Tung-Chai Ling

List of Publications by Year
in descending order

145 papers	8,796 citations	34100 52 h-index	46795 89 g-index
145 all docs	145 docs citations	145 times ranked	4962 citing authors

#	Article	IF	Citations
1	Durability of recycled aggregate concrete â€“ A review. Cement and Concrete Composites, 2018, 89, 251-259.	10.7	484
2	Characteristics of steel slags and their use in cement and concreteâ€”A review. Resources, Conservation and Recycling, 2018, 136, 187-197.	10.8	455
3	Use of phase change materials for thermal energy storage in concrete: An overview. Construction and Building Materials, 2013, 46, 55-62.	7.2	299
4	A review on concrete surface treatment Part I: Types and mechanisms. Construction and Building Materials, 2017, 132, 578-590.	7.2	296
5	Properties of concrete prepared with waste tyre rubber particles of uniform and varying sizes. Journal of Cleaner Production, 2015, 91, 288-296.	9.3	266
6	CO2 mineralization and utilization by alkaline solid wastes for potential carbon reduction. Nature Sustainability, 2020, 3, 399-405.	23.7	182
7	Performance of mortar prepared with recycled concrete aggregate enhanced by CO2 and pozzolan slurry. Cement and Concrete Composites, 2018, 86, 130-138.	10.7	173
8	A critical review of waste glass powder â€“ Multiple roles of utilization in cement-based materials and construction products. Journal of Environmental Management, 2019, 242, 440-449.	7.8	162
9	Use of steel slag as sustainable construction materials: A review of accelerated carbonation treatment. Resources, Conservation and Recycling, 2021, 173, 105740.	10.8	162
10	A review on surface treatment for concrete â€“ Part 2: Performance. Construction and Building Materials, 2017, 133, 81-90.	7.2	161
11	Potential use of brick waste as alternate concrete-making materials: A review. Journal of Cleaner Production, 2018, 195, 226-239.	9.3	154
12	Effects of crushed glass cullet sizes, casting methods and pozzolanic materials on ASR of concrete blocks. Construction and Building Materials, 2011, 25, 2611-2618.	7.2	152
13	Potential of CO 2 sequestration through construction and demolition (C&D) wasteâ€”An overview. Journal of CO2 Utilization, 2017, 20, 234-242.	6.8	151
14	Utilization of recycled glass derived from cathode ray tube glass as fine aggregate in cement mortar. Journal of Hazardous Materials, 2011, 192, 451-456.	12.4	150
15	Reactivity activation of waste coal gangue and its impact on the properties of cement-based materials â€“ A review. Construction and Building Materials, 2020, 234, 117424.	7.2	147
16	Management and recycling of waste glass in concrete products: Current situations in Hong Kong. Resources, Conservation and Recycling, 2013, 70, 25-31.	10.8	140
17	Properties of architectural mortar prepared with recycled glass with different particle sizes. Materials & Design, 2011, 32, 2675-2684.	5.1	138
18	Recycling of wastes for value-added applications in concrete blocks: An overview. Resources, Conservation and Recycling, 2018, 138, 298-312.	10.8	138

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19	A comparative study on the feasible use of recycled beverage and CRT funnel glass as fine aggregate in cement mortar. Journal of Cleaner Production, 2012, 29-30, 46-52.	9.3	136
20	A review of microencapsulated and composite phase change materials: Alteration of strength and thermal properties of cement-based materials. Renewable and Sustainable Energy Reviews, 2019, 110, 467-484.	16.4	135
21	Feasibility of using recycled glass in architectural cement mortars. Cement and Concrete Composites, 2011, 33, 848-854.	10.7	134
22	Use of recycled CRT funnel glass as fine aggregate in dry-mixed concrete paving blocks. Journal of Cleaner Production, 2014, 68, 209-215.	9.3	131
23	Lightweight foamed concrete as a promising avenue for incorporating waste materials: A review. Resources, Conservation and Recycling, 2021, 164, 105103.	10.8	126
24	Functions and impacts of plastic/rubber wastes as eco-friendly aggregate in concrete â€“ A review. Construction and Building Materials, 2020, 240, 117869.	7.2	124
25	Influence of recycled glass content and curing conditions on the properties of self-compacting concrete after exposure to elevated temperatures. Cement and Concrete Composites, 2012, 34, 265-272.	10.7	107
26	Utilizing recycled cathode ray tube funnel glass sand as river sand replacement in the high-density concrete. Journal of Cleaner Production, 2013, 51, 184-190.	9.3	102
27	Current development of geopolymer as alternative adsorbent for heavy metal removal. Environmental Technology and Innovation, 2020, 18, 100684.	6.1	102
28	Nano-TiO2-based architectural mortar for NO removal and bacteria inactivation: Influence of coating and weathering conditions. Cement and Concrete Composites, 2013, 36, 101-108.	10.7	97
29	Effects of recycled fine glass aggregates on the properties of dryâ€“mixed concrete blocks. Construction and Building Materials, 2013, 38, 638-643.	7.2	96
30	Feasible use of recycled CRT funnel glass as heavyweight fine aggregate in barite concrete. Journal of Cleaner Production, 2012, 33, 42-49.	9.3	91
31	Utilizing high volumes quarry wastes in the production of lightweight foamed concrete. Construction and Building Materials, 2017, 151, 441-448.	7.2	91
32	Prediction of density and compressive strength for rubberized concrete blocks. Construction and Building Materials, 2011, 25, 4303-4306.	7.2	89
33	Effects of compaction method and rubber content on the properties of concrete paving blocks. Construction and Building Materials, 2012, 28, 164-175.	7.2	88
34	Photocatalytic NO x degradation of concrete surface layers intermixed and spray-coated with nano-TiO 2 : Influence of experimental factors. Cement and Concrete Composites, 2017, 83, 279-289.	10.7	88
35	Effects of particle size of treated CRT funnel glass on properties of cement mortar. Materials and Structures/Materiaux Et Constructions, 2013, 46, 25-34.	3.1	85
36	Global perspective on application of controlled low-strength material (CLSM) for trench backfilling â€“ An overview. Construction and Building Materials, 2018, 158, 535-548.	7.2	85

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37	Recycling difficult-to-treat e-waste cathode-ray-tube glass as construction and building materials: A critical review. Renewable and Sustainable Energy Reviews, 2018, 81, 595-604.	16.4	85
38	Utilization of recycled cathode ray tubes glass in cement mortar for X-ray radiation-shielding applications. Journal of Hazardous Materials, 2012, 199-200, 321-327.	12.4	82
39	Overview of supplementary cementitious materials usage in lightweight aggregate concrete. Construction and Building Materials, 2017, 139, 403-418.	7.2	81
40	Valorization of waste powders from cement-concrete life cycle: A pathway to circular future. Journal of Cleaner Production, 2020, 268, 122358.	9.3	77
41	Thermal efficiency and durability performances of paraffinic phase change materials with enhanced thermal conductivity â€“ A review. Thermochimica Acta, 2019, 673, 198-210.	2.7	71
42	Effects of recycled glass on properties of architectural mortar before and after exposure to elevated temperatures. Journal of Cleaner Production, 2015, 101, 158-164.	9.3	68
43	TiO2-based self-compacting glass mortar: Comparison of photocatalytic nitrogen oxide removal and bacteria inactivation. Building and Environment, 2012, 53, 1-6.	6.9	67
44	Utilization of recycled concrete fines and powders to produce alkali-activated slag concrete blocks. Journal of Cleaner Production, 2020, 267, 122115.	9.3	67
45	Turning concrete waste powder into carbonated artificial aggregates. Construction and Building Materials, 2019, 199, 178-184.	7.2	65
46	Towards carbon-neutral construction materials: Carbonation of cement-based materials and the future perspective. Journal of Building Engineering, 2020, 28, 101062.	3.4	64
47	Production of artificial aggregates from steel-making slag: Influences of accelerated carbonation during granulation and/or post-curing. Journal of CO2 Utilization, 2020, 36, 135-144.	6.8	64
48	Incorporation of expanded vermiculite lightweight aggregate in cement mortar. Construction and Building Materials, 2018, 179, 302-306.	7.2	63
49	Recent advances in artificial aggregate production. Journal of Cleaner Production, 2021, 291, 125215.	9.3	63
50	Instant CO2 curing for dry-mix pressed cement pastes: Consideration of CO2 concentrations coupled with further water curing. Journal of CO2 Utilization, 2020, 38, 348-354.	6.8	56
51	Waste resources recycling in controlled low-strength material (CLSM): A critical review on plastic properties. Journal of Environmental Management, 2019, 241, 383-396.	7.8	55
52	CO2 sequestration of fresh concrete slurry waste: Optimization of CO2 uptake and feasible use as a potential cement binder. Journal of CO2 Utilization, 2020, 42, 101330.	6.8	55
53	Use of wastes derived from earthquakes for the production of concrete masonry partition wall blocks. Waste Management, 2011, 31, 1859-1866.	7.4	54
54	Effect of particle size and CO₂ treatment of waste cement powder on properties of cement paste. Canadian Journal of Civil Engineering, 2021, 48, 522-531.	1.3	54

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55	An Overview: Reaction Mechanisms and Modelling of CO2 Utilization via Mineralization. Aerosol and Air Quality Research, 2018, 18, 829-848.	2.1	54
56	Strength enhancement of artificial aggregate prepared with waste concrete powder and its impact on concrete properties. Journal of Cleaner Production, 2020, 257, 120515.	9.3	52
57	Properties of mortar prepared with recycled cathode ray tube funnel glass sand at different mineral admixture. Construction and Building Materials, 2013, 40, 951-960.	7.2	51
58	Feasible use of large volumes of GGBS in 100% recycled glass architectural mortar. Cement and Concrete Composites, 2014, 53, 350-356.	10.7	50
59	Effect of water-to-cement ratio induced hydration on the accelerated carbonation of cement pastes. Environmental Pollution, 2021, 280, 116914.	7.5	50
60	Strength and toughness of lightweight foamed concrete with different sand grading. KSCE Journal of Civil Engineering, 2015, 19, 2191-2197.	1.9	47
61	CO2 Treatment of Hydrated Cement Powder: Characterization and Application Consideration. Journal of Materials in Civil Engineering, 2021, 33, .	2.9	46
62	Enhancement of high temperature performance of cement blocks via CO2 curing. Science of the Total Environment, 2019, 671, 827-837.	8.0	45
63	Investigation on electrically conductive aggregates produced by incorporating carbon fiber and carbon black. Construction and Building Materials, 2017, 144, 106-114.	7.2	44
64	Laboratory performance of crumb rubber concrete block pavement. International Journal of Pavement Engineering, 2009, 10, 361-374.	4.4	43
65	CO2 pretreatment of municipal solid waste incineration fly ash and its feasible use as supplementary cementitious material. Journal of Hazardous Materials, 2022, 424, 127457.	12.4	43
66	Properties of Crumb Rubber Concrete Paving Blocks with SBR Latex. Road Materials and Pavement Design, 2009, 10, 213-222.	4.0	42
67	Properties of Foamed Mortar Prepared with Granulated Blast-Furnace Slag. Materials, 2015, 8, 462-473.	2.9	42
68	Influence of particle size of glass aggregates on the high temperature properties of dry-mix concrete blocks. Construction and Building Materials, 2019, 209, 522-531.	7.2	40
69	Effect of direct carbonation routes of basic oxygen furnace slag (BOFS) on strength and hydration of blended cement paste. Construction and Building Materials, 2021, 304, 124628.	7.2	40
70	Environmental benefit assessment of steel slag utilization and carbonation: A systematic review. Science of the Total Environment, 2022, 806, 150280.	8.0	40
71	Sound absorption performance of modified concrete: A review. Journal of Building Engineering, 2020, 30, 101219.	3.4	39
72	Development of a method for recycling of CRT funnel glass. Environmental Technology (United) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62	2.2	38

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73	X-ray radiation shielding properties of cement mortars prepared with different types of aggregates. Materials and Structures/Materiaux Et Constructions, 2013, 46, 1133-1141.	3.1	38
74	Properties of partition wall blocks prepared with high percentages of recycled clay brick after exposure to elevated temperatures. Construction and Building Materials, 2013, 49, 56-61.	7.2	38
75	Spent fluorescent lamp glass as a substitute for fine aggregate in cement mortar. Journal of Cleaner Production, 2017, 161, 646-654.	9.3	36
76	Elucidating the dominant and interaction effects of temperature, CO2 pressure and carbonation time in carbonating steel slag blocks. Construction and Building Materials, 2021, 302, 124158.	7.2	36
77	Roles of chlorine and sulphate in MSWIFA in GGBFS binder: Hydration, mechanical properties and stabilization considerations. Environmental Pollution, 2021, 284, 117175.	7.5	35
78	Comparative life cycle assessment to maximize CO2 sequestration of steel slag products. Construction and Building Materials, 2021, 298, 123876.	7.2	34
79	Using recycled waste tyres in concrete paving blocks. Proceedings of Institution of Civil Engineers: Waste and Resource Management, 2010, 163, 37-45.	0.8	31
80	Thermal performance of a solar energy storage concrete panel incorporating phase change material aggregates developed for thermal regulation in buildings. Renewable Energy, 2020, 160, 817-829.	8.9	31
81	Long-term strength of rubberised concrete paving blocks. Proceedings of Institution of Civil Engineers: Construction Materials, 2010, 163, 19-26.	1.1	29
82	A review of elevated-temperature properties of alternative binders: Supplementary cementitious materials and alkali-activated materials. Construction and Building Materials, 2022, 341, 127894.	7.2	29
83	High temperatures properties of barite concrete with cathode ray tube funnel glass. Fire and Materials, 2014, 38, 279-289.	2.0	27
84	Use of CRT funnel glass in concrete blocks prepared with different aggregate-to-cement ratios. Green Materials, 2014, 2, 43-51.	2.1	26
85	Combining hydration and carbonation of cement using super-saturated aqueous CO2 solution. Construction and Building Materials, 2019, 229, 116825.	7.2	26
86	Impact of CO2 curing on the microhardness and strength of 0.35â€¯w/c cement paste: Comparative study of internal/surface layers. Journal of Materials Research and Technology, 2020, 9, 11849-11860.	5.8	26
87	Raman spectroscopy as a tool to understand the mechanism of concrete durabilityâ€”A review. Construction and Building Materials, 2021, 268, 121079.	7.2	25
88	Effects of a two-step heating process on the properties of lightweight aggregate prepared with sewage sludge and saline clay. Construction and Building Materials, 2016, 114, 119-126.	7.2	24
89	Cement pastes modified with recycled glass and supplementary cementitious materials: Properties at the ambient and high temperatures. Journal of Cleaner Production, 2019, 241, 118155.	9.3	24
90	Offsetting strength loss in concrete via ITZ enhancement: From the perspective of utilizing new alternative aggregate. Cement and Concrete Composites, 2022, 127, 104385.	10.7	23

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91	Development of leak-free phase change material aggregates. Construction and Building Materials, 2020, 230, 117029.	7.2	22
92	Mechanical strength and durability performance of autoclaved lime-saline soil brick. Construction and Building Materials, 2017, 146, 403-409.	7.2	21
93	Synthesis of porous geopolymer sphere for Ni(II) removal. Ceramics International, 2021, 47, 29055-29063.	4.8	21
94	Understanding the compressive strength degradation mechanism of cement-paste incorporating phase change material. Cement and Concrete Composites, 2021, 124, 104249.	10.7	20
95	Use of CO2-active BOFS binder in the production of artificial aggregates with waste concrete powder. Resources, Conservation and Recycling, 2022, 182, 106332.	10.8	20
96	Mechanical strength, water resistance and drying shrinkage of lightweight hemihydrate phosphogypsum-cement composite with ground granulated blast furnace slag and recycled waste glass. Construction and Building Materials, 2022, 345, 128232.	7.2	20
97	Stressâ€“strain behaviour of fire exposed selfâ€compacting glass concrete. Fire and Materials, 2013, 37, 297-310.	2.0	19
98	Synergic performance of low-kaolinite calcined coal gangue blended with limestone in cement mortars. Construction and Building Materials, 2021, 300, 124012.	7.2	19
99	Mechanism of carbonating recycled concrete fines in aqueous environment: The particle size effect. Cement and Concrete Composites, 2022, 133, 104655.	10.7	19
100	Response surface methodology for the optimization of CO2 uptake using waste concrete powder. Construction and Building Materials, 2022, 340, 127758.	7.2	18
101	Roles of CO2 curing induced calcium carbonates on high temperature properties of dry-mixed cement paste. Construction and Building Materials, 2021, 289, 123193.	7.2	17
102	Stress-strain behaviour of cement mortars containing recycled glass during and after exposure to elevated temperatures. Cement and Concrete Composites, 2021, 118, 103970.	10.7	16
103	Distribution of ASR gel in conventional wet-mix glass mortars and mechanically produced dry-mix glass blocks. Construction and Building Materials, 2019, 229, 116916.	7.2	15
104	Examining the Influence of Recycled Concrete Aggregate on the Hardened Properties of Self-compacting Concrete. Waste and Biomass Valorization, 2021, 12, 1133-1141.	3.4	15
105	Valorization of Wastes from Power Plant, Steel-Making and Palm Oil Industries as Partial Sand Substitute in Concrete. Waste and Biomass Valorization, 2018, 9, 1645-1654.	3.4	14
106	GGBFS as potential filler in polyester grout: Flexural strength and toughness. Construction and Building Materials, 2009, 23, 2007-2015.	7.2	13
107	Strength properties of self-compacting mortar mixed with GGBFS. Proceedings of Institution of Civil Engineers: Construction Materials, 2012, 165, 87-98.	1.1	13
108	Alkali-silica reactivity of lightweight aggregate: A brief overview. Construction and Building Materials, 2021, 270, 121444.	7.2	13

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109	Carbon dioxide sequestration on recycled aggregates. , 2018, , 247-277.		12
110	Highly-efficient green photocatalytic cementitious materials with robust weathering resistance: From laboratory to application. Environmental Pollution, 2021, 273, 116510.	7.5	12
111	Upcycling of wastes for sustainable controlled low-strength material: A review on strength and excavatability. Environmental Science and Pollution Research, 2022, 29, 16799-16816.	5.3	12
112	Synthesis of high belite sulfoaluminate cement with high volume of mixed solid wastes. Cement and Concrete Research, 2022, 158, 106845.	11.0	12
113	Chemical evolution of alkaliâ€“silicate reaction (ASR) products: a Raman spectroscopic investigation. Materials and Structures/Materiaux Et Constructions, 2018, 51, 1.	3.1	11
114	Development of lightweight aggregate mortar skin layer for an innovative sandwich concrete composite. Journal of Building Engineering, 2020, 27, 100941.	3.4	11
115	Report of RILEM TC 281-CCC: outcomes of a round robin on the resistance to accelerated carbonation of Portland, Portland-fly ash and blast-furnace blended cements. Materials and Structures/Materiaux Et Constructions, 2022, 55, 99.	3.1	10
116	Study on the use of lightweight expanded perlite and vermiculite aggregates in blended cement mortars. European Journal of Environmental and Civil Engineering, 2020, , 1-20.	2.1	9
117	Synergistic Effect of Pre-carbonated Slurry and Mixing Sequence on the Performance of Self-compacting Recycled Aggregate Modified Mortar. Waste and Biomass Valorization, 2021, 12, 5201-5210.	3.4	9
118	Effects of accelerated carbonation and high temperatures exposure on the properties of EAFS and BOFS pressed blocks. Journal of Building Engineering, 2022, 45, 103504.	3.4	9
119	High-temperature CO2 for accelerating the carbonation of recycled concrete fines. Journal of Building Engineering, 2022, 52, 104526.	3.4	9
120	Effects of CO2 curing treatment on alkali-silica reaction of mortars containing glass aggregate. Construction and Building Materials, 2022, 323, 126637.	7.2	8
121	Investigation on the copper ion removal potential of a facile-fabricated foamed geopolymer sphere for wastewater remediation. Cleaner Materials, 2022, 4, 100088.	5.1	8
122	High temperature performance of wet-mix and dry-mix mortars prepared with different contents and size gradings of glass aggregates: Hot test and cold test. Cement and Concrete Composites, 2020, 108, 103548.	10.7	7
123	Rapid hydration mechanism of carbonic acid and cement. Journal of Building Engineering, 2020, 31, 101357.	3.4	7
124	Progress in developing self-consolidating concrete (SCC) constituting recycled concrete aggregates: A review. International Journal of Minerals, Metallurgy and Materials, 2021, 28, 522-537.	4.9	7
125	Ultra-fine sediment of Changjiang estuary as binder replacement in self-compacting mortar: Rheological, hydration and hardened properties. Journal of Building Engineering, 2021, 44, 103251.	3.4	7
126	Waste press mud in enhancing the performance of glass powder blended cement. Construction and Building Materials, 2021, 313, 125469.	7.2	7

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127	Upcycling coal- and soft-series metakaolin in blended cement with limestone. Construction and Building Materials, 2022, 327, 126965.	7.2	7
128	Interdependent factors contributing towards carbonation of steel slag compact: consideration of casting pressure, water dosage and carbonation duration. Materials and Structures/Materiaux Et Constructions, 2021, 54, 1.	3.1	6
129	Effects of moulding pressure and w/c induced pore water saturation on the CO2 curing efficiency of dry-mix cement blocks. Construction and Building Materials, 2022, 335, 127509.	7.2	6
130	Comparative study on the properties and high temperature resistance of self-compacting concrete with various types of recycled aggregates. Case Studies in Construction Materials, 2021, 15, e00678.	1.7	5
131	Upcycling of waste hydrated cement paste containing high-volume supplementary cementitious materials via CO2 pre-treatment. Journal of Building Engineering, 2022, 52, 104396.	3.4	5
132	Recycling Bayer and sintering red muds in brick production: a review. Journal of Zhejiang University: Science A, 2022, 23, 335-357.	2.4	5
133	Precast architectural tiles produced by double-layer casting method. Cement and Concrete Composites, 2016, 66, 73-81.	10.7	4
134	Carbon footprint of block prepared with recycled aggregate: a case study in China. IOP Conference Series: Materials Science and Engineering, 0, 431, 032009.	0.6	4
135	Thermal and durability performances of mortar and concrete containing phase change materials. IOP Conference Series: Materials Science and Engineering, 2018, 431, 062001.	0.6	4
136	Potential Use of Calcined Kaolinite-Based Wastes as Cement Replacements in Concrete â€“ An Overview. IOP Conference Series: Materials Science and Engineering, 2018, 431, 032006.	0.6	3
137	Properties of Crumb Rubber Concrete Paving Blocks with SBR Latex. Road Materials and Pavement Design, 2009, 10, 213-222.	4.0	3
138	Ground-Granulated Blast-Furnace Slag as Potential Filler in Polyester Grout: Compressive Strength Development. ACI Materials Journal, 2011, 108, .	0.2	2
139	Utilization of coal fly ash and bottom ash in brick and block products. , 2022, , 355-371.		2
140	Use of luminescent-glass aggregates for the production of decorative architectural mortar. Journal of Building Engineering, 2022, 50, 104233.	3.4	2
141	Influence of kaolinite content in coal-series metakaolin and soft metakaolin on the performance of cement blends with and without limestone. Materials and Structures/Materiaux Et Constructions, 2022, 55, 1.	3.1	2
142	Alternative Cementitious Materials and Their Composites. Advances in Materials Science and Engineering, 2018, 2018, 1-2.	1.8	1
143	Experimental Study on Clay Brick Masonry Assemblies Strengthened with Basalt Textile Reinforced Mortar. Journal of Testing and Evaluation, 2020, 48, 3312-3323.	0.7	1
144	Addendum: Zhao, X.; et al. Properties of Foamed Mortar Prepared with Granulated Blast-furnace Slag. Materials 2015, 8(2), 462-473. Materials, 2015, 8, 3958-3959.	2.9	0

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145	Autoclaved Lime-Saline Soil Products: Reactivity Assessments and Effects of Quartz Sand. Journal of Materials in Civil Engineering, 2018, 30, 04018055.	2.9	0