

Kimberly E Kurtis

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/2994924/kimberly-e-kurtis-publications-by-year.pdf>

Version: 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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	The impact of sulfate- and sulfide-bearing sand on delayed ettringite formation. <i>Cement and Concrete Composites</i> , 2022 , 125, 104323	8.6	1
133	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	
132	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	0
131	Designing corrosion resistant systems with alternative cementitious materials. <i>Cement</i> , 2022 , 8, 100029	2	1
130	Water-to-cement Ratio of Calcium Sulfoaluminate Belite Cements: Hydration, Setting Time, Strength Development, and Porosity. <i>Cement</i> , 2022 , 100032	2	0
129	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	
128	NOx sequestration by calcium aluminate cementitious materials. <i>Cement and Concrete Research</i> , 2021 , 142, 106381	10.3	6
127	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
126	Beneficiation of ponded coal ash through chemi-mechanical grinding. <i>Fuel</i> , 2021 , 299, 120892	7.1	1
125	How important are electricity demand charges for cost estimates? An industrial electrification case study. <i>Electricity Journal</i> , 2021 , 34, 107011	2.6	0
124	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
123	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
122	Cheminformatics for accelerated design of chemical admixtures. <i>Cement and Concrete Research</i> , 2020 , 136, 106173	10.3	2
121	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
120	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
119	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
118	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

117	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
116	Advances in characterizing and understanding the microstructure of cementitious materials. <i>Cement and Concrete Research</i> , 2019 , 124, 105806	10.3	50
115	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
114	Admixture compatibility in metakaolin-portland-limestone cement blends. <i>Materials and Structures/Materiaux Et Constructions</i> , 2018 , 51, 1	3.4	16
113	Key mechanisms controlling internal curing performance of natural fibers. <i>Cement and Concrete Research</i> , 2018 , 107, 206-220	10.3	19
112	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
111	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
110	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	
109	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
108	Probabilistic evaluation of concrete freeze-thaw design guidance. <i>Materials and Structures/Materiaux Et Constructions</i> , 2018 , 51, 1	3.4	5
107	Insights into delayed ettringite formation damage through acoustic nonlinearity. <i>Cement and Concrete Research</i> , 2017 , 95, 1-8	10.3	13
106	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
105	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
104	Drying shrinkage in concrete assessed by nonlinear ultrasound. <i>Cement and Concrete Research</i> , 2017 , 92, 16-20	10.3	34
103	Effect of mechanical processing on sugar cane bagasse ash pozzolanicity. <i>Cement and Concrete Research</i> , 2017 , 97, 41-49	10.3	81
102	Lignopolymer Superplasticizers for Low-CO ₂ Cements. <i>ACS Sustainable Chemistry and Engineering</i> , 2017 , 5, 4041-4049	8.3	16
101	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
100	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

99	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
98	Effect of sulfates on passivation in alkaline environments. <i>Proceedings of Institution of Civil Engineers: Construction Materials</i> , 2016 , 169, 39-43	0.8	0
97	Detecting alkali-silica reaction: A multi-physics approach. <i>Cement and Concrete Composites</i> , 2016 , 73, 123-135	8.6	19
96	Insights into alkali-silica reaction damage in mortar through acoustic nonlinearity 2016 ,		1
95	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
94	Quantitative evaluation of carbonation in concrete using nonlinear ultrasound. <i>Materials and Structures/Materiaux Et Constructions</i> , 2016 , 49, 399-409	3.4	34
93	Cyclic Testing and Assessment of Columns Containing Recycled Concrete Debris. <i>ACI Structural Journal</i> , 2016 , 113,	1.7	19
92	Alkali-activation potential of biomass-coal co-fired fly ash. <i>Cement and Concrete Composites</i> , 2016 , 73, 62-74	8.6	33
91	Comparison of AlkaliSilica Reaction Gel Behavior in Mortar at Microwave Frequencies. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2015 , 64, 1907-1915	5.2	13
90	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
89	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
88	Nano- and Microstructural Characterization of Portland Limestone Cement Pastes 2015 , 87-92		5
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	Evaluation of nonlinear impact resonance spectroscopy method for detecting delayed ettringite formation 2015 ,		2
85	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
84	Photocatalytic cement exposed to nitrogen oxides: Effect of oxidation and binding. <i>Cement and Concrete Research</i> , 2014 , 60, 30-36	10.3	32
83	Air-coupled detection of nonlinear Rayleigh surface waves in concreteApplication to microcracking detection. <i>NDT and E International</i> , 2014 , 67, 64-70	4.1	51
82	A probabilistic technique for entrained air void analysis in hardened concrete. <i>Cement and Concrete Research</i> , 2014 , 59, 16-23	10.3	29

81	Nondestructive estimation of depth of surface opening cracks in concrete beams 2014 ,		1
80	Microwave NDE method for health-monitoring of concrete structures containing alkali-silica reaction (ASR) gel 2014 ,		4
79	Nondestructive detection and characterization of carbonation in concrete 2014 ,		2
78	Nanoparticles and Apparent Activation Energy of Portland Cement. <i>Journal of the American Ceramic Society</i> , 2014 , 97, 1534-1542	3.8	16
77	Characterization of biomass and high carbon content coal ash for productive reuse applications. <i>Fuel</i> , 2014 , 116, 438-447	7.1	54
76	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
75	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	
74	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
73	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
72	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
71	Monitoring and evaluation of self-healing in concrete using diffuse ultrasound. <i>NDT and E International</i> , 2013 , 57, 36-44	4.1	36
70	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
69	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
68	Wideband microwave characterization of alkali-silica reaction (ASR) gel in cement-based materials. <i>Materials Letters</i> , 2013 , 90, 159-161	3.3	10
67	Effects of nano-TiO ₂ on properties of cement-based materials. <i>Magazine of Concrete Research</i> , 2013 , 65, 1293-1302	2	50
66	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
65	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
64	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

63	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
62	Creep of UHPC in tension and compression: Effect of thermal treatment. <i>Cement and Concrete Composites</i> , 2012 , 34, 493-502	8.6	55
61	Crack depth measurement in concrete using diffuse ultrasound 2012 ,		1
60	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
59	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
58	Sustainable development and energy geotechnology [Potential roles for geotechnical engineering. <i>KSCE Journal of Civil Engineering</i> , 2011 , 15, 611-621	1.9	25
57	Investigating the Potential for Producing Fired Bricks from Savannah Harbor Dredged Sediment 2011 ,		1
56	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
55	AIR VOID CHARACTERIZATION THROUGH ULTRASONIC ATTENUATION USING AN IMMERSION PROCEDURE 2010 ,		3
54	High-strength self-curing low-shrinkage concrete for pavement applications. <i>International Journal of Pavement Engineering</i> , 2010 , 11, 333-342	2.6	15
53	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
52	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
51	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
50	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
49	Assessment of Air Entrainment in Fresh Cement Paste Using Ultrasonic Nondestructive Testing. <i>Journal of ASTM International</i> , 2010 , 7, 102452		1
48	Tensile Creep Test of Fiber-Reinforced Ultra-High Performance Concrete. <i>Journal of Testing and Evaluation</i> , 2010 , 38, 102666	1	2
47	Effect of Nano-sized Titanium Dioxide on Early Age Hydration of Portland Cement 2009 , 267-273		36
46	Short-term tensile creep and shrinkage of ultra-high performance concrete. <i>Cement and Concrete Composites</i> , 2009 , 31, 147-152	8.6	78

45	Mitigation of alkali-silica expansion in pulp fiber-mortar composites. <i>Cement and Concrete Composites</i> , 2009 , 31, 677-681	8.6	11
44	Characterization of ultrasonic Rayleigh surface waves in asphaltic concrete. <i>NDT and E International</i> , 2009 , 42, 610-617	4.1	32
43	Molecular characterizations of microbial communities fouling painted and unpainted concrete structures. <i>International Biodeterioration and Biodegradation</i> , 2009 , 63, 30-40	4.8	25
42	Effects of concrete properties and nutrients on fungal colonization and fouling. <i>International Biodeterioration and Biodegradation</i> , 2009 , 63, 252-259	4.8	70
41	New method for determination of absorption capacity of internal curing agents. <i>Cement and Concrete Research</i> , 2009 , 39, 65-68	10.3	29
40	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
39	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
38	Assessment of methods for optimising ternary blended concrete containing metakaolin. <i>Magazine of Concrete Research</i> , 2008 , 60, 499-510	2	11
37	CHARACTERIZATION OF AIR VOIDS IN FRESH CEMENT PASTE THROUGH ULTRASONIC NONDESTRUCTIVE TESTING. <i>AIP Conference Proceedings</i> , 2008 ,	0	1
36	Characterization of progressive microcracking in Portland cement mortar using nonlinear ultrasonics. <i>NDT and E International</i> , 2008 , 41, 112-118	4.1	54
35	Effects of lithium nitrate admixture on early-age cement hydration. <i>Cement and Concrete Research</i> , 2008 , 38, 500-510	10.3	33
34	Microcrack Identification in Cement-Based Materials Using Nonlinear Acoustic Waves. <i>AIP Conference Proceedings</i> , 2007 ,	0	1
33	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
32	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
31	Influence of Portland cement composition on early age reactions with metakaolin. <i>Cement and Concrete Research</i> , 2007 , 37, 1411-1417	10.3	84
30	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
29	Characterization of dissipation losses in cement paste with diffuse ultrasound. <i>Mechanics Research Communications</i> , 2007 , 34, 289-294	2.2	18
28	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

27	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
26	Characterization of entrained air voids in cement paste with scattered ultrasound. <i>NDT and E International</i> , 2006 , 39, 514-524	4.1	61
25	Characterization of Entrained Air Voids Using Scattered Ultrasound. <i>AIP Conference Proceedings</i> , 2006 ,	0	2
24	Aligned kraft pulp fiber sheets for reinforcing mortar. <i>Cement and Concrete Composites</i> , 2006 , 28, 161-172	26	16
23	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
22	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
21	Durability of kraft pulp fiber/cement composites to wet/dry cycling. <i>Cement and Concrete Composites</i> , 2005 , 27, 435-448	8.6	170
20	Durability of thermomechanical pulp fiber-cement composites to wet/dry cycling. <i>Cement and Concrete Research</i> , 2005 , 35, 1646-1649	10.3	34
19	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
18	Laser scanning confocal microscopy for in situ monitoring of alkali-silica reaction. <i>Journal of Microscopy</i> , 2004 , 213, 149-57	1.9	9
17	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
16	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
15	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
14	Sulfate deterioration of cement-based materials examined by x-ray microtomography 2004 ,		2
13	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
12	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
11	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
10	Time to failure for concrete exposed to severe sulfate attack. <i>Cement and Concrete Research</i> , 2003 , 33, 987-993	10.3	129

9	Examining cement-based materials by laser scanning confocal microscopy. <i>Cement and Concrete Composites</i> , 2003 , 25, 695-701	8.6	20
8	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
7	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
6	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
5	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
4	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
3	Soft X-ray spectromicroscopy for in situ study of corrosion. <i>Corrosion Science</i> , 2000 , 42, 1327-1336	6.8	23
2	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	
1	Composite Fibers for External Reinforcement of Natural Stone. <i>Journal of Composites for Construction</i> , 1997 , 1, 116-119	3.3	6