

Kimberly E Kurtis

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

134
papers

3,511
citations

34
h-index

54
g-index

151
ext. papers

4,179
ext. citations

6
avg, IF

5.73
L-index

#	Paper	IF	Citations
134	Durability of kraft pulp fiber/cement composites to wet/dry cycling. <i>Cement and Concrete Composites</i> , 2005 , 27, 435-448	8.6	170
133	Time to failure for concrete exposed to severe sulfate attack. <i>Cement and Concrete Research</i> , 2003 , 33, 987-993	10.3	129
132	Chloride-induced corrosion resistance of high-strength stainless steels in simulated alkaline and carbonated concrete pore solutions. <i>Corrosion Science</i> , 2012 , 57, 241-253	6.8	113
131	Influence of TiO ₂ Nanoparticles on Early C ₃ S Hydration. <i>Journal of the American Ceramic Society</i> , 2010 , 93, 3399-3405	3.8	109
130	Supplementary cementitious materials for mitigating degradation of kraft pulp fiber-cement composites. <i>Cement and Concrete Research</i> , 2007 , 37, 1531-1543	10.3	94
129	Rapid evaluation of alkali-silica reactivity of aggregates using a nonlinear resonance spectroscopy technique. <i>Cement and Concrete Research</i> , 2010 , 40, 914-923	10.3	87
128	Influence of Portland cement composition on early age reactions with metakaolin. <i>Cement and Concrete Research</i> , 2007 , 37, 1411-1417	10.3	84
127	Effect of mechanical processing on sugar cane bagasse ash pozzolanicity. <i>Cement and Concrete Research</i> , 2017 , 97, 41-49	10.3	81
126	Microstructural and chemical effects of wet/dry cycling on pulp fiber/cement composites. <i>Cement and Concrete Research</i> , 2006 , 36, 1240-1251	10.3	81
125	Short-term tensile creep and shrinkage of ultra-high performance concrete. <i>Cement and Concrete Composites</i> , 2009 , 31, 147-152	8.6	78
124	Can nanotechnology be green? Comparing efficacy of nano and microparticles in cementitious materials. <i>Cement and Concrete Composites</i> , 2013 , 36, 16-24	8.6	70
123	Effects of concrete properties and nutrients on fungal colonization and fouling. <i>International Biodeterioration and Biodegradation</i> , 2009 , 63, 252-259	4.8	70
122	Proposed mechanism of C-S-H growth tested by soft X-ray microscopy. <i>Cement and Concrete Research</i> , 2000 , 30, 817-822	10.3	67
121	Assessment of binary and ternary blends of metakaolin and Class C fly ash for alkali-silica reaction mitigation in concrete. <i>Cement and Concrete Research</i> , 2010 , 40, 1664-1672	10.3	66
120	Characterization of ASR damage in concrete using nonlinear impact resonance acoustic spectroscopy technique. <i>NDT and E International</i> , 2011 , 44, 721-727	4.1	65
119	Influence of Metakaolin Surface Area on Properties of Cement-Based Materials. <i>Journal of Materials in Civil Engineering</i> , 2007 , 19, 762-771	3	64
118	X-ray microtomography (microCT) of the progression of sulfate attack of cement paste. <i>Cement and Concrete Research</i> , 2002 , 32, 1673-1675	10.3	62

117	Influence of Additions of Anatase TiO ₂ Nanoparticles on Early-Age Properties of Cement-Based Materials. <i>Transportation Research Record</i> , 2010 , 2141, 41-46	1.7	61
116	Characterization of entrained air voids in cement paste with scattered ultrasound. <i>NDT and E International</i> , 2006 , 39, 514-524	4.1	61
115	Utilization of Savannah Harbor river sediment as the primary raw material in production of fired brick. <i>Journal of Environmental Management</i> , 2012 , 113, 128-36	7.9	57
114	Creep of UHPC in tension and compression: Effect of thermal treatment. <i>Cement and Concrete Composites</i> , 2012 , 34, 493-502	8.6	55
113	Sulfate attack monitored by microCT and EDXRD: Influence of cement type, water-to-cement ratio, and aggregate. <i>Cement and Concrete Research</i> , 2006 , 36, 144-159	10.3	55
112	Characterization of biomass and high carbon content coal ash for productive reuse applications. <i>Fuel</i> , 2014 , 116, 438-447	7.1	54
111	Characterization of progressive microcracking in Portland cement mortar using nonlinear ultrasonics. <i>NDT and E International</i> , 2008 , 41, 112-118	4.1	54
110	Examination of the effects of LiOH, LiCl, and LiNO ₃ on alkali-silica reaction. <i>Cement and Concrete Research</i> , 2004 , 34, 1403-1415	10.3	54
109	Air-coupled detection of nonlinear Rayleigh surface waves in concrete: Application to microcracking detection. <i>NDT and E International</i> , 2014 , 67, 64-70	4.1	51
108	Advances in characterizing and understanding the microstructure of cementitious materials. <i>Cement and Concrete Research</i> , 2019 , 124, 105806	10.3	50
107	Effects of nano-TiO ₂ on properties of cement-based materials. <i>Magazine of Concrete Research</i> , 2013 , 65, 1293-1302	2	50
106	Assessing the efficiency of entrained air voids for freeze-thaw durability through modeling. <i>Cement and Concrete Research</i> , 2016 , 88, 43-59	10.3	49
105	Characterization of multi-scale porosity in cement paste by advanced ultrasonic techniques. <i>Cement and Concrete Research</i> , 2007 , 37, 38-46	10.3	46
104	Assessment of alkali-silica reaction damage through quantification of concrete nonlinearity. <i>Materials and Structures/Materiaux Et Constructions</i> , 2013 , 46, 497-509	3.4	41
103	Influence of set retarding admixtures on calcium sulfoaluminate cement hydration and property development. <i>Cement and Concrete Research</i> , 2018 , 104, 105-113	10.3	39
102	Monitoring and evaluation of self-healing in concrete using diffuse ultrasound. <i>NDT and E International</i> , 2013 , 57, 36-44	4.1	36
101	Effect of Nano-sized Titanium Dioxide on Early Age Hydration of Portland Cement 2009 , 267-273		36
100	Drying shrinkage in concrete assessed by nonlinear ultrasound. <i>Cement and Concrete Research</i> , 2017 , 92, 16-20	10.3	34

99	Quantitative evaluation of carbonation in concrete using nonlinear ultrasound. <i>Materials and Structures/Materiaux Et Constructions</i> , 2016 , 49, 399-409	3.4	34
98	Durability of thermomechanical pulp fiber-cement composites to wet/dry cycling. <i>Cement and Concrete Research</i> , 2005 , 35, 1646-1649	10.3	34
97	Effects of lithium nitrate admixture on early-age cement hydration. <i>Cement and Concrete Research</i> , 2008 , 38, 500-510	10.3	33
96	Alkali-activation potential of biomass-coal co-fired fly ash. <i>Cement and Concrete Composites</i> , 2016 , 73, 62-74	8.6	33
95	Photocatalytic cement exposed to nitrogen oxides: Effect of oxidation and binding. <i>Cement and Concrete Research</i> , 2014 , 60, 30-36	10.3	32
94	Theoretical and experimental study of the nonlinear resonance vibration of cementitious materials with an application to damage characterization. <i>Journal of the Acoustical Society of America</i> , 2011 , 130, 2728-37	2.2	32
93	Characterization of ultrasonic Rayleigh surface waves in asphaltic concrete. <i>NDT and E International</i> , 2009 , 42, 610-617	4.1	32
92	Effect of pore structure on salt crystallization damage of cement-based materials: Consideration of w/b and nanoparticle use. <i>Cement and Concrete Research</i> , 2017 , 98, 61-70	10.3	30
91	Service-life of concrete in freeze-thaw environments: Critical degree of saturation and calcium oxychloride formation. <i>Cement and Concrete Research</i> , 2019 , 122, 93-106	10.3	30
90	A probabilistic technique for entrained air void analysis in hardened concrete. <i>Cement and Concrete Research</i> , 2014 , 59, 16-23	10.3	29
89	New method for determination of absorption capacity of internal curing agents. <i>Cement and Concrete Research</i> , 2009 , 39, 65-68	10.3	29
88	Microwave reflection and dielectric properties of mortar subjected to compression force and cyclically exposed to water and sodium chloride solution. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2003 , 52, 111-118	5.2	28
87	Innovations in cement-based materials: Addressing sustainability in structural and infrastructure applications. <i>MRS Bulletin</i> , 2015 , 40, 1102-1109	3.2	27
86	Sustainable development and energy geotechnology [Potential roles for geotechnical engineering. <i>KSCE Journal of Civil Engineering</i> , 2011 , 15, 611-621	1.9	25
85	Molecular characterizations of microbial communities fouling painted and unpainted concrete structures. <i>International Biodeterioration and Biodegradation</i> , 2009 , 63, 30-40	4.8	25
84	In situ nonlinear ultrasonic technique for monitoring microcracking in concrete subjected to creep and cyclic loading. <i>Ultrasonics</i> , 2018 , 88, 64-71	3.5	24
83	Effect of processing variables on efficiency of eucalyptus pulps for internal curing. <i>Cement and Concrete Composites</i> , 2013 , 37, 126-135	8.6	24
82	Demonstration of microwave method for detection of alkali-silica reaction (ASR) gel in cement-based materials. <i>Cement and Concrete Research</i> , 2013 , 44, 1-7	10.3	23

81	Chemical additives to control expansion of alkali-silica reaction gel: proposed mechanisms of control. <i>Journal of Materials Science</i> , 2003 , 38, 2027-2036	4.3	23
80	Soft X-ray spectromicroscopy for in situ study of corrosion. <i>Corrosion Science</i> , 2000 , 42, 1327-1336	6.8	23
79	Characterization of elastic and time-dependent deformations in high performance lightweight concrete by image analysis. <i>Cement and Concrete Research</i> , 2009 , 39, 610-619	10.3	22
78	Numerical and Experimental Study of Crack Depth Measurement in Concrete Using Diffuse Ultrasound. <i>Journal of Nondestructive Evaluation</i> , 2013 , 32, 81-92	2.1	21
77	Examining cement-based materials by laser scanning confocal microscopy. <i>Cement and Concrete Composites</i> , 2003 , 25, 695-701	8.6	20
76	Quantification of NOx uptake in plain and TiO ₂ -doped cementitious materials. <i>Cement and Concrete Research</i> , 2019 , 122, 251-256	10.3	19
75	Key mechanisms controlling internal curing performance of natural fibers. <i>Cement and Concrete Research</i> , 2018 , 107, 206-220	10.3	19
74	Detecting alkali-silica reaction: A multi-physics approach. <i>Cement and Concrete Composites</i> , 2016 , 73, 123-135	8.6	19
73	An electromagnetic model for evaluating temporal water content distribution and movement in cyclically soaked mortar. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2004 , 53, 406-415	5.2	19
72	Cyclic Testing and Assessment of Columns Containing Recycled Concrete Debris. <i>ACI Structural Journal</i> , 2016 , 113,	1.7	19
71	Influence of Thermomechanical Pulp Fiber Compositions on Internal Curing of Cementitious Materials. <i>Journal of Materials in Civil Engineering</i> , 2012 , 24, 970-975	3	18
70	Characterization of dissipation losses in cement paste with diffuse ultrasound. <i>Mechanics Research Communications</i> , 2007 , 34, 289-294	2.2	18
69	Lignopolymer Superplasticizers for Low-CO ₂ Cements. <i>ACS Sustainable Chemistry and Engineering</i> , 2017 , 5, 4041-4049	8.3	16
68	Admixture compatibility in metakaolin/Portland-limestone cement blends. <i>Materials and Structures/Materiaux Et Constructions</i> , 2018 , 51, 1	3.4	16
67	Nanoparticles and Apparent Activation Energy of Portland Cement. <i>Journal of the American Ceramic Society</i> , 2014 , 97, 1534-1542	3.8	16
66	Aligned kraft pulp fiber sheets for reinforcing mortar. <i>Cement and Concrete Composites</i> , 2006 , 28, 161-172	8.6	16
65	High-strength self-curing low-shrinkage concrete for pavement applications. <i>International Journal of Pavement Engineering</i> , 2010 , 11, 333-342	2.6	15
64	Insights into delayed ettringite formation damage through acoustic nonlinearity. <i>Cement and Concrete Research</i> , 2017 , 95, 1-8	10.3	13

63	Comparison of Alkali-Silica Reaction Gel Behavior in Mortar at Microwave Frequencies. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2015 , 64, 1907-1915	5.2	13
62	Measuring Alkali-Silica Reaction (ASR) Microscale Damage in Large-Scale Concrete Slabs Using Nonlinear Rayleigh Surface Waves. <i>Journal of Nondestructive Evaluation</i> , 2017 , 36, 1	2.1	13
61	Proposed Acceleratory Effect of TiO ₂ Nanoparticles on Belite Hydration: Preliminary Results. <i>Journal of the American Ceramic Society</i> , 2012 , 95, 365-368	3.8	12
60	Application of Powers' model to modern portland and portland limestone cement pastes. <i>Journal of the American Ceramic Society</i> , 2017 , 100, 4219-4231	3.8	11
59	Estimation of Crack Depth in Concrete Using Diffuse Ultrasound: Validation in Cracked Concrete Beams. <i>Journal of Nondestructive Evaluation</i> , 2017 , 36, 1	2.1	11
58	Molecular Engineering of Superplasticizers for Metakaolin-Portland Cement Blends with Hierarchical Machine Learning. <i>Advanced Theory and Simulations</i> , 2019 , 2, 1800164	3.5	11
57	The role of hardwood pulp fibers in mitigation of early-age cracking. <i>Cement and Concrete Composites</i> , 2015 , 57, 84-93	8.6	11
56	Mitigation of alkali-silica expansion in pulp fiber-mortar composites. <i>Cement and Concrete Composites</i> , 2009 , 31, 677-681	8.6	11
55	Assessment of methods for optimising ternary blended concrete containing metakaolin. <i>Magazine of Concrete Research</i> , 2008 , 60, 499-510	2	11
54	Accelerated Test for Measuring Sulfate Resistance of Calcium Sulfoaluminate, Calcium Aluminate, and Portland Cements. <i>Journal of Materials in Civil Engineering</i> , 2001 , 13, 216-221	3	11
53	Crevice corrosion and environmentally assisted cracking of high-strength duplex stainless steels in simulated concrete pore solutions. <i>Construction and Building Materials</i> , 2019 , 203, 366-376	6.7	10
52	Wideband microwave characterization of alkali-silica reaction (ASR) gel in cement-based materials. <i>Materials Letters</i> , 2013 , 90, 159-161	3.3	10
51	Micro- and Nanoscale Characterization of Effect of Interfacial Transition Zone on Tensile Creep of Ultra-High-Performance Concrete. <i>Transportation Research Record</i> , 2010 , 2141, 82-88	1.7	10
50	Characterization of elastic and time-dependent deformations in normal strength and high performance concrete by image analysis. <i>Cement and Concrete Research</i> , 2007 , 37, 1265-1277	10.3	10
49	Laser scanning confocal microscopy for in situ monitoring of alkali-silica reaction. <i>Journal of Microscopy</i> , 2004 , 213, 149-57	1.9	9
48	Analysis of Portland cement mortar under impact: A combined material characterization, micromechanics modeling, and dynamic testing approach. <i>Cement and Concrete Research</i> , 2015 , 73, 190-206	10.3	8
47	Nonlinear Rayleigh surface waves to characterize microscale damage due to alkali-silica reaction (ASR) in full-scale, nuclear concrete specimens. <i>Construction and Building Materials</i> , 2018 , 186, 1114-1118	6.7	8
46	Evaluation of microwave reflection properties of cyclically soaked mortar based on a semiempirical electromagnetic model. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2005 , 54, 2049-2060	5.2	8

45	Effect of Moisture State on Mechanical Behavior and Microstructure of Pulp Fiber-Cement Mortars. <i>Journal of Materials in Civil Engineering</i> , 2007 , 19, 691-699	3	7
44	Composite Fibers for External Reinforcement of Natural Stone. <i>Journal of Composites for Construction</i> , 1997 , 1, 116-119	3.3	6
43	Phase composition depth profiles using spatially resolved energy dispersive X-ray diffraction. <i>Journal of Applied Crystallography</i> , 2004 , 37, 967-976	3.8	6
42	NOx sequestration by calcium aluminate cementitious materials. <i>Cement and Concrete Research</i> , 2021 , 142, 106381	10.3	6
41	Nano- and Microstructural Characterization of Portland Limestone Cement Pastes 2015 , 87-92		5
40	Early age volume changes in metakaolin geopolymers: Insights from molecular simulations and experiments. <i>Cement and Concrete Research</i> , 2021 , 144, 106428	10.3	5
39	Probabilistic evaluation of concrete freeze-thaw design guidance. <i>Materials and Structures/Materiaux Et Constructions</i> , 2018 , 51, 1	3.4	5
38	Empirical Multiphase Dielectric Mixing Model for Cement-Based Materials Containing Alkali-Silica Reaction Gel. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2017 , 66, 2428-2436	5.2	4
37	Microwave NDE method for health-monitoring of concrete structures containing alkali-silica reaction (ASR) gel 2014 ,		4
36	Early age hydration of rice hull ash cement examined by transmission soft X-ray microscopy. <i>Cement and Concrete Research</i> , 2003 , 33, 509-515	10.3	4
35	Durability of photocatalytic cement subjected to nitrogen dioxide and wet-dry cycling. <i>Advances in Cement Research</i> , 2020 , 32, 139-147	1.8	4
34	The role of composition in the structure and water-binding in alkali-silica reaction sol and gel. <i>Cement and Concrete Research</i> , 2019 , 124, 105814	10.3	3
33	AIR VOID CHARACTERIZATION THROUGH ULTRASONIC ATTENUATION USING AN IMMERSION PROCEDURE 2010 ,		3
32	Micromechanical Model and Associated Validation for Dynamic Failure of Brittle Materials Containing Pores and Slit-Like Flaws. <i>Journal of Engineering Mechanics - ASCE</i> , 2015 , 141, 04015040	2.4	2
31	Evaluation of nonlinear impact resonance spectroscopy method for detecting delayed ettringite formation 2015 ,		2
30	Nondestructive detection and characterization of carbonation in concrete 2014 ,		2
29	Characterization of Entrained Air Voids Using Scattered Ultrasound. <i>AIP Conference Proceedings</i> , 2006 ,	0	2
28	Microwave analysis of mortar prepared with type I/II, III and V cement and subjected to cyclical chloride exposure. <i>AIP Conference Proceedings</i> , 2002 ,	0	2

27	Sulfate deterioration of cement-based materials examined by x-ray microtomography 2004 ,		2
26	Tensile Creep Test of Fiber-Reinforced Ultra-High Performance Concrete. <i>Journal of Testing and Evaluation</i> , 2010 , 38, 102666	1	2
25	Cheminformatics for accelerated design of chemical admixtures. <i>Cement and Concrete Research</i> , 2020 , 136, 106173	10.3	2
24	Dissolution kinetics of trapped air in a spherical void: Modeling the long-term saturation of cementitious materials. <i>Cement and Concrete Research</i> , 2020 , 130, 105996	10.3	1
23	Insights into alkali-silica reaction damage in mortar through acoustic nonlinearity 2016 ,		1
22	Nondestructive estimation of depth of surface opening cracks in concrete beams 2014 ,		1
21	Investigating the Potential for Producing Fired Bricks from Savannah Harbor Dredged Sediment 2011 ,		1
20	Crack depth measurement in concrete using diffuse ultrasound 2012 ,		1
19	Multi-scale investigation of the effect of thermal treatment on the tensile creep of ultra-high performance concrete: preliminary assessment. <i>International Journal of Materials and Structural Integrity</i> , 2009 , 3, 187	0.3	1
18	CHARACTERIZATION OF AIR VOIDS IN FRESH CEMENT PASTE THROUGH ULTRASONIC NONDESTRUCTIVE TESTING. <i>AIP Conference Proceedings</i> , 2008 ,	0	1
17	Microcrack Identification in Cement-Based Materials Using Nonlinear Acoustic Waves. <i>AIP Conference Proceedings</i> , 2007 ,	0	1
16	Mapping the Distribution of Corrosion Products in Cement Exposed to Sulfate using Energy Dispersive X-ray Diffraction. <i>Materials Research Society Symposia Proceedings</i> , 2001 , 678, 531		1
15	Assessment of Air Entrainment in Fresh Cement Paste Using Ultrasonic Nondestructive Testing. <i>Journal of ASTM International</i> , 2010 , 7, 102452		1
14	The impact of sulfate- and sulfide-bearing sand on delayed ettringite formation. <i>Cement and Concrete Composites</i> , 2022 , 125, 104323	8.6	1
13	Durability of Photocatalytic Cement after Nitric Oxide-Wet-Dry Cycling. <i>Journal of the Korea Institute of Building Construction</i> , 2014 , 14, 359-368		1
12	Beneficiation of ponded coal ash through chemi-mechanical grinding. <i>Fuel</i> , 2021 , 299, 120892	7.1	1
11	Screening candidate supplementary cementitious materials under standard and accelerated curing through time-series surface resistivity measurements and change-point detection. <i>Cement and Concrete Research</i> , 2021 , 148, 106538	10.3	1
10	Designing corrosion resistant systems with alternative cementitious materials. <i>Cement</i> , 2022 , 8, 100029	2	1

9	Effect of sulfates on passivation in alkaline environments. <i>Proceedings of Institution of Civil Engineers: Construction Materials</i> , 2016 , 169, 39-43	0.8	o
8	How important are electricity demand charges for cost estimates? An industrial electrification case study. <i>Electricity Journal</i> , 2021 , 34, 107011	2.6	o
7	Predicting Surface Resistivity on Concretes Containing Potential Supplementary Cementitious Materials Cured at Nonelevated and Elevated Temperatures. <i>Advances in Civil Engineering Materials</i> , 2022 , 11, 20210157	0.7	o
6	Water-to-cement Ratio of Calcium Sulfoaluminate Belite Cements: Hydration, Setting Time, Strength Development, and Porosity. <i>Cement</i> , 2022 , 100032	2	o
5	High Spatial Resolution Soft X-Ray Microscopy and Microanalysis of Thick and Hydrated Materials. <i>Microscopy and Microanalysis</i> , 1998 , 4, 352-353	0.5	
4	Beneficial use of Savannah River dredged material in large-scale geotechnical applications. <i>Japanese Geotechnical Society Special Publication</i> , 2021 , 9, 245-248	0.2	
3	Recent Developments in High-Strength Stainless Steels for Corrosion Mitigation in Prestressed Concrete. <i>Advances in Civil Engineering Materials</i> , 2014 , 3, 20140017	0.7	
2	Addressing Key Challenges in MK-PLC Blends at Early Ages: Workability, Slump Retention, and Heat of Hydration. <i>RILEM Bookseries</i> , 2018 , 500-506	0.5	
1	Use of a non-collinear wave mixing technique to image internal microscale damage in concrete. <i>Journal of Applied Physics</i> , 2022 , 131, 145102	2.5	