Muhammed Basheer

List of Publications by Year
in descending order

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137 papers	4,393 citations	94433 37 h-index	123424 61 g-index
143 all docs	143 docs citations	143 times ranked	3198 citing authors

#	Article	IF	Citations
1	Using calciumâ€rich precursors to improve the earlyâ€compressive strength of alkaliâ€activated slag cement at low temperature. Structural Concrete, 2022, 23, 2221-2232.	3.1	1
2	External Sulphate Attack on Alkali-Activated Slag and Slag/Fly Ash Concrete. Buildings, 2022, 12, 94.	3.1	5
3	The long-term failure mechanisms of alkali-activated slag mortar exposed to wet-dry cycles of sodium sulphate. Cement and Concrete Composites, 2021, 116, 103893.	10.7	26
4	Understanding the aqueous phases of alkali-activated slag paste under water curing. Advances in Cement Research, 2021, 33, 59-73.	1.6	13
5	Influence of carbonation on the bound chloride concentration in different cementitious systems. Construction and Building Materials, 2021, 302, 124171.	7.2	14
6	Characterisation of temporal variations of alkali-activated slag cement property using microstructure features and electrical responses. Construction and Building Materials, 2020, 261, 119884.	7.2	4
7	In-situ monitoring of early hydration of clinker and Portland cement with optical fiber excitation Raman spectroscopy. Cement and Concrete Composites, 2020, 112, 103664.	10.7	15
8	Expansion of CEM I and slag-blended cement mortars exposed to combined chloride-sulphate environments. Cement and Concrete Research, 2019, 123, 105794.	11.0	29
9	Effectiveness of two field methods of saturating near surface concrete on the water permeability of in situ concrete. MATEC Web of Conferences, 2019, 289, 06004.	0.2	0
10	The role of calcium stearate on regulating activation to form stable, uniform and flawless reaction products in alkali-activated slag cement. Cement and Concrete Composites, 2019, 103, 242-251.	10.7	20
11	Suitability of alkali activated slag/fly ash (AA-GGBS/FA) concretes for chloride environments: Characterisation based on mix design and compliance testing. Construction and Building Materials, 2019, 216, 612-621.	7.2	43
12	Influence of axial loads on CO2 and Clâ^' transport in concrete phases: Paste, mortar and ITZ. Construction and Building Materials, 2019, 204, 875-883.	7.2	20
13	Design of a steady-state in situ test to determine the air permeability coefficient of covercrete. Construction and Building Materials, 2019, 195, 671-681.	7.2	2
14	Slag hydration and chloride binding in slag cements exposed to a combined chloride-sulphate solution. Construction and Building Materials, 2019, 195, 238-248.	7.2	39
15	Electrical Resistance to Monitor Carbonation and Chloride Ingress. ACI Materials Journal, 2019, 116, .	0.2	0
16	Characterisation of pore structure development of alkali-activated slag cement during early hydration using electrical responses. Cement and Concrete Composites, 2018, 89, 139-149.	10.7	49
17	Raman spectroscopic investigation of Friedel's salt. Cement and Concrete Composites, 2018, 86, 306-314.	10.7	63
18	A Raman spectroscopy based optical fibre system for detecting carbonation profile of cementitious materials. Sensors and Actuators B: Chemical, 2018, 257, 635-649.	7.8	20

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19	Alkali activated slag concretes designed for a desired slump, strength and chloride diffusivity. Construction and Building Materials, 2018, 190, 191-199.	7.2	84
20	Effectiveness of preconditioning regimes for assessing water permeability of high performance concrete. Cement and Concrete Composites, 2018, 94, 126-135.	10.7	4
21	Challenges and opportunities for assessing transport properties of high-performance concrete. Revista ALCONPAT, 2018, 8, 246-263.	0.3	1
22	Use of Two-Pressure-Head Method to Assess Water Permeability of Structural Concrete. ACI Materials Journal, 2018, 115, .	0.2	1
23	Characterisation of carbonated Portland cement paste with optical fibre excitation Raman spectroscopy. Construction and Building Materials, 2017, 135, 369-376.	7.2	18
24	A testing methodology for performance-based specification. Journal of Structural Integrity and Maintenance, 2017, 2, 78-88.	1.5	6
25	Influence of combined carbonation and chloride ingress regimes on rate of ingress and redistribution of chlorides in concretes. Construction and Building Materials, 2017, 140, 173-183.	7.2	71
26	Establishment of a preconditioning regime for air permeability and sorptivity of alkali-activated slag concrete. Cement and Concrete Composites, 2016, 73, 19-28.	10.7	55
27	Influence of service loading and the resulting micro-cracks on chloride resistance of concrete. Construction and Building Materials, 2016, 108, 56-66.	7.2	91
28	Chloride ingress into marine exposed concrete: A comparison of empirical- and physically- based models. Cement and Concrete Composites, 2016, 72, 133-145.	10.7	59
29	Chloride transport and the resulting corrosion of steel bars in alkali activated slag concretes. Materials and Structures/Materiaux Et Constructions, 2016, 49, 3663-3677.	3.1	106
30	Shape stabilised phase change materials based on a high melt viscosity HDPE and paraffin waxes. Applied Energy, 2016, 162, 68-82.	10.1	123
31	Principles of the Performance-Based Approach for Concrete Durability. RILEM State-of-the-Art Reports, 2016, , 107-131.	0.7	5
32	Progress of Carbonation in Chloride Contaminated Concretes. , 2016, , .		0
33	Effectiveness of Vacuum Saturation Preconditioning Regime for Assessing Water Permeability of High Performance Concrete. , 2016, , .		0
34	A durability performance-index for concrete: developments in a novel test method. International Journal of Structural Engineering, 2015, 6, 2.	0.4	9
35	Repeatability and Reliability of New Air and Water Permeability Tests for Assessing the Durability of High-Performance Concretes. Journal of Materials in Civil Engineering, 2015, 27, .	2.9	10
36	Conductivity/activation energy relationships for cement-based materials undergoing cyclic thermal excursions. Journal of Materials Science, 2015, 50, 1129-1140.	3.7	35

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37	The performance of concrete exposed to marine environments: Predictive modelling and use of laboratory/on site test methods. Construction and Building Materials, 2015, 93, 831-840.	7.2	20
38	Assessment of the effectiveness of the guard ring in obtaining a uni-directional flow in an in situ water permeability test. Materials and Structures/Materiaux Et Constructions, 2015, 48, 167-183.	3.1	9
39	Fluorescence based fibre optic pH sensor for the pH 10â€“13 range suitable for corrosion monitoring in concrete structures. Sensors and Actuators B: Chemical, 2014, 191, 498-507.	7.8	122
40	Engineering performance of a new siloxane-based corrosion inhibitor. Materials and Structures/Materiaux Et Constructions, 2014, 47, 1531-1543.	3.1	7
41	Use of nanocrystal seeding chemical admixture in improving Portland cement strength development: application for precast concrete industry. Advances in Applied Ceramics, 2014, 113, 478-484.	1.1	31
42	Development of a new in situ test method to measure the air permeability of high performance concretes. NDT and E International, 2014, 64, 30-40.	3.7	44
43	Shape stabilised phase change materials (SSPCMs): High density polyethylene and hydrocarbon waxes. , 2014, , .		0
44	Experimental research on concrete strength prediction by Limpet pull-off test in China. International Journal of Structural Engineering, 2014, 5, 1.	0.4	3
45	Comparative Study of Alkali-Activated Fly Ash Manufactured Under Pulsed Microwave Curing and Thermal Oven Curing. , 2014, , .		8
46	Influence of Micro and Macro Cracks Due to Sustained Loading on Chloride-Induced Corrosion of Reinforced Concrete Beams. , 2014, , .		4
47	Monitoring the development of microcracks in reinforced concrete caused by sustained loading and chloride induced corrosion. , 2014, , 603-609.		0
48	Changing climate, changing process: implications for salt transportation and weathering within building sandstones in the UK. Environmental Earth Sciences, 2013, 69, 1225-1235.	2.7	21
49	Maturity testing of lightweight self-compacting and vibrated concretes. Construction and Building Materials, 2013, 47, 118-125.	7.2	35
50	Hydration and properties of sodium sulfate activated slag. Cement and Concrete Composites, 2013, 37, 20-29.	10.7	238
51	Exposure of mortars to cyclic chloride ingress and carbonation. Advances in Cement Research, 2013, 25, 3-11.	1.6	38
52	UKâ€“China Science Bridge â€“ Sustainable solutions for the built environment. Construction and Building Materials, 2013, 47, 20-28.	7.2	2
53	Investigation of moisture condition and Autoclam sensitivity on air permeability measurements for both normal concrete and high performance concrete. Construction and Building Materials, 2013, 48, 306-314.	7.2	32
54	Characterization of physio-chemical processes and hydration kinetics in concretes containing supplementary cementitious materials using electrical property measurements. Cement and Concrete Research, 2013, 50, 26-33.	11.0	41

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55	Commissioning and Evaluation of a Fiber-Optic Sensor System for Bridge Monitoring. IEEE Sensors Journal, 2013, 13, 2555-2562.	4.7	30
56	Monitoring the cementitious materials subjected to sulfate attack with optical fiber excitation Raman spectroscopy. Optical Engineering, 2013, 52, 104107.	1.0	14
57	Influence of Different European Cements on the Hydration of Cover-Zone Concrete during the Curing and Postcuring Periods. Journal of Materials in Civil Engineering, 2013, 25, 1335-1343.	2.9	11
58	Rapid construction of arch bridges using the innovative FlexiArch. Proceedings of the Institution of Civil Engineers: Bridge Engineering, 2013, 166, 143-153.	0.6	6
59	Monitoring and repair of an impact damaged prestressed bridge. Proceedings of the Institution of Civil Engineers: Bridge Engineering, 2013, 166, 16-29.	0.6	17
60	Retrofit versus new-build house using life-cycle assessment. Proceedings of the Institution of Civil Engineers: Engineering Sustainability, 2013, 166, 122-137.	0.7	18
61	Preliminary research on monitoring the durability of concrete subjected to sulfate attack with optical fibre Raman spectroscopy. Proceedings of SPIE, 2013, , .	0.8	0
62	The use and meanings of â€˜time of wetnessâ€™ in understanding building stone decay. Quarterly Journal of Engineering Geology and Hydrogeology, 2013, 46, 469-476.	1.4	24
63	Fiber-Optic Strain Sensor System With Temperature Compensation for Arch Bridge Condition Monitoring. IEEE Sensors Journal, 2012, 12, 1470-1476.	4.7	35
64	Building Stone Condition Monitoring Using Specially Designed Compensated Optical Fiber Humidity Sensors. IEEE Sensors Journal, 2012, 12, 1011-1017.	4.7	29
65	Study of reliability of fibre Bragg grating fibre optic strain sensors for field-test applications. Sensors and Actuators A: Physical, 2012, 185, 8-16.	4.1	30
66	Developments in Performance Monitoring of Concrete Exposed to Extreme Environments. Journal of Infrastructure Systems, 2012, 18, 167-175.	1.8	37
67	Hydration Characteristics of Cement Paste Containing Supplementary Cementitious Materials. Arabian Journal for Science and Engineering, 2012, 37, 535-544.	1.1	10
68	Chemical and mechanical stability of sodium sulfate activated slag after exposure to elevated temperature. Cement and Concrete Research, 2012, 42, 333-343.	11.0	188
69	Near-surface temperature cycling of stone and its implications for scales of surface deterioration. Geomorphology, 2011, 130, 76-82.	2.6	51
70	Arch-bridge Lift Process Monitoring by Using Packaged Optical Fibre Strain Sensors with Temperature Compensation. Journal of Physics: Conference Series, 2011, 307, 012029.	0.4	1
71	Effect of Bauxsol on properties of cement pastes. Proceedings of Institution of Civil Engineers: Construction Materials, 2011, 164, 241-250.	1.1	5
72	Effects of seawater-neutralised bauxite refinery residue on properties of concrete. Cement and Concrete Composites, 2011, 33, 668-679.	10.7	17

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73	Preliminary Development and Evaluation of Fiber-Optic Chemical Sensors. Journal of Materials in Civil Engineering, 2011, 23, 1200-1210.	2.9	16
74	Mechanical and durability properties of high performance concretes containing supplementary cementitious materials. Construction and Building Materials, 2010, 24, 292-299.	7.2	204
75	An investigation into the behaviour of concrete containing seawater-neutralised bauxite refinery residues in silage effluent. Biosystems Engineering, 2010, 106, 433-439.	4.3	6
76	Optical fibre humidity sensor design for building stone condition monitoring. , 2010, , .		2
77	Use of Fiber Optic and Electrical Resistance Sensors for Monitoring Moisture Movement in Building Stones Subjected to Simulated Climatic Conditions. Journal of ASTM International, 2010, 7, 1-11.	0.2	4
78	Carbonation and pH in Mortars Manufactured with Supplementary Cementitious Materials. Journal of Materials in Civil Engineering, 2009, 21, 217-225.	2.9	64
79	Properties of fly ash concrete modified with hydrated lime and silica fume. Construction and Building Materials, 2009, 23, 3233-3239.	7.2	182
80	Structural health monitoring - better solutions using fiber optic sensors?. , 2009, , .		1
81	Optical Fiber Refractive Index Sensor for Chloride Ion Monitoring. IEEE Sensors Journal, 2009, 9, 525-532.	4.7	35
82	In Situ Cross-Calibration of In-Fiber Bragg Grating and Electrical Resistance Strain Gauges for Structural Monitoring Using an Extensometer. IEEE Sensors Journal, 2009, 9, 1355-1360.	4.7	17
83	Design and evaluation of optical fibre sensors in civil engineering applications for Structural Health Monitoring. , 2009, , .		0
84	Development and Longer Term In Situ Evaluation of Fiber-Optic Sensors for Monitoring of Structural Concrete. IEEE Sensors Journal, 2009, 9, 1537-1545.	4.7	20
85	Monitoring of Corrosion in Structural Reinforcing Bars: Performance Comparison Using In Situ Fiber-Optic and Electric Wire Strain Gauge Systems. IEEE Sensors Journal, 2009, 9, 1494-1502.	4.7	29
86	Real-time monitoring of covercrete response to environmental action. International Journal of Modelling, Identification and Control, 2009, 7, 219.	0.2	0
87	State-of-the-art applications of the pull-off test in civil engineering. International Journal of Structural Engineering, 2009, 1, 93.	0.4	14
88	The influence of reusing â€˜Formtexâ€™ controlled permeability formwork on strength and durability of concrete. Materials and Structures/Materiaux Et Constructions, 2008, 41, 1363-1375.	3.1	24
89	Sustainable bridge construction through innovative advances. Proceedings of the Institution of Civil Engineers: Bridge Engineering, 2008, 161, 183-188.	0.6	13
90	Long period grating-based refractive index sensor for chloride concentration measurement. , 2008, , .		0

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91	New Test Method to Obtain pH Profiles due to Carbonation of Concretes Containing Supplementary Cementitious Materials. Journal of Materials in Civil Engineering, 2007, 19, 936-946.	2.9	69
92	Advances in the in-situ assessment of construction materials. , 2007, , 591-605.		0
93	Corrosion induced strain monitoring through fibre optic sensors. Journal of Physics: Conference Series, 2007, 85, 012017.	0.4	5
94	Fibre Bragg grating sensors for reinforcement corrosion monitoring in civil engineering structures. Journal of Physics: Conference Series, 2007, 76, 012018.	0.4	9
95	Round-Robin Test on methods for determining chloride transport parameters in concrete. Materials and Structures/Materiaux Et Constructions, 2006, 39, 955-990.	3.1	46
96	Strength and durability of concrete with ash aggregate. Proceedings of the Institution of Civil Engineers: Structures and Buildings, 2005, 158, 191-199.	0.8	9
97	â€˜PERMITâ€™ ion migration test for measuring the chloride ion transport of concrete on site. NDT and E International, 2005, 38, 219-229.	3.7	33
98	Microstructural and mechanical properties of nickel-base plasma sprayed coatings on steel and cast iron substrates. Surface and Coatings Technology, 2005, 197, 177-184.	4.8	43
99	Grading of construction aggregate through machine vision: Results and prospects. Computers in Industry, 2005, 56, 905-917.	9.9	6
100	Obtaining progressive chloride profiles in cementitious materials. Construction and Building Materials, 2005, 19, 666-673.	7.2	52
101	Potential use of spent mushroom compost ash as an activator for pulverised fuel ash. Construction and Building Materials, 2005, 19, 698-702.	7.2	13
102	Strength and drying shrinkage properties of concrete containing furnace bottom ash as fine aggregate. Construction and Building Materials, 2005, 19, 691-697.	7.2	132
103	Influence of coarse aggregate on the permeation, durability and the microstructure characteristics of ordinary Portland cement concrete. Construction and Building Materials, 2005, 19, 682-690.	7.2	130
104	A machine vision approach to the grading of crushed aggregate. Machine Vision and Applications, 2005, 16, 229-235.	2.7	14
105	Field monitoring of electrical conductivity of cover-zone concrete. Cement and Concrete Composites, 2005, 27, 809-817.	10.7	47
106	Comparative testâ€”Part IIâ€”Comparative test of â€œcovermetersâ€• Materials and Structures/Materiaux Et Constructions, 2005, 38, 907-911.	3.1	3
107	Optical fibre sensor systems: new solutions for structural monitoring applications?. Proceedings of SPIE, 2005, 5826, 412.	0.8	1
108	Recommendation of RILEM TC 189-NEC "Non-destructive evaluation of the concrete cover": Comparative test - Part I: Comparative test of 'penetrability' methods. Materials and Structures/Materiaux Et Constructions, 2005, 38, 895-906.	3.1	7

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109	Strength and durability of concrete with ash aggregate. Proceedings of the Institution of Civil Engineers: Structures and Buildings, 2005, 158, 191-199.	0.8	0
110	Fibre optic chemical sensor systems for internal concrete condition monitoring. , 2004, 5502, 334.		17
111	Fiber optic chemical sensor systems for monitoring pH changes in concrete. , 2004, , .		15
112	Modifications of phases, microstructure and hardness of Ni-based alloy plasma coatings due to thermal treatment. Surface and Coatings Technology, 2004, 185, 18-29.	4.8	30
113	<title>Machine vision methods for the grading of crushed aggregate</title>. , 2003, 4877, 264.		1
114	<title>Benchmarking segmentation results using a Markov model and a Bayes information criterion</title>. , 2003, , .		2
115	Influence of furnace bottom ash on properties of concrete. Proceedings of the Institution of Civil Engineers: Structures and Buildings, 2003, 156, 85-92.	0.8	27
116	Influence of furnace bottom ash on properties of concrete. Proceedings of the Institution of Civil Engineers: Structures and Buildings, 2003, 156, 85-92.	0.8	6
117	Modelling the rapid retreat of building sandstones: a case study from a polluted maritime environment. Geological Society Special Publication, 2002, 205, 347-362.	1.3	24
118	Depth-related variation in conductivity to study cover-zone concrete during wetting and drying. Cement and Concrete Composites, 2002, 24, 415-426.	10.7	37
119	Monitoring electrical resistance of concretes containing alternative cementitious materials to assess their resistance to chloride penetration. Cement and Concrete Composites, 2002, 24, 437-449.	10.7	94
120	Effect of relative humidity and air permeability on prediction of the rate of carbonation of concrete. Proceedings of the Institution of Civil Engineers: Structures and Buildings, 2001, 146, 319-326.	0.8	52
121	Near-surface moisture gradients and in situ permeation tests. Construction and Building Materials, 2001, 15, 105-114.	7.2	67
122	Nearâ€“surface sensors for condition monitoring of cover-zone concrete. Construction and Building Materials, 2001, 15, 115-124.	7.2	43
123	Permeation Analysis. , 2001, , 658-737.		19
124	Effect of relative humidity and air permeability on prediction of the rate of carbonation of concrete. Proceedings of the Institution of Civil Engineers: Structures and Buildings, 2001, 146, 319-326.	0.8	5
125	Effectiveness of In Situ Moisture Preconditioning Methods for Concrete. Journal of Materials in Civil Engineering, 2000, 12, 131-138.	2.9	8
126	Protection provided by surface treatments against chloride induced corrosion. Materials and Structures/Materiaux Et Constructions, 1998, 31, 459-464.	3.1	40

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127	PROTECTIVE QUALITIES OF SURFACE TREATMENTS FOR CONCRETE.. Proceedings of the Institution of Civil Engineers: Structures and Buildings, 1997, 122, 339-346.	0.8	9
128	Testing the effectiveness of commonly-used site curing regimes. Materiaux Et Constructions, 1997, 30, 53-60.	0.3	4
129	Surface treatments for concrete: assessmentmethods and reported performance. Construction and Building Materials, 1997, 11, 413-429.	7.2	157
130	Predictive models for deterioration of concrete structures. Construction and Building Materials, 1996, 10, 27-37.	7.2	94
131	Effects of three durability enhancing products on some physical properties of near surface concrete. Construction and Building Materials, 1995, 9, 267-272.	7.2	61
132	Clam' Tests for Measuring in-Situ Permeation Properties of Concrete. Nondestructive Testing and Evaluation, 1995, 12, 53-73.	2.1	32
133	FACTORIAL EXPERIMENTAL DESIGN FOR CONCRETE DURABILITY RESEARCH.. Proceedings of the Institution of Civil Engineers: Structures and Buildings, 1994, 104, 449-462.	0.8	10
134	TECHNICAL NOTE. A BRIEF REVIEW OF METHODS FOR MEASURING THE PERMEATION PROPERTIES OF CONCRETE IN SITU.. Proceedings of the Institution of Civil Engineers: Structures and Buildings, 1993, 99, 74-83.	0.8	22
135	Research on the Correlation between Autoclam Permeability Test and Seepage Height Method. Applied Mechanics and Materials, 0, 438-439, 135-140.	0.2	1
136	Use of Fiber Optic and Electrical Resistance Sensors for Monitoring Moisture Movement in Building Stones Subjected to Simulated Climatic Conditions. , 0, , 179-179-15.		1
137	Gaussian Segmentation of BSE Images to Assess the Porosity of Concrete. , 0, , .		0