

# Hong Wong

## List of Publications by Year in descending order

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85  
papers

5,778  
citations

61984

43  
h-index

74163

75  
g-index

86  
all docs

86  
docs citations

86  
times ranked

3680  
citing authors

#	ARTICLE	IF	CITATIONS
1	New advancements, challenges and opportunities of multi-storey modular buildings – A state-of-the-art review. <i>Engineering Structures</i> , 2019, 183, 883-893.	5.3	345
2	Pore segmentation of cement-based materials from backscattered electron images. <i>Cement and Concrete Research</i> , 2006, 36, 1083-1090.	11.0	323
3	Recycling of landfill wastes (tyres, plastics and glass) in construction – A review on global waste generation, performance, application and future opportunities. <i>Resources, Conservation and Recycling</i> , 2021, 173, 105745.	10.8	216
4	On the penetration of corrosion products from reinforcing steel into concrete due to chloride-induced corrosion. <i>Corrosion Science</i> , 2010, 52, 2469-2480.	6.6	208
5	Influence of the interfacial transition zone and microcracking on the diffusivity, permeability and sorptivity of cement-based materials after drying. <i>Magazine of Concrete Research</i> , 2009, 61, 571-589.	2.0	202
6	Self-sealing of cracks in concrete using superabsorbent polymers. <i>Cement and Concrete Research</i> , 2016, 79, 194-208.	11.0	188
7	Hydrophobic concrete using waste paper sludge ash. <i>Cement and Concrete Research</i> , 2015, 70, 9-20.	11.0	171
8	The steel–concrete interface. <i>Materials and Structures/Materiaux Et Constructions</i> , 2017, 50, 1.	3.1	170
9	Clogging in permeable concrete: A review. <i>Journal of Environmental Management</i> , 2017, 193, 221-233.	7.8	163
10	Modelling the diffusivity of mortar and concrete using a three-dimensional mesostructure with several aggregate shapes. <i>Computational Materials Science</i> , 2013, 78, 63-73.	3.0	159
11	Efficiency of calcined kaolin and silica fume as cement replacement material for strength performance. <i>Cement and Concrete Research</i> , 2005, 35, 696-702.	11.0	158
12	Influence of aggregate size and volume fraction on shrinkage induced micro-cracking of concrete and mortar. <i>Cement and Concrete Research</i> , 2010, 40, 85-93.	11.0	158
13	Potential of superabsorbent polymer for self-sealing cracks in concrete. <i>Advances in Applied Ceramics</i> , 2010, 109, 296-302.	1.1	147
14	Effect of entrained air voids on the microstructure and mass transport properties of concrete. <i>Cement and Concrete Research</i> , 2011, 41, 1067-1077.	11.0	133
15	Comparison of uniform and non-uniform corrosion induced damage in reinforced concrete based on a Gaussian description of the corrosion layer. <i>Corrosion Science</i> , 2011, 53, 2803-2814.	6.6	118
16	Composite railway sleepers – Recent developments, challenges and future prospects. <i>Composite Structures</i> , 2015, 134, 158-168.	5.8	116
17	Influence of drying-induced microcracking and related size effects on mass transport properties of concrete. <i>Cement and Concrete Research</i> , 2015, 68, 35-48.	11.0	116
18	Determining the water–cement ratio, cement content, water content and degree of hydration of hardened cement paste: Method development and validation on paste samples. <i>Cement and Concrete Research</i> , 2009, 39, 957-965.	11.0	114

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19	Performance of Limestone Calcined Clay Cement (LC3) with various kaolinite contents with respect to chloride transport. <i>Materials and Structures/Materiaux Et Constructions</i> , 2018, 51, 1.	3.1	112
20	Effect of alkalinity and calcium concentration of pore solution on the swelling and ionic exchange of superabsorbent polymers in cement paste. <i>Cement and Concrete Composites</i> , 2018, 88, 150-164.	10.7	109
21	Transport properties of concrete after drying-wetting regimes to elucidate the effects of moisture content, hysteresis and microcracking. <i>Cement and Concrete Research</i> , 2017, 98, 136-154.	11.0	108
22	Assessing the influence of ITZ on the steady-state chloride diffusivity of concrete using a numerical model. <i>Cement and Concrete Research</i> , 2009, 39, 805-813.	11.0	104
23	The effect of the steel-concrete interface on chloride-induced corrosion initiation in concrete: a critical review by RILEM TC 262-SCI. <i>Materials and Structures/Materiaux Et Constructions</i> , 2019, 52, 1.	3.1	98
24	Sustainable infrastructure development through use of calcined excavated waste clay as a supplementary cementitious material. <i>Journal of Cleaner Production</i> , 2017, 168, 1180-1192.	9.3	95
25	Optimal design for epoxy polymer concrete based on mechanical properties and durability aspects. <i>Construction and Building Materials</i> , 2020, 232, 117229.	7.2	92
26	Properties of epoxy polymer concrete matrix: Effect of resin-to-filler ratio and determination of optimal mix for composite railway sleepers. <i>Construction and Building Materials</i> , 2016, 124, 287-300.	7.2	76
27	Near surface characteristics of concrete containing supplementary cementing materials. <i>Cement and Concrete Composites</i> , 2004, 26, 883-889.	10.7	69
28	Strength estimation model for high-strength concrete incorporating metakaolin and silica fume. <i>Cement and Concrete Research</i> , 2005, 35, 688-695.	11.0	67
29	Estimating transport properties of mortars using image analysis on backscattered electron images. <i>Cement and Concrete Research</i> , 2006, 36, 1556-1566.	11.0	64
30	Patch microstructure in cement-based materials: Fact or artefact?. <i>Cement and Concrete Research</i> , 2006, 36, 990-997.	11.0	61
31	Computational investigation of capillary absorption in concrete using a three-dimensional mesoscale approach. <i>Computational Materials Science</i> , 2014, 87, 54-64.	3.0	61
32	Simulating the effect of microcracks on the diffusivity and permeability of concrete using a three-dimensional model. <i>Computational Materials Science</i> , 2016, 119, 130-143.	3.0	61
33	Static behaviour of glass fibre reinforced novel composite sleepers for mainline railway track. <i>Engineering Structures</i> , 2021, 229, 111627.	5.3	58
34	Estimating the permeability of cement pastes and mortars using image analysis and effective medium theory. <i>Cement and Concrete Research</i> , 2012, 42, 476-483.	11.0	57
35	Bond behaviour of composite sandwich panel and epoxy polymer matrix: Taguchi design of experiments and theoretical predictions. <i>Construction and Building Materials</i> , 2017, 145, 76-87.	7.2	56
36	Flexural and shear behaviour of layered sandwich beams. <i>Construction and Building Materials</i> , 2018, 173, 429-442.	7.2	54

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37	Euclidean Distance Mapping for computing microstructural gradients at interfaces in composite materials. <i>Cement and Concrete Research</i> , 2006, 36, 1091-1097.	11.0	52
38	Determining the slag fraction, water/binder ratio and degree of hydration in hardened cement pastes. <i>Cement and Concrete Research</i> , 2014, 56, 171-181.	11.0	51
39	Evaluation of an Innovative Composite Railway Sleeper for a Narrow-Gauge Track under Static Load. <i>Journal of Composites for Construction</i> , 2018, 22, .	3.2	48
40	3D imaging of cement-based materials at submicron resolution by combining laser scanning confocal microscopy with serial sectioning. <i>Journal of Microscopy</i> , 2015, 258, 151-169.	1.8	47
41	Anomalous water absorption in cement-based materials caused by drying shrinkage induced microcracks. <i>Cement and Concrete Research</i> , 2019, 115, 90-104.	11.0	47
42	Monte Carlo simulation of electron-solid interactions in cement-based materials. <i>Cement and Concrete Research</i> , 2006, 36, 1076-1082.	11.0	46
43	Short-term flexural behaviour of concrete filled pultruded GFRP cellular and tubular sections with pin-eye connections for modular retaining wall construction. <i>Composite Structures</i> , 2018, 206, 1-10.	5.8	46
44	3D pore structure and mass transport properties of blended cementitious materials. <i>Cement and Concrete Research</i> , 2019, 117, 23-37.	11.0	46
45	Modular assembly of water-retaining walls using GFRP hollow profiles: Components and connection performance. <i>Composite Structures</i> , 2018, 194, 1-11.	5.8	44
46	Effects of ultraviolet solar radiation on the properties of particulate-filled epoxy based polymer coating. <i>Polymer Degradation and Stability</i> , 2020, 181, 109352.	5.8	44
47	Defining clogging potential for permeable concrete. <i>Journal of Environmental Management</i> , 2018, 220, 44-53.	7.8	43
48	Effect of elevated in-service temperature on the mechanical properties and microstructure of particulate-filled epoxy polymers. <i>Polymer Degradation and Stability</i> , 2019, 170, 108994.	5.8	40
49	High-strength clogging resistant permeable pavement. <i>International Journal of Pavement Engineering</i> , 2021, 22, 271-282.	4.4	40
50	Representative elementary volume (REV) of cementitious materials from three-dimensional pore structure analysis. <i>Cement and Concrete Research</i> , 2017, 102, 187-202.	11.0	39
51	Investigation on the physical, mechanical and microstructural properties of epoxy polymer matrix with crumb rubber and short fibres for composite railway sleepers. <i>Construction and Building Materials</i> , 2021, 295, 123700.	7.2	39
52	Ageing of particulate-filled epoxy resin under hygrothermal conditions. <i>Construction and Building Materials</i> , 2020, 249, 118846.	7.2	38
53	Effect of fire-retardant ceram powder on the properties of phenolic-based GFRP composites. <i>Composites Part B: Engineering</i> , 2018, 155, 414-424.	12.0	37
54	Effect of beam orientation on the static behaviour of phenolic core sandwich composites with different shear span-to-depth ratios. <i>Composite Structures</i> , 2017, 168, 292-304.	5.8	31

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55	Analysis of autogenous shrinkage-induced microcracks in concrete from 3D images. Cement and Concrete Research, 2021, 144, 106416.	11.0	29
56	Graphene coated sand for smart cement composites. Construction and Building Materials, 2022, 346, 128313.	7.2	26
57	Mass transport properties of mature wasteform grouts. Advances in Cement Research, 2007, 19, 35-46.	1.6	25
58	Estimating the original cement content and water-cement ratio of Portland cement concrete and mortar using backscattered electron microscopy. Magazine of Concrete Research, 2013, 65, 693-706.	2.0	25
59	3D Monte Carlo simulation of backscattered electron signal variation across pore-solid boundaries in cement-based materials. Cement and Concrete Research, 2016, 89, 320-331.	11.0	23
60	3D imaging techniques for characterising microcracks in cement-based materials. Cement and Concrete Research, 2021, 140, 106309.	11.0	21
61	Synergistic effects of hygrothermal conditions and solar ultraviolet radiation on the properties of structural particulate-filled epoxy polymer coatings. Construction and Building Materials, 2021, 277, 122336.	7.2	20
62	Effect of autogenous shrinkage on microcracking and mass transport properties of concrete containing supplementary cementitious materials. Cement and Concrete Research, 2021, 150, 106611.	11.0	20
63	Characterising aggregate surface geometry in thin-sections of mortar and concrete. Cement and Concrete Research, 2008, 38, 1227-1231.	11.0	19
64	Characterisation of "Hadley" grains by confocal microscopy. Cement and Concrete Research, 2006, 36, 1483-1489.	11.0	18
65	Structural and hydrological design of permeable concrete pavements. Case Studies in Construction Materials, 2021, 15, e00564.	1.7	18
66	Influence of reinforcement spacers on mass transport properties and durability of concrete structures. Cement and Concrete Research, 2016, 87, 31-44.	11.0	17
67	Effect of confining pressure and microcracks on mass transport properties of concrete. Advances in Applied Ceramics, 2014, 113, 485-495.	1.1	15
68	Roles of Waste Glass and the Effect of Process Parameters on the Properties of Sustainable Cement and Geopolymer Concrete – A State-of-the-Art Review. Polymers, 2021, 13, 3935.	4.5	15
69	Wick action in mature mortars with binary cements containing slag or silica fume – The relation between chloride and moisture transport properties under non-saturated conditions. Cement and Concrete Research, 2018, 111, 94-103.	11.0	12
70	Low-carbon cements: Potential for low-grade calcined clays to form supplementary cementitious materials. Cleaner Materials, 2022, 5, 100099.	5.1	12
71	Effect of simulated hygrothermal environment on the flexural and interlaminar shear strength of particulate-filled epoxy-coated GFRP composites. Construction and Building Materials, 2022, 339, 127687.	7.2	10
72	Bending and Shear Behaviour of Waste Rubber Concrete-Filled FRP Tubes with External Flanges. Polymers, 2021, 13, 2500.	4.5	9

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73	Failure analysis and the effect of material properties on the screw pull-out behaviour of polymer composite sleeper materials. <i>Engineering Failure Analysis</i> , 2021, 128, 105577.	4.0	9
74	Influence of supplementary cementitious materials on microstructure and transport properties of spacer-concrete interface. <i>Cement and Concrete Research</i> , 2021, 149, 106561.	11.0	8
75	Real-time monitoring of carbonation of hardened cement pastes using Raman microscopy. <i>Journal of Microscopy</i> , 2022, 286, 126-133.	1.8	7
76	Methods for characterising the steel-concrete interface to enhance understanding of reinforcement corrosion: a critical review by RILEM TC 262-SCI. <i>Materials and Structures/Materiaux Et Constructions</i> , 2022, 55, 1.	3.1	7
77	Combined effects of vertical spacers and segregation on mass transport properties of reinforced concrete. <i>Materials and Structures/Materiaux Et Constructions</i> , 2020, 53, 1.	3.1	6
78	Microscopy techniques for determining water-cement (w/c) ratio in hardened concrete: a round-robin assessment. <i>Materials and Structures/Materiaux Et Constructions</i> , 2020, 53, 1.	3.1	5
79	Reply to the discussion by Sidney Diamond of the paper "Patch microstructure in cement-based materials: Fact or artefact?". <i>Cement and Concrete Research</i> , 2006, 36, 1002-1003.	11.0	4
80	CHARACTERISING THE PORE STRUCTURE OF CEMENT-BASED MATERIALS USING BACKSCATTERED ELECTRON AND CONFOCAL MICROSCOPY. , 2006, , 495-502.		4
81	Optimising confocal Raman microscopy for spectral mapping of cement-based materials. <i>Materials and Structures/Materiaux Et Constructions</i> , 2022, 55, 1.	3.1	3
82	Analysis of cement paste and aggregate content of concrete using micro X-ray fluorescence. <i>Magazine of Concrete Research</i> , 2022, 74, 889-904.	2.0	2
83	Developing circular concrete: Acid treatment of waste concrete fines. <i>Journal of Cleaner Production</i> , 2022, 365, 132615.	9.3	2
84	Modelling the Effect of Microcracks on the Transport Properties of Concrete in Three Dimensions. , 2015, , .		1
85	Improving bond strength and mass transport properties of spacer-concrete interface with textured spacers. <i>Materials and Structures/Materiaux Et Constructions</i> , 2021, 54, 1.	3.1	0