracture properties of Antrim gas shale by an improved micro-indentation method. Journal of Natural Gas Science and Engineering, 2019, 62, 224-235.	2.1	30
50	Residual compressive strength of hardened OPC/CAC paste after fire exposure. Magazine of Concrete Research, 2019, 71, 548-556.	0.9	2
51	Rate-Dependent Bonding of Steel Reinforcement in Geopolymer Concrete. ACI Materials Journal, 2019, 116, .	0.3	0
52	Oven dying kinetics and status of cement-based porous materials for in-lab microstructure investigation. Advances in Cement Research, 2018, 30, 204-215.	0.7	14
53	Pore-size resolved water vapor adsorption kinetics of white cement mortars as viewed from proton NMR relaxation. Cement and Concrete Research, 2018, 105, 31-43.	4.6	143
54	Thermally insulating lightweight cement-based composites incorporating glass beads and nano-silica aerogels for sustainably energy-saving buildings. Energy and Buildings, 2018, 174, 97-110.	3.1	91

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55	Microfracture Characterization of Cement Paste at Early Age by Indentation Test. Journal of Materials in Civil Engineering, 2018, 30, .	1.3	11
56	Towards better characterizing thermal conductivity of cement-based materials: The effects of interfacial thermal resistance and inclusion size. Materials and Design, 2018, 157, 105-118.	3.3	29
57	Size matching effect on Wenzel wetting on fractal surfaces. Results in Physics, 2018, 10, 588-593.	2.0	18
58	A two-parameter stretched exponential function for dynamic water vapor sorption of cement-based porous materials. Materials and Structures/Materiaux Et Constructions, 2017, 50, 1.	1.3	18
59	Effect of pore shape on the thermal conductivity of partially saturated cement-based porous composites. Cement and Concrete Composites, 2017, 81, 87-96.	4.6	41
60	A simple method for estimating the size of nuclei on fractal surfaces. Journal of Crystal Growth, 2017, 475, 49-54.	0.7	9
61	A discussion of â€œApplication of nano-indentation methods to estimate nanoscale mechanical properties of shale reservoir rocksâ€•by K Liu, M Osatadhassan and B Bubach. Journal of Natural Gas Science and Engineering, 2017, 42, 187-189.	2.1	24
62	Waterproof ultra-high toughness cementitious composites containing nano reservoir silts. Construction and Building Materials, 2017, 155, 770-779.	3.2	12
63	A multi-scale micromechanical investigation on thermal conductivity of cement-based composites. IOP Conference Series: Materials Science and Engineering, 2017, 167, 012069.	0.3	7
64	The effect of water saturation degree on the electrical properties of cement-based porous material. Cement and Concrete Composites, 2016, 70, 35-47.	4.6	56
65	Heterogeneous Nucleation on Concave Rough Surfaces: Thermodynamic Analysis and Implications for Nucleation Design. Journal of Physical Chemistry C, 2016, 120, 10368-10380.	1.5	36
66	Effect of supercooling on the instantaneous freezing dilation of cement-based porous materials. Journal of Building Physics, 2016, 40, 101-124.	1.2	14
67	Characterizing frost damages of concrete with flatbed scanner. Construction and Building Materials, 2016, 102, 872-883.	3.2	27
68	A fractional kinetic model for drying of cement-based porous materials. Drying Technology, 2016, 34, 1231-1242.	1.7	18
69	Correlating the elastic properties of metakaolin-based geopolymer with its composition. Materials and Design, 2016, 95, 306-318.	3.3	54
70	Pore structure of cement pastes through NAD and MIP analysis. Advances in Cement Research, 2016, 28, 23-32.	0.7	39
71	Discussion of â€œEmpirical Estimation of Pore Size Distribution in Cement, Mortar, and Concreteâ€•by Fuyuan Gong, Dawei Zhang, Evdon Sicat, and Tamon Ueda. Journal of Materials in Civil Engineering, 2015, 27, .	1.3	4
72	Kinetics and Equilibrium Isotherms of Water Vapor Adsorption/Desorption in Cement-Based Porous Materials. Transport in Porous Media, 2015, 109, 469-493.	1.2	23

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73	Electrical Resistivity of Cement Pastes Undergoing Cyclic Freeze-Thaw Action. Journal of Materials in Civil Engineering, 2015, 27, 04014109.	1.3	14
74	Discussion of â€œNumerical simulation of moisture transport in concrete based on a pore size distribution modelâ€• Cement and Concrete Research, 2015, 73, 63-66.	4.6	3
75	Thermodynamics and Characteristics of Heterogeneous Nucleation on Fractal Surfaces. Journal of Physical Chemistry C, 2015, 119, 27426-27433.	1.5	64
76	Reaction and microstructure of cementâ€“fly-ash system. Materials and Structures/Materiaux Et Constructions, 2015, 48, 1703-1716.	1.3	25
77	Heterogeneous nucleation of ice from supercooled NaCl solution confined in porous cement paste. Journal of Crystal Growth, 2015, 409, 1-9.	0.7	23
78	Relative humidity and deterioration of concrete under freezeâ€“thaw load. Construction and Building Materials, 2014, 62, 18-27.	3.2	42
79	Freezing behavior of cement pastes saturated with NaCl solution. Construction and Building Materials, 2014, 59, 99-110.	3.2	54
80	Effect of self-desiccation on the pore structure of paste and mortar incorporating 70% GGBS. Construction and Building Materials, 2014, 51, 329-337.	3.2	70
81	Freezeâ€“thaw behavior of air entrained cement paste saturated with 10wt.% NaCl solution. Cold Regions Science and Technology, 2014, 102, 21-31.	1.6	34
82	Uniform Model for Moisture Transport in Porous Materials and Its Application to Concrete at Selected Chinese Regions. Journal of Materials in Civil Engineering, 2014, 26, 05014001.	1.3	8
83	Corrosion of rebar in concrete under cyclic freezeâ€“thaw and Chloride salt action. Construction and Building Materials, 2014, 53, 40-47.	3.2	58
84	Effect of moisture content on freezeâ€“thaw behavior of cement paste by electrical resistance measurements. Journal of Materials Science, 2014, 49, 4305-4314.	1.7	23
85	Characterizing pore structure of cement blend pastes using water vapor sorption analysis. Materials Characterization, 2014, 95, 72-84.	1.9	60
86	Surface fractal dimension: An indicator to characterize the microstructure of cement-based porous materials. Applied Surface Science, 2013, 282, 302-307.	3.1	167
87	Characterizing blended cement pastes under cyclic freezeâ€“thaw actions by electrical resistivity. Construction and Building Materials, 2013, 44, 477-486.	3.2	56
88	Water Removal by Freeze-Drying of Hardened Cement Paste. Drying Technology, 2013, 31, 67-71.	1.7	19
89	Elastic behavior of saturated porous materials under undrained freezing. Acta Mechanica Sinica/Lixue Xuebao, 2013, 29, 827-835.	1.5	24
90	Discussion: Relationship of moisture content with temperature and relative humidity in concrete. Magazine of Concrete Research, 2013, 65, 1494-1496.	0.9	7

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91	Analysis of pore structure, contact angle and pore entrapment of blended cement pastes from mercury porosimetry data. Cement and Concrete Composites, 2012, 34, 1053-1060.	4.6	109
92	Pore structure characterization of cement pastes blended with high-volume fly-ash. Cement and Concrete Research, 2012, 42, 194-204.	4.6	420
93	Determination of cement hydration and pozzolanic reaction extents for fly-ash cement pastes. Construction and Building Materials, 2012, 27, 560-569.	3.2	209
94	Effect of porosity on thermal expansion coefficient of cement pastes and mortars. Construction and Building Materials, 2012, 28, 468-475.	3.2	80
95	A study of freezing behavior of cementitious materials by poromechanical approach. International Journal of Solids and Structures, 2011, 48, 3267-3273.	1.3	100
96	Surface fractal analysis of pore structure of high-volume fly-ash cement pastes. Applied Surface Science, 2010, 257, 762-768.	3.1	160
97	A study of the behaviors of cement-based materials subject to freezing. , 2010, , .		5
98	Influence of freezing rate on cryo-damage of cementitious material. Journal of Zhejiang University: Science A, 2009, 10, 17-21.	1.3	6