

# Keun-Hyeok Yang

## List of Publications by Year in descending order

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139  
papers

4,454  
citations

159585

30  
h-index

114465

63  
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140  
all docs

140  
docs citations

140  
times ranked

3433  
citing authors

#	ARTICLE	IF	CITATIONS
1	Flexural Behavior of Lightweight Aggregate Concrete Shear Walls with Boundary Element. Journal of Structural Engineering, 2022, 148, .	3.4	1
2	In-plane lateral load transfer capacity of unreinforced masonry walls considering presence of openings. Journal of Building Engineering, 2022, 47, 103868.	3.4	4
3	Service life of sewage culvert with bacteria coating from waste sludge and negative pressure method. Journal of Material Cycles and Waste Management, 2022, 24, 582-594.	3.0	2
4	Flexural behaviour of lightweight aggregate concrete columns. Magazine of Concrete Research, 2022, 74, 905-918.	2.0	2
5	Seismic behaviour of RC jacketed columns under different axial loads. Magazine of Concrete Research, 2021, 73, 879-889.	2.0	1
6	Evaluation of sulfate resistance of protective biological coating mortars. Construction and Building Materials, 2021, 270, 121381.	7.2	8
7	Total Repair Cost Simulation Considering Multiple Probabilistic Measures and Service Life. Sustainability, 2021, 13, 2350.	3.2	1
8	Effect of Cement Types and Superabsorbent Polymers on the Properties of Sustainable Ultra-High-Performance Paste. Materials, 2021, 14, 1497.	2.9	10
9	Study on Influence of Range of Data in Concrete Compressive Strength with Respect to the Accuracy of Machine Learning with Linear Regression. Applied Sciences (Switzerland), 2021, 11, 3866.	2.5	1
10	Compressive Stress-Strain Model for Confined Lightweight Concrete Based on Brittleness Number. KSCE Journal of Civil Engineering, 2021, 25, 3041-3053.	1.9	4
11	CO2 uptake model of limestone-powder-blended concrete due to carbonation. Journal of Building Engineering, 2021, 38, 102176.	3.4	10
12	Service Life Evaluation for RC Sewer Structure Repaired with Bacteria Mixed Coating: Through Probabilistic and Deterministic Method. Materials, 2021, 14, 5424.	2.9	6
13	Enhancement of Strength and Resistance to Sulfate Attack in Bio-Coating Material through Negative Pressure Method for Bacteria Immobilization. Applied Sciences (Switzerland), 2021, 11, 9113.	2.5	5
14	Axial and flexural performances of columns restored after severe damage. Journal of Building Engineering, 2021, 44, 102686.	3.4	1
15	Mathematical Models for Tensile Resistance Capacities of Concrete. Journal of Materials in Civil Engineering, 2021, 33, .	2.9	1
16	Dipping-Press Coating Method for Retaining Transparency and Imparting Hydrophobicity Regardless of Plastic Substrate Type. Polymers, 2021, 13, 403.	4.5	3
17	Shear friction response of lightweight concrete using bottom ash aggregates and air foams. Journal of Structural Integrity and Maintenance, 2021, 6, 37-46.	1.5	1
18	Hydrophobic halochromic aerogel capable of reversibly measuring acidic and basic vapors. AIP Advances, 2021, 11, 115115.	1.3	2

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19	Efficient adsorption of sulfide gas using porous zeolite powder. <i>Journal of the Korean Physical Society</i> , 2021, 79, 1157-1162.	0.7	0
20	Axial test of full-scale columns strengthened with jacket section. <i>Magazine of Concrete Research</i> , 2020, 72, 973-983.	2.0	0
21	Shear behavior of reinforced concrete basement walls with consecutive convexo-concave-shaped bars as shear reinforcement. <i>Mechanics of Advanced Materials and Structures</i> , 2020, 27, 505-514.	2.6	0
22	Thermal transfer and moisture resistances of nano-aerogel-embedded foam concrete. <i>Construction and Building Materials</i> , 2020, 236, 117575.	7.2	49
23	Flexural capacity and ductility of lightweight concrete T-beams. <i>Structural Concrete</i> , 2020, 21, 2708-2721.	3.1	6
24	Removal Rates of NO <sub>x</sub> , SO <sub>x</sub> , and Fine Dust Particles in Textile Fabrics Coated with Zeolite and Coconut Shell Activated Carbon. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 8010.	2.5	1
25	Evaluation of Workability and Mechanical Properties of Bottom Ash Aggregate Concrete. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 8016.	2.5	3
26	Metamaterial's Acceptable Level of Wrecked Meta-pattern. <i>Journal of the Korean Physical Society</i> , 2020, 77, 1016-1020.	0.7	1
27	Effect of Zeolite on Shrinkage and Crack Resistance of High-Performance Cement-Based Concrete. <i>Materials</i> , 2020, 13, 3773.	2.9	15
28	A-site Doping Effect of Multiferroic BiFeO <sub>3</sub> Ceramics. <i>Journal of the Korean Physical Society</i> , 2020, 77, 1021-1025.	0.7	2
29	Compressive Strength Development of High-Volume Fly Ash Ultra-High-Performance Concrete under Heat Curing Condition with Time. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 7107.	2.5	18
30	Enhancing Functionality of Epoxy-TiO <sub>2</sub> -Embedded High-Strength Lightweight Aggregates. <i>Polymers</i> , 2020, 12, 2384.	4.5	5
31	Axial performance of RC columns with glass-fiber grids as peripheral hoops. <i>Journal of Structural Integrity and Maintenance</i> , 2020, 5, 31-39.	1.5	0
32	Evaluation of Strength Development in Concrete with Ground Granulated Blast Furnace Slag Using Apparent Activation Energy. <i>Materials</i> , 2020, 13, 442.	2.9	20
33	Axial performance of RC columns strengthened with different jacketing methods. <i>Engineering Structures</i> , 2020, 206, 110179.	5.3	7
34	Effective Bio-Slime Coating Technique for Concrete Surfaces under Sulfate Attack. <i>Materials</i> , 2020, 13, 1512.	2.9	9
35	<i>Algoriphagus aquimaris</i> sp. nov., isolated from seashore sand. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2020, 70, 721-731.	1.7	4
36	Pore Structure Analysis to Adsorb NO <sub>x</sub> Gas based on Porous Materials. <i>Journal of the Korean Physical Society</i> , 2020, 77, 790-796.	0.7	4

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37	Service life of GGBFS concrete under carbonation through probabilistic method considering cold joint and tensile stress. Journal of Building Engineering, 2020, 32, 101826.	3.4	6
38	Optimization of the Mixture Design of Low-CO <sub>2</sub> High-Strength Concrete Containing Silica Fume. Advances in Civil Engineering, 2019, 2019, 1-9.	0.7	8
39	Feasibility test and evaluation models to develop sustainable insulation concrete using foam and bottom ash aggregates. Construction and Building Materials, 2019, 225, 620-632.	7.2	18
40	Sodium Phosphate Post-treatment on Al Coating: Morphological and Corrosion Study. Journal of Thermal Spray Technology, 2019, 28, 1511-1531.	3.1	9
41	Service life evaluation of RC T-girder under carbonation considering cold joint and loading effects. Construction and Building Materials, 2019, 226, 106-116.	7.2	20
42	A Stress-Strain Model for Unconfined Concrete in Compression considering the Size Effect. Advances in Materials Science and Engineering, 2019, 2019, 1-13.	1.8	1
43	A Stress-Strain Model for Brick Prism under Uniaxial Compression. Advances in Civil Engineering, 2019, 2019, 1-10.	0.7	8
44	Effect of Sand Content on the Workability and Mechanical Properties of Concrete Using Bottom Ash and Dredged Soil-based Artificial Lightweight Aggregates. International Journal of Concrete Structures and Materials, 2019, 13, .	3.2	10
45	Distance Effect of Heat Flux Based on Thermal Metamaterials. Journal of the Korean Physical Society, 2019, 75, 1028-1032.	0.7	0
46	Durability and purification performance of concrete impregnated with silicate and sprayed with photocatalytic TiO <sub>2</sub> . Construction and Building Materials, 2019, 199, 106-114.	7.2	15
47	Engineering performance evaluation of mortar with EOS (electric arc furnace oxidizing slag) as fine aggregate. Journal of Material Cycles and Waste Management, 2019, 21, 547-555.	3.0	1
48	Flexural behaviour of externally post-tensioned two-span lightweight concrete beams. Magazine of Concrete Research, 2019, 71, 1193-1203.	2.0	2
49	Shear Friction Characteristics and Modification Factor of Concrete Prepared Using Expanded Bottom Ash and Dredged Soil Granules. International Journal of Concrete Structures and Materials, 2019, 13, .	3.2	3
50	Mechanical Properties of Concrete Made from Different Expanded Lightweight Aggregates. ACI Materials Journal, 2019, 116, .	0.2	9
51	Time and cold joint effect on chloride diffusion in concrete containing GGBFS under various loading conditions. Construction and Building Materials, 2018, 167, 739-748.	7.2	15
52	Influence of Zn and Mg Alloying on the Corrosion Resistance Properties of Al Coating Applied by Arc Thermal Spray Process in Simulated Weather Solution. Acta Metallurgica Sinica (English Letters), 2018, 31, 591-603.	2.9	22
53	Flexural tests on externally post-tensioned lightweight concrete beams. Engineering Structures, 2018, 164, 128-140.	5.3	17
54	Time and Crack Effect on Chloride Diffusion for Concrete with Fly Ash. International Journal of Concrete Structures and Materials, 2018, 12, .	3.2	17

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55	Cyclic Flexural and Shear Performances of Beam Elements with Longitudinal Glass Fiber Reinforced Polymer (GFRP) Bars in Exterior Beam-Column Connections. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 2353.	2.5	4
56	Mechanical Model for Shear Friction Capacity of Concrete at Construction Joints. <i>Advances in Materials Science and Engineering</i> , 2018, 2018, 1-12.	1.8	2
57	Shrinkage strains of lightweight aggregate concrete using expanded bottom ash and dredged soil granules. <i>Construction and Building Materials</i> , 2018, 188, 934-945.	7.2	20
58	Stress Corrosion Behavior of UngROUTED Pretensioned Concrete Beams. <i>Advances in Materials Science and Engineering</i> , 2018, 2018, 1-11.	1.8	5
59	Feasibility tests toward the development of protective biological coating mortars. <i>Construction and Building Materials</i> , 2018, 181, 1-11.	7.2	11
60	Quality control for coal combustion products in South Korea through assessed pozzolanic-activity index with long-term property tests. <i>Journal of Material Cycles and Waste Management</i> , 2017, 19, 694-711.	3.0	2
61	Tests on magnesium potassium phosphate composite mortars with different water-to-binder ratios and molar ratios of magnesium-to-phosphate. <i>Construction and Building Materials</i> , 2017, 146, 303-311.	7.2	38
62	Fabrication and evaluation of a highly durable and reliable chloride monitoring sensor for civil infrastructure. <i>RSC Advances</i> , 2017, 7, 31252-31263.	3.6	15
63	Simple Technique for Tracking Chloride Penetration in Concrete Based on the Crack Shape and Width under Steady-State Conditions. <i>Sustainability</i> , 2017, 9, 282.	3.2	8
64	Current Trends of Durability Design and Government Support in South Korea: Chloride Attack. <i>Sustainability</i> , 2017, 9, 417.	3.2	9
65	Comparative Study of Strength and Corrosion Resistant Properties of Plain and Blended Cement Concrete Types. <i>Advances in Materials Science and Engineering</i> , 2017, 2017, 1-14.	1.8	14
66	Tensile Behavior and Cracking Pattern of an Ultra-High Performance Mortar Reinforced by Polyethylene Fiber. <i>Advances in Materials Science and Engineering</i> , 2017, 2017, 1-10.	1.8	14
67	Flexural Behavior of Reinforced Concrete Columns with Supplementary V-Shaped Ties. <i>ACI Structural Journal</i> , 2017, 114, .	0.2	9
68	Shear Stress-Relative Slip Relationship at Concrete Interfaces. <i>Advances in Materials Science and Engineering</i> , 2016, 2016, 1-9.	1.8	2
69	Effects of Magnetite Aggregate and Steel Powder on Thermal Conductivity and Porosity in Concrete for Nuclear Power Plant. <i>Advances in Materials Science and Engineering</i> , 2016, 2016, 1-8.	1.8	12
70	Standardization, Calibration, and Evaluation of Tantalum-Nano rGO-SnO <sub>2</sub> Composite as a Possible Candidate Material in Humidity Sensors. <i>Sensors</i> , 2016, 16, 2079.	3.8	37
71	Effect of mineral admixture on CO <sub>2</sub> emissions and absorption in relation to service life and varying CO <sub>2</sub> concentrations. <i>International Journal of Sustainable Building Technology and Urban Development</i> , 2016, 7, 165-173.	1.0	7
72	Low CO <sub>2</sub> design approach of reinforced concrete structures for the targeted CO <sub>2</sub> reduction. <i>Journal of Structural Integrity and Maintenance</i> , 2016, 1, 81-87.	1.5	3

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73	Cyclic flexural tests of hybrid steel-precast concrete beams with simple connection elements. <i>Engineering Structures</i> , 2016, 118, 344-356.	5.3	29
74	Tests on the Compressive Fatigue Performance of Various Concretes. <i>Journal of Materials in Civil Engineering</i> , 2016, 28, .	2.9	16
75	Substantial global carbon uptake by cement carbonation. <i>Nature Geoscience</i> , 2016, 9, 880-883.	12.9	355
76	Service life variation in RC columns exposed to chloride attack: a time-dependent deterministic and probabilistic examination. <i>International Journal of Sustainable Building Technology and Urban Development</i> , 2016, 7, 184-197.	1.0	2
77	Effects of cold joint and loading conditions on chloride diffusion in concrete containing GGBFS. <i>Construction and Building Materials</i> , 2016, 115, 247-255.	7.2	30
78	Development and application of microcapsule for cement hydration control. <i>KSCE Journal of Civil Engineering</i> , 2016, 20, 282-292.	1.9	11
79	Implementing ternary supplementary cementing binder for reduction of the heat of hydration of concrete. <i>Journal of Cleaner Production</i> , 2016, 112, 845-852.	9.3	38
80	Mixture Proportioning Approach for Low-CO <sub>2</sub> Concrete Using Supplementary Cementitious Materials. <i>ACI Materials Journal</i> , 2016, 113, .	0.2	3
81	Axial Compression Performance of Reinforced Concrete Short Columns with Supplementary V-Shaped Ties. <i>ACI Structural Journal</i> , 2016, 113, .	0.2	17
82	Mixture Proportioning Approach for Low-CO <sub>2</sub> Lightweight Aggregate Concrete based on the Replacement Level of Natural Sand. <i>Journal of the Korea Concrete Institute</i> , 2016, 28, 427-434.	0.2	1
83	Analysis of lifecycle CO <sub>2</sub> reduction performance for long-life apartment house. <i>Environmental Progress and Sustainable Energy</i> , 2015, 34, 555-566.	2.3	20
84	Hydration Characteristics of Low-Heat Cement Substituted by Fly Ash and Limestone Powder. <i>Materials</i> , 2015, 8, 5847-5861.	2.9	28
85	Effect of supplementary cementitious materials on reduction of CO <sub>2</sub> emissions from concrete. <i>Journal of Cleaner Production</i> , 2015, 103, 774-783.	9.3	383
86	Tests on high-performance aerated concrete with a lower density. <i>Construction and Building Materials</i> , 2015, 74, 109-117.	7.2	54
87	Mixture-Proportioning Model for Low-CO <sub>2</sub> Concrete Considering the Type and Addition Level of Supplementary Cementitious Materials. <i>Journal of the Korea Concrete Institute</i> , 2015, 27, 427-434.	0.2	8
88	Effect of Fiber Addition for Improving the Properties of Lightweight Foamed Concrete. <i>Journal of the Korea Institute of Building Construction</i> , 2015, 15, 383-389.	0.1	3
89	Foamed Concrete with a New Mixture Proportioning Method Comparable to the Quality of Conventional ALC Block. <i>Journal of the Korea Institute of Building Construction</i> , 2015, 15, 1-7.	0.1	0
90	Design Approach of Concrete Structures Considering the Targeted CO <sub>2</sub> Reduction. <i>Journal of the Korean Recycled Construction Resources Institute</i> , 2015, 3, 115-121.	0.1	1

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91	Feasibility Tests on Concrete with Very-High-Volume Supplementary Cementitious Materials. Scientific World Journal, The, 2014, 2014, 1-11.	2.1	1
92	Strength and Durability Performance of Alkali-Activated Rice Husk Ash Geopolymer Mortar. Scientific World Journal, The, 2014, 2014, 1-10.	2.1	64
93	Stress-Strain Relationship of Ca<sup>2</sup>OH<sup>-</sup> Activated Hwangtoh Concrete. Scientific World Journal, The, 2014, 2014, 1-9.	2.1	2
94	Concrete Mix Design for Service Life of RC Structures under Carbonation Using Genetic Algorithm. Advances in Materials Science and Engineering, 2014, 2014, 1-13.	1.8	4
95	Carbonation Characteristics of Alkali-Activated Blast-Furnace Slag Mortar. Advances in Materials Science and Engineering, 2014, 2014, 1-11.	1.8	64
96	Effect of W/C Ratio on Durability and Porosity in Cement Mortar with Constant Cement Amount. Advances in Materials Science and Engineering, 2014, 2014, 1-11.	1.8	99
97	Direct tensile strength of lightweight concrete with different specimen depths and aggregate sizes. Construction and Building Materials, 2014, 63, 132-141.	7.2	39
98	Properties and sustainability of alkali-activated slag foamed concrete. Journal of Cleaner Production, 2014, 68, 226-233.	9.3	160
99	An initial trial mixture proportioning procedure for structural lightweight aggregate concrete. Construction and Building Materials, 2014, 55, 431-439.	7.2	32
100	Carbonation and CO <sub>2</sub> uptake of concrete. Environmental Impact Assessment Review, 2014, 46, 43-52.	9.2	90
101	CO <sub>2</sub> Emission and Storage Evaluation of RC Underground Structure under Carbonation Considering Service Life and Mix Conditions with Fly Ash. The Journal of the Korea Contents Association, 2014, 14, 999-1009.	0.1	0
102	Engineering properties of cement mortar with pond ash in South Korea as construction materials: from waste to concrete. Open Engineering, 2013, 3, .	1.6	17
103	Shrinkage of heavyweight magnetite concrete with and without fly ash. Construction and Building Materials, 2013, 47, 56-65.	7.2	18
104	Flexural behavior of post-tensioned normal-strength lightweight concrete one-way slabs. Engineering Structures, 2013, 56, 1295-1307.	5.3	18
105	Influence of aggregate size on the compressive size effect according to different concrete types. Construction and Building Materials, 2013, 44, 716-725.	7.2	58
106	Size and shape effects on compressive strength of lightweight concrete. Construction and Building Materials, 2013, 38, 854-864.	7.2	90
107	Assessment of CO <sub>2</sub> reduction of alkali-activated concrete. Journal of Cleaner Production, 2013, 39, 265-272.	9.3	495
108	Flexural behaviour of RC columns using wire ropes as lateral reinforcement. Magazine of Concrete Research, 2012, 64, 269-281.	2.0	10

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109	Shear capacity of reinforced concrete corbels using mechanism analysis. Proceedings of the Institution of Civil Engineers: Structures and Buildings, 2012, 165, 111-125.	0.8	8
110	Shear capacity of monolithic concrete joints without transverse reinforcement. Magazine of Concrete Research, 2012, 64, 767-779.	2.0	25
111	Analysis technique for chloride penetration in cracked concrete using equivalent diffusion and permeation. Construction and Building Materials, 2012, 29, 183-192.	7.2	110
112	Stochastic model for service life prediction of RC structures exposed to carbonation using random field simulation. KSCE Journal of Civil Engineering, 2012, 16, 133-143.	1.9	20
113	Influence of Specimen Geometries on the Compressive Strength of Lightweight Aggregate Concrete. Journal of the Korea Concrete Institute, 2012, 24, 333-340.	0.2	3
114	Strut-and-Tie Model Based on Crack Band Theory for Deep Beams. Journal of Structural Engineering, 2011, 137, 1030-1038.	3.4	29
115	Shear behavior of continuous reinforced concrete T-beams using wire rope as internal shear reinforcement. Construction and Building Materials, 2011, 25, 911-918.	7.2	33
116	Aggregate interlock in lightweight concrete continuous deep beams. Engineering Structures, 2011, 33, 136-145.	5.3	39
117	Prediction of Durability for RC Columns with Crack and Joint under Carbonation Based on Probabilistic Approach. International Journal of Concrete Structures and Materials, 2011, 5, 11-18.	3.2	37
118	Evaluation for Properties of Domestic Pond Ash Aggregate and Durability Performance in Pond Ash Concrete. Journal of the Korea Concrete Institute, 2011, 23, 311-320.	0.2	4
119	A Stress-Strain Relationship of Alkali-Activated Slag Concrete. Journal of the Korea Concrete Institute, 2011, 23, 765-772.	0.2	8
120	Properties of alkali-activated mortar and concrete using lightweight aggregates. Materials and Structures/Materiaux Et Constructions, 2010, 43, 403-416.	3.1	56
121	Flexural behavior of hybrid precast concrete beams with H-steel beams at both ends. Engineering Structures, 2010, 32, 2940-2949.	5.3	30
122	Analysis of carbonation behavior in concrete using neural network algorithm and carbonation modeling. Cement and Concrete Research, 2010, 40, 119-127.	11.0	99
123	Enhancement of reactivity of calcium hydroxide-activated slag mortars by the addition of barium hydroxide. Construction and Building Materials, 2010, 24, 241-251.	7.2	53
124	Effects of Water-Binder Ratio and Fine Aggregateâ€™Total Aggregate Ratio on the Properties of Hwangtoh-Based Alkali-Activated Concrete. Journal of Materials in Civil Engineering, 2010, 22, 887-896.	2.9	22
125	Air Content, Workability and Bleeding Characteristics of Fresh Lightweight Aggregate Concrete. Journal of the Korea Concrete Institute, 2010, 22, 559-566.	0.2	6
126	Slump and Mechanical Properties of Hybrid Steel-PVA Fiber Reinforced Concrete. Journal of the Korea Concrete Institute, 2010, 22, 651-658.	0.2	18



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127	Workability Loss and Compressive Strength Development of Cementless Mortars Activated by Combination of Sodium Silicate and Sodium Hydroxide. Journal of Materials in Civil Engineering, 2009, 21, 119-127.	2.9	108
128	Shear strengthening of continuous reinforced concrete T-beams using wire rope units. Engineering Structures, 2009, 31, 1154-1165.	5.3	28
129	Development of Geopolymer Concrete with Mixing Condition. , 2009, , .		1
130	Properties of cementless mortars activated by sodium silicate. Construction and Building Materials, 2008, 22, 1981-1989.	7.2	241
131	Development of a cementless mortar using hwangtoh binder. Building and Environment, 2007, 42, 3717-3725.	6.9	51
132	Permeability characteristics of carbonated concrete considering capillary pore structure. Cement and Concrete Research, 2007, 37, 909-915.	11.0	212
133	On the shear strength of reinforced concrete deep beam with web opening. Structural Design of Tall and Special Buildings, 2006, 15, 445-466.	1.9	17
134	Predicting carbonation in early-aged cracked concrete. Cement and Concrete Research, 2006, 36, 979-989.	11.0	144
135	Shear characteristics of high-strength concrete deep beams without shear reinforcements. Engineering Structures, 2003, 25, 1343-1352.	5.3	105
136	Strength and ductility of laterally confined concrete columns. Canadian Journal of Civil Engineering, 2002, 29, 820-830.	1.3	31
137	Stress-strain curve of laterally confined concrete. Engineering Structures, 2002, 24, 1153-1163.	5.3	52
138	Out-of-plane behaviour of masonry wall structures strengthened with steel-bar truss system. Proceedings of the Institution of Civil Engineers: Structures and Buildings, 0, , 1-12.	0.8	2
139	Feasibility tests on ground granulated powders compiled from waste concrete for soil solidification. European Journal of Environmental and Civil Engineering, 0, , 1-17.	2.1	2