

Erik Schlangen

List of Publications by Year
in descending order

Source: <https://exaly.com/author-pdf/321441/publications.pdf>

Version: 2024-02-01

258
papers

12,359
citations

20817

60
h-index

32842

100
g-index

271
all docs

271
docs citations

271
times ranked

5423
citing authors

#	ARTICLE	IF	CITATIONS
1	A Review on Non-destructive Evaluation of Civil Structures Using Magnetic Sensors. Lecture Notes in Civil Engineering, 2023, , 647-656.	0.4	2
2	Interpretable Ensemble-Machine-Learning models for predicting creep behavior of concrete. Cement and Concrete Composites, 2022, 125, 104295.	10.7	109
3	A review of printing strategies, sustainable cementitious materials and characterization methods in the context of extrusion-based 3D concrete printing. Journal of Building Engineering, 2022, 45, 103599.	3.4	30
4	Experimental and numerical investigation on the role of interface for crack-width control of hybrid SHCC concrete beams. Engineering Structures, 2022, 251, 113378.	5.3	13
5	Microstructure-informed deep convolutional neural network for predicting short-term creep modulus of cement paste. Cement and Concrete Research, 2022, 152, 106681.	11.0	17
6	Influence of sand drying and mixing sequence on the performance of mortars with fine recycled concrete aggregates. Construction and Building Materials, 2022, 315, 125750.	7.2	10
7	Effect of slags of different origins and the role of sulfur in slag on the hydration characteristics of cement-slag systems. Construction and Building Materials, 2022, 316, 125266.	7.2	17
8	Design and analyses of printable strain hardening cementitious composites with optimized particle size distribution. Construction and Building Materials, 2022, 324, 126411.	7.2	24
9	Stress evolution in restrained GGBFS concrete due to autogenous deformation: bayesian optimization of aging creep. Construction and Building Materials, 2022, 324, 126690.	7.2	8
10	M&S highlight: Schlangen and van Mier (1992), Simple lattice model for numerical simulation of fracture of concrete materials and structures. Materials and Structures/Materiaux Et Constructions, 2022, 55, 1.	3.1	2
11	Surface effects of molten slag spills on calcium aluminate cement paste. Materials and Design, 2022, 217, 110623.	7.0	2
12	Effect of curing methods during a long time gap between two printing sessions on the interlayer bonding of 3D printed cementitious materials. Construction and Building Materials, 2022, 332, 127394.	7.2	14
13	Fatigue life and cracking characterization of engineered cementitious composites (ECC) under flexural cyclic load. Construction and Building Materials, 2022, 335, 127465.	7.2	12
14	Plutonic Rocks as Protection Layers to Concrete Exposed to Ultra-High Temperature. Materials, 2022, 15, 3490.	2.9	0
15	Effects of bacteria-embedded polylactic acid (PLA) capsules on fracture properties of strain hardening cementitious composite (SHCC). Engineering Fracture Mechanics, 2022, 268, 108480.	4.3	9
16	Strengthening of concrete structures with ultra high performance fiber reinforced concrete (UHPFRC): A critical review. Construction and Building Materials, 2022, 336, 127398.	7.2	37
17	The role of porosity on degradation of concrete under severe internal and external brine attack in confined conditions. Construction and Building Materials, 2022, 341, 127721.	7.2	1
18	Convolutional neural network for predicting crack pattern and stress-crack width curve of air-void structure in 3D printed concrete. Engineering Fracture Mechanics, 2022, 271, 108624.	4.3	18

#	ARTICLE	IF	CITATIONS
19	Towards understanding deformation and fracture in cementitious lattice materials: Insights from multiscale experiments and simulations. Construction and Building Materials, 2022, 345, 128409.	7.2	4
20	Tunable mechanical behavior of auxetic cementitious cellular composites (CCCs): Experiments and simulations. Construction and Building Materials, 2021, 266, 121388.	7.2	27
21	Physical, chemical and mineralogical characterization of Dutch fine recycled concrete aggregates: A comparative study. Construction and Building Materials, 2021, 270, 121475.	7.2	19
22	Chloride Ion Penetration into Cracked UHPFRC During Wetting-drying Cycles. RILEM Bookseries, 2021, , 227-238.	0.4	1
23	Determination of Loss of Reinforcement Due to Corrosion through X-ray Computer Micro-Tomography. Materials, 2021, 14, 893.	2.9	2
24	Modeling of microstructural effects on the creep of hardened cement paste using an experimentally informed lattice model. Computer-Aided Civil and Infrastructure Engineering, 2021, 36, 560-576.	9.8	20
25	The Prospect of Microwave Heating: Towards a Faster and Deeper Crack Healing in Asphalt Pavement. Processes, 2021, 9, 507.	2.8	13
26	Characterization of air-void systems in 3D printed cementitious materials using optical image scanning and X-ray computed tomography. Materials Characterization, 2021, 173, 110948.	4.4	47
27	The role of rejuvenators in embedded damage healing for asphalt pavement. Materials and Design, 2021, 202, 109564.	7.0	32
28	A discrete lattice model for assessment of buildability performance of 3D printed concrete. Computer-Aided Civil and Infrastructure Engineering, 2021, 36, 638-655.	9.8	24
29	Experimental Investigation of the Performance of a Hybrid Self-Healing System in Porous Asphalt under Fatigue Loadings. Materials, 2021, 14, 3415.	2.9	17
30	Use of fine recycled concrete aggregates in concrete: A critical review. Journal of Building Engineering, 2021, 38, 102196.	3.4	121
31	Effect of coarse aggregate size on non-uniform stress/strain and drying-induced microcracking in concrete. Composites Part B: Engineering, 2021, 216, 108880.	12.0	18
32	Fresh and hardened properties of self-compacting concrete containing recycled fine clay brick aggregates. Materials and Structures/Materiaux Et Constructions, 2021, 54, 1.	3.1	12
33	Assessing strain rate sensitivity of cement paste at the micro-scale through micro-cantilever testing. Cement and Concrete Composites, 2021, 121, 104084.	10.7	14
34	Sustainable materials for 3D concrete printing. Cement and Concrete Composites, 2021, 122, 104156.	10.7	108
35	A numerical study of fatigue of hardened cement paste at the microscale. International Journal of Fatigue, 2021, 151, 106401.	5.7	2
36	Experimental study of flexural fatigue behaviour of cement paste at the microscale. International Journal of Fatigue, 2021, 151, 106378.	5.7	8

#	ARTICLE	IF	CITATIONS
37	Experimental investigation of the short-term creep recovery of hardened cement paste at micrometre length scale. Cement and Concrete Research, 2021, 149, 106562.	11.0	13
38	3D printing of calcined clay-limestone-based cementitious materials. Cement and Concrete Research, 2021, 149, 106553.	11.0	52
39	Bond of steel-mortar interface interfered by stray current. Cement and Concrete Research, 2021, 150, 106591.	11.0	7
40	Durability of an UHPFRC under mechanical and chloride loads. Construction and Building Materials, 2021, 311, 125223.	7.2	12
41	Micromechanical testing and modelling of blast furnace slag cement pastes. Construction and Building Materials, 2020, 239, 117841.	7.2	19
42	X-Ray Micro Tomography of Water Absorption by Superabsorbent Polymers in Mortar. RILEM Bookseries, 2020, , 29-37.	0.4	7
43	Investigation of drying-induced non-uniform deformation, stress, and micro-crack propagation in concrete. Cement and Concrete Composites, 2020, 114, 103786.	10.7	22
44	Effect of relative humidity on drying-induced damage in concrete: A comparative study of digital image correlation and lattice modelling. Materials and Design, 2020, 196, 109128.	7.0	12
45	Effect of printing parameters on interlayer bond strength of 3D printed limestone-calcined clay-based cementitious materials: An experimental and numerical study. Construction and Building Materials, 2020, 262, 120094.	7.2	85
46	Discrete lattice fracture modelling of hydrated cement paste under uniaxial compression at micro-scale. Construction and Building Materials, 2020, 263, 120153.	7.2	9
47	Effect of different grade levels of calcined clays on fresh and hardened properties of ternary-blended cementitious materials for 3D printing. Cement and Concrete Composites, 2020, 114, 103708.	10.7	81
48	Lattice Fracture Model for Concrete Fracture Revisited: Calibration and Validation. Applied Sciences (Switzerland), 2020, 10, 4822.	2.5	23
49	Chemo-physico-mechanical properties of the interface zone between bacterial PLA self-healing capsules and cement paste. Cement and Concrete Research, 2020, 138, 106228.	11.0	27
50	Mechanical Behavior of Printed Strain Hardening Cementitious Composites. Materials, 2020, 13, 2253.	2.9	33
51	Elucidating the Effect of Accelerated Carbonation on Porosity and Mechanical Properties of Hydrated Portland Cement Paste Using X-Ray Tomography and Advanced Micromechanical Testing. Micromachines, 2020, 11, 471.	2.9	15
52	Micro-cantilever testing on the short-term creep behaviour of cement paste at micro-scale. Cement and Concrete Research, 2020, 134, 106105.	11.0	23
53	Fundamental investigation on the frost resistance of mortar with microencapsulated phase change materials. Cement and Concrete Composites, 2020, 113, 103705.	10.7	18
54	Improving printability of limestone-calcined clay-based cementitious materials by using viscosity-modifying admixture. Cement and Concrete Research, 2020, 132, 106040.	11.0	141

#	ARTICLE	IF	CITATIONS
55	A novel self-healing system: Towards a sustainable porous asphalt. Journal of Cleaner Production, 2020, 259, 120815.	9.3	49
56	Experimentally validated meso-scale fracture modelling of mortar using output from micromechanical models. Cement and Concrete Composites, 2020, 110, 103567.	10.7	28
57	Cementitious cellular composites with auxetic behavior. Cement and Concrete Composites, 2020, 111, 103624.	10.7	35
58	Evaluating compressive mechanical LDPM parameters based on an upscaled multiscale approach. Construction and Building Materials, 2020, 251, 118912.	7.2	6
59	Microstructure informed micromechanical modelling of hydrated cement paste: Techniques and challenges. Construction and Building Materials, 2020, 251, 118983.	7.2	41
60	Quality Assessment of Printable Strain Hardening Cementitious Composites Manufactured in Two Different Printing Facilities. RILEM Bookseries, 2020, , 824-838.	0.4	4
61	Extended Lattice Model to Simulate the Printing Process of 3D Printed Cementitious Materials. RILEM Bookseries, 2020, , 814-823.	0.4	1
62	Auxetic Behavior of Cementitious Cellular Composites Under Uniaxial Compression and Cyclic Loading. RILEM Bookseries, 2020, , 547-556.	0.4	1
63	Assessing Hydrated Cement Paste Properties Using Experimentally Informed Discrete Models. Journal of Materials in Civil Engineering, 2019, 31, .	2.9	9
64	Experimental and numerical study on mechanical properties of cement paste pipes subjected to uniaxial tensile loading. Theoretical and Applied Fracture Mechanics, 2019, 103, 102296.	4.7	1
65	Temperature and moisture effects on electrical resistance and strain sensitivity of smart concrete. Construction and Building Materials, 2019, 224, 420-427.	7.2	78
66	Combined experimental and numerical study of uniaxial compression failure of hardened cement paste at micrometre length scale. Cement and Concrete Research, 2019, 126, 105925.	11.0	55
67	Experimentally informed fracture modelling of interfacial transition zone at micro-scale. Cement and Concrete Composites, 2019, 104, 103383.	10.7	36
68	Numerical investigation of crack self-sealing in cement-based composites with superabsorbent polymers. Cement and Concrete Composites, 2019, 104, 103395.	10.7	26
69	Limestone and Calcined Clay-Based Sustainable Cementitious Materials for 3D Concrete Printing: A Fundamental Study of Extrudability and Early-Age Strength Development. Applied Sciences (Switzerland), 2019, 9, 1809.	2.5	69
70	The Effect of Viscosity-Modifying Admixture on the Extrudability of Limestone and Calcined Clay-Based Cementitious Material for Extrusion-Based 3D Concrete Printing. Materials, 2019, 12, 1374.	2.9	98
71	Effect of viscosity modifier admixture on Portland cement paste hydration and microstructure. Construction and Building Materials, 2019, 212, 818-840.	7.2	42
72	An approach to develop printable strain hardening cementitious composites. Materials and Design, 2019, 169, 107651.	7.0	102

#	ARTICLE	IF	CITATIONS
73	Optimization of the Calcium Alginate Capsules for Self-Healing Asphalt. Applied Sciences (Switzerland), 2019, 9, 468.	2.5	30
74	Physical Characterization of Dutch Fine Recycled Concrete Aggregates: A Comparative Study. Proceedings (mdpi), 2019, 34, 7.	0.2	2
75	Experimentally informed micromechanical modelling of cement paste: An approach coupling X-ray computed tomography and statistical nanoindentation. Composites Part B: Engineering, 2019, 157, 109-122.	12.0	54
76	Modelling of deformation and fracture for a model quasi-brittle material with controlled porosity: Synthetic versus real microstructure. Engineering Fracture Mechanics, 2019, 205, 399-417.	4.3	15
77	Deformation and fracture of 3D printed disordered lattice materials: Experiments and modeling. Materials and Design, 2019, 162, 143-153.	7.0	66
78	Investigation of the Potential Use of Calcium Alginate Capsules for Self-Healing in Porous Asphalt Concrete. Materials, 2019, 12, 168.	2.9	36
79	Feasibility of Using Low CO2 Concrete Alternatives in Extrusion-Based 3D Concrete Printing. RILEM Bookseries, 2019, , 269-276.	0.4	11
80	Combined experimental and numerical study on micro-cube indentation splitting test of cement paste. Engineering Fracture Mechanics, 2018, 199, 773-786.	4.3	39
81	Calcium alginate capsules encapsulating rejuvenator as healing system for asphalt mastic. Construction and Building Materials, 2018, 169, 379-387.	7.2	87
82	Self-healing properties of recycled asphalt mixtures containing metal waste: An approach through microwave radiation heating. Journal of Environmental Management, 2018, 214, 242-251.	7.8	76
83	Expansion and degradation of cement paste in sodium sulfate solutions. Construction and Building Materials, 2018, 158, 410-422.	7.2	33
84	Effect of RAP and fibers addition on asphalt mixtures with self-healing properties gained by microwave radiation heating. Construction and Building Materials, 2018, 159, 164-174.	7.2	72
85	Modelling deformation and fracture of Gilsocarbon graphite subject to service environments. Journal of Nuclear Materials, 2018, 499, 18-28.	2.7	12
86	Static and Fatigue Tests on Cementitious Cantilever Beams Using Nanoindenter. Micromachines, 2018, 9, 630.	2.9	22
87	Size effect on splitting strength of hardened cement paste: Experimental and numerical study. Cement and Concrete Composites, 2018, 94, 264-276.	10.7	60
88	Self-Healing Asphalt Review: From Idea to Practice. Advanced Materials Interfaces, 2018, 5, 1800536.	3.7	120
89	Microstructure-Based Prediction of the Elastic Behaviour of Hydrating Cement Pastes. Applied Sciences (Switzerland), 2018, 8, 442.	2.5	13
90	Towards understanding stochastic fracture performance of cement paste at micro length scale based on numerical simulation. Construction and Building Materials, 2018, 183, 189-201.	7.2	45

#	ARTICLE	IF	CITATIONS
91	Effect of metallic waste addition on the electrical, thermophysical and microwave crack-healing properties of asphalt mixtures. Construction and Building Materials, 2018, 187, 1039-1050.	7.2	56
92	Deliberate Deformation of Concrete in the Fresh State - Crack Risk and Efficient Production of Curved Precast Elements. , 2018, , 2521-2529.		1
93	On the Potential of Lattice Type Model for Predicting Shear Capacity of Reinforced Concrete and SHCC Structures. , 2018, , 804-813.		5
94	Piezoresistive Properties of Cementitious Composites Reinforced by PVA Fibres. RILEM Bookseries, 2018, , 709-717.	0.4	0
95	Mechanical Properties of Ductile Cementitious Composites Incorporating Microencapsulated Phase Change Materials. RILEM Bookseries, 2018, , 115-122.	0.4	3
96	The Use of Alkaliphilic Bacteria-based Repair Solution for Porous Network Concrete Healing Mechanism. Procedia Engineering, 2017, 171, 606-613.	1.2	16
97	A comparative study of the induction healing behaviors of hot and warm mix asphalt. Construction and Building Materials, 2017, 144, 663-670.	7.2	55
98	Experimental observation of the self-healing microcapsules containing rejuvenator states in asphalt binder. Construction and Building Materials, 2017, 147, 533-542.	7.2	37
99	Development of ductile cementitious composites incorporating microencapsulated phase change materials. International Journal of Advances in Engineering Sciences and Applied Mathematics, 2017, 9, 169-180.	1.1	13
100	Recommendation of RILEM TC 246-TDC: test methods to determine durability of concrete under combined environmental actions and mechanical load. Materials and Structures/Materiaux Et Constructions, 2017, 50, 1.	3.1	11
101	Test methods to determine durability of concrete under combined environmental actions and mechanical load: final report of RILEM TC 246-TDC. Materials and Structures/Materiaux Et Constructions, 2017, 50, 1.	3.1	32
102	Experimentally validated multi-scale modelling scheme of deformation and fracture of cement paste. Cement and Concrete Research, 2017, 102, 175-186.	11.0	63
103	Experimental and numerical study of crack behaviour for capsule-based self-healing cementitious materials. Construction and Building Materials, 2017, 156, 219-229.	7.2	26
104	The compartmented alginate fibres optimisation for bitumen rejuvenator encapsulation. Journal of Traffic and Transportation Engineering (English Edition), 2017, 4, 347-359.	4.2	34
105	CoRncrete: A corn starch based building material. Construction and Building Materials, 2017, 154, 411-423.	7.2	42
106	Towards understanding the influence of porosity on mechanical and fracture behaviour of quasi-brittle materials: experiments and modelling. International Journal of Fracture, 2017, 205, 57-72.	2.2	77
107	Influence of Cracking on Moisture Uptake in Strain-Hardening Cementitious Composites. Journal of Nanomechanics & Micromechanics, 2017, 7, .	1.4	19
108	Design and testing of tubular polymeric capsules for self-healing of concrete. IOP Conference Series: Materials Science and Engineering, 2017, 251, 012003.	0.6	4

#	ARTICLE	IF	CITATIONS
109	Modeling Framework for Fracture in Multiscale Cement-Based Material Structures. <i>Materials</i> , 2017, 10, 587.	2.9	43
110	Influence of Microencapsulated Phase Change Material (PCM) Addition on (Micro) Mechanical Properties of Cement Paste. <i>Materials</i> , 2017, 10, 863.	2.9	46
111	Self-Sealing Cementitious Materials by Using Water-Swelling Rubber Particles. <i>Materials</i> , 2017, 10, 979.	2.9	3
112	Bio-based Self-healing Mortar: An Experimental and Numerical Study. <i>Journal of Advanced Concrete Technology</i> , 2017, 15, 536-543.	1.8	28
113	Research on the Mechanical, Thermal, Induction Heating and Healing Properties of Steel Slag/Steel Fibers Composite Asphalt Mixture. <i>Applied Sciences (Switzerland)</i> , 2017, 7, 1088.	2.5	56
114	Selection of Nutrient Used in Biogenic Healing Agent for Cementitious Materials. <i>Frontiers in Materials</i> , 2017, 4, .	2.4	24
115	Failure Modes in Concrete Repair Systems due to Ongoing Corrosion. <i>Advances in Materials Science and Engineering</i> , 2017, 2017, 1-14.	1.8	5
116	Upscaling Cement Paste Microstructure to Obtain the Fracture, Shear, and Elastic Concrete Mechanical LDPM Parameters. <i>Materials</i> , 2017, 10, 242.	2.9	20
117	Simulation-Aided Design of Tubular Polymeric Capsules for Self-Healing Concrete. <i>Materials</i> , 2017, 10, 10.	2.9	36
118	An Evaluation of the Efficiency of Compartmented Alginate Fibres Encapsulating a Rejuvenator as an Asphalt Pavement Healing System. <i>Applied Sciences (Switzerland)</i> , 2017, 7, 647.	2.5	36
119	Chemical Processes. <i>RILEM State-of-the-Art Reports</i> , 2017, , 79-100.	0.7	0
120	A 3D Lattice Modelling Study of Drying Shrinkage Damage in Concrete Repair Systems. <i>Materials</i> , 2016, 9, 575.	2.9	38
121	Characteristics of Ceramic Fiber Modified Asphalt Mortar. <i>Materials</i> , 2016, 9, 788.	2.9	26
122	Microscale Testing and Modelling of Cement Paste as Basis for Multi-Scale Modelling. <i>Materials</i> , 2016, 9, 907.	2.9	76
123	Micromechanical Properties of a New Polymeric Microcapsule for Self-Healing Cementitious Materials. <i>Materials</i> , 2016, 9, 1025.	2.9	71
124	Investigation of the optimal self-healing temperatures and healing time of asphalt binders. <i>Construction and Building Materials</i> , 2016, 113, 1029-1033.	7.2	80
125	Effect of fibres addition on the physical and mechanical properties of asphalt mixtures with crack-healing purposes by microwave radiation. <i>Construction and Building Materials</i> , 2016, 127, 369-382.	7.2	83
126	The reinforcement and healing of asphalt mastic mixtures by rejuvenator encapsulation in alginate compartmented fibres. <i>Smart Materials and Structures</i> , 2016, 25, 084003.	3.5	50

#	ARTICLE	IF	CITATIONS
127	Use of phase change materials (PCMs) to mitigate early age thermal cracking in concrete: Theoretical considerations. Construction and Building Materials, 2016, 126, 332-344.	7.2	78
128	Self-healing mortar with pH-sensitive superabsorbent polymers: testing of the sealing efficiency by water flow tests. Smart Materials and Structures, 2016, 25, 084007.	3.5	73
129	Fabrication and characterization of self-healing microcapsules containing bituminous rejuvenator by a nano-inorganic/organic hybrid method. Construction and Building Materials, 2016, 121, 471-482.	7.2	35
130	Tailoring material properties for 3D microfabrication: In-situ experimentation and multi-scale modelling. , 2016, , .		0
131	Bacteria-based self-healing concrete to increase liquid tightness of cracks. Construction and Building Materials, 2016, 122, 118-125.	7.2	278
132	Anm: a geometrical model for the composite structure of mortar and concrete using real-shape particles. Materials and Structures/Materiaux Et Constructions, 2016, 49, 149-158.	3.1	66
133	Synthesis and characterization of a new polymeric microcapsule and feasibility investigation in self-healing cementitious materials. Construction and Building Materials, 2016, 105, 487-495.	7.2	141
134	Bio-Based Self-Healing Concrete: From Research to Field Application. Advances in Polymer Science, 2016, , 345-385.	0.8	44
135	Experimentally informed multi-scale modelling of mechanical properties of quasi-brittle nuclear graphite. Engineering Fracture Mechanics, 2016, 153, 360-377.	4.3	45
136	Self-healing in cementitious materials: Materials, methods and service conditions. Materials and Design, 2016, 92, 499-511.	7.0	237
137	Compartmented Alginate Fibres as a Healing Agent (Rejuvenator) Delivery System and Reinforcement for Asphalt Pavemnets. , 2016, , .		1
138	Multi-scale characterization and modelling of damage evolution in nuclear Gilsocarbon graphite. Materials Research Society Symposia Proceedings, 2015, 1809, 1-6.	0.1	1
139	Nano-Indentation Testing and Modelling of Cement Paste. , 2015, , .		1
140	Drying Shrinkage Damage in Concrete Repair Systems: A 3D Modelling Study. , 2015, , .		4
141	Self-Healing Technology for Asphalt Pavements. Advances in Polymer Science, 2015, , 285-306.	0.8	58
142	A novel capsule-based self-recovery system with a chloride ion trigger. Scientific Reports, 2015, 5, 10866.	3.3	63
143	Investigation the self-healing mechanism of aged bitumen using microcapsules containing rejuvenator. Construction and Building Materials, 2015, 85, 49-56.	7.2	94
144	Experimental investigation of self-healing behavior of bitumen/microcapsule composites by a modified beam on elastic foundation method. Materials and Structures/Materiaux Et Constructions, 2015, 48, 4067-4076.	3.1	48

#	ARTICLE	IF	CITATIONS
145	Combined experimental and numerical study of fracture behaviour of cement paste at the microlevel. Cement and Concrete Research, 2015, 73, 123-135.	11.0	61
146	A numerical approach for the design of multiscale fibre-reinforced cementitious composites. Philosophical Magazine, 2015, 95, 3305-3327.	1.6	12
147	Investigation the possibility of a new approach of using microcapsules containing waste cooking oil: In situ rejuvenation for aged bitumen. Construction and Building Materials, 2015, 74, 83-92.	7.2	119
148	Corrosion induced cover cracking studied by X-ray computed tomography, nanoindentation, and energy dispersive X-ray spectrometry (EDS). Materials and Structures/Materiaux Et Constructions, 2015, 48, 2043-2062.	3.1	78
149	Experimental and Numerical Study of Water Uptake in Strained SHCC. , 2015, , .		1
150	Chloride ingress in cracked concrete: a laser induced breakdown spectroscopy (LIBS) study. Journal of Advanced Concrete Technology, 2014, 12, 425-442.	1.8	33
151	Micromechanical Study of the Interface Properties in Concrete Repair Systems. Journal of Advanced Concrete Technology, 2014, 12, 320-339.	1.8	40
152	Tailoring the Mechanical Properties of Highâ€Aspectâ€Ratio Carbon Nanotube Arrays using Amorphous Silicon Carbide Coatings. Advanced Functional Materials, 2014, 24, 5737-5744.	14.9	53
153	Experimental examination on chloride penetration through micro-crack in concrete. KSCE Journal of Civil Engineering, 2014, 18, 188-198.	1.9	27
154	Carbon Nanotubes: Tailoring the Mechanical Properties of Highâ€Aspectâ€Ratio Carbon Nanotube Arrays using Amorphous Silicon Carbide Coatings (Adv. Funct. Mater. 36/2014). Advanced Functional Materials, 2014, 24, 5736-5736.	14.9	0
155	Influence of quality and variation of recycled masonry aggregates on failure behavior of cement treated demolition waste. Construction and Building Materials, 2014, 71, 521-527.	7.2	8
156	Understanding fracture behaviour of PGA reactor core graphite: Perspective. Materials Science and Technology, 2014, 30, 129-145.	1.6	17
157	Tailoring strain-hardening cementitious composite repair systems through numerical experimentation. Cement and Concrete Composites, 2014, 53, 200-213.	10.7	41
158	Unravelling porous asphalt concrete with induction heating. Construction and Building Materials, 2014, 71, 152-157.	7.2	35
159	Characterization of sustainable bio-based mortar for concrete repair. Construction and Building Materials, 2014, 67, 344-352.	7.2	131
160	Lattice modeling of rapid chloride migration in concrete. Cement and Concrete Research, 2014, 61-62, 49-63.	11.0	67
161	Assessment of cracks in reinforced concrete by means of electrical resistance and image analysis. Construction and Building Materials, 2014, 65, 417-426.	7.2	25
162	Turning Back Time. Transportation Research Record, 2014, 2444, 52-62.	1.9	55

#	ARTICLE	IF	CITATIONS
163	Corrosion of steel in cracked concrete: A microscale study. , 2014, , 551-557.		1
164	Numerical study of a strain hardening cementitious composite overlay system for durable concrete repair. , 2014, , 827-836.		0
165	Stability investigation of self-healing microcapsules containing rejuvenator for bitumen. Polymer Degradation and Stability, 2013, 98, 1205-1215.	5.8	101
166	Addressing Infrastructure Durability and Sustainability by Self Healing Mechanisms - Recent Advances in Self Healing Concrete and Asphalt. Procedia Engineering, 2013, 54, 39-57.	1.2	92
167	Lattice modeling of chloride diffusion in sound and cracked concrete. Cement and Concrete Composites, 2013, 42, 30-40.	10.7	159
168	Experimental Techniques Used to Verify Healing. RILEM State-of-the-Art Reports, 2013, , 19-63.	0.7	3
169	Mimicking Bone Healing Process to Self Repair Concrete Structure Novel Approach Using Porous Network Concrete. Procedia Engineering, 2013, 54, 315-326.	1.2	34
170	Characterization of the material from the induction healing porous asphalt concrete trial section. Materials and Structures/Materiaux Et Constructions, 2013, 46, 831-839.	3.1	30
171	Investigating porous concrete with improved strength: Testing at different scales. Construction and Building Materials, 2013, 41, 480-490.	7.2	83
172	Cracking of the concrete cover due to reinforcement corrosion: A two-dimensional lattice model study. Construction and Building Materials, 2013, 44, 626-638.	7.2	145
173	Induction Healing of Porous Asphalt Concrete Beams on an Elastic Foundation. Journal of Materials in Civil Engineering, 2013, 25, 880-885.	2.9	51
174	Induction heating of asphalt mastic for crack control. Construction and Building Materials, 2013, 41, 345-351.	7.2	56
175	The kinetics of softening and microstructure evolution of martensite in Fe-C-Mn steel during tempering at 300°C.. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 560, 351-357.	5.6	17
176	Design and construction of microcapsules containing rejuvenator for asphalt. Powder Technology, 2013, 235, 563-571.	4.2	99
177	Dynamic behavior of porous concretes under drop weight impact testing. Cement and Concrete Composites, 2013, 39, 1-11.	10.7	28
178	Other Materials, Applications and Future Developments. RILEM State-of-the-Art Reports, 2013, , 241-256.	0.7	6
179	Modelling of Self-Healing Cementitious Materials. RILEM State-of-the-Art Reports, 2013, , 217-240.	0.7	1
180	Recovery against Mechanical Actions. RILEM State-of-the-Art Reports, 2013, , 119-215.	0.7	6

#	ARTICLE	IF	CITATIONS
181	Early Age Hydration, Microstructure and Micromechanical Properties of Cement Paste Modified with Polymeric Vesicles. Journal of Advanced Concrete Technology, 2013, 11, 291-300.	1.8	2
182	Development of self-repairing concrete structures by means of porous network. , 2013, , .		0
183	Relating the fatigue lifetime of hot rolled AA7xxx alloys to the pore size distribution as determined by 3D X-ray tomography. Materials Research Society Symposia Proceedings, 2012, 1421, 12.	0.1	0
184	Modelling of fracture in fibre-cement based materials. , 2012, , 51-60.		4
185	Influence of Microfiber Additive Effect on the Self-healing Behavior of Engineered Cementitious Composites. , 2012, , .		1
186	Induction Healing of Porous Asphalt. Transportation Research Record, 2012, 2305, 95-101.	1.9	37
187	Optimization of composition and mixing process of a self-healing porous asphalt. Construction and Building Materials, 2012, 30, 59-65.	7.2	48
188	Synthesis and physicochemical properties of high compact microcapsules containing rejuvenator applied in asphalt. Chemical Engineering Journal, 2012, 198-199, 289-300.	12.7	116
189	Drop Weight Impact Strength Measurement Method for Porous Concrete Using Laser Doppler Velocimetry. Journal of Materials in Civil Engineering, 2012, 24, 1328-1336.	2.9	5
190	Self Healing of Concrete Structures - Novel Approach Using Porous Network Concrete. Journal of Advanced Concrete Technology, 2012, 10, 185-194.	1.8	63
191	Linking Crack Tip Morphology to Tear Toughness of Hot Rolled AA7050 Alloys Using X-ray Computed Tomography. Advanced Engineering Materials, 2012, 14, 449-456.	3.5	3
192	Linking Porosity to Rolling Reduction and Fatigue Lifetime of Hot Rolled AA7xxx Alloys by 3D X-ray Computed Tomography. Advanced Engineering Materials, 2012, 14, 457-463.	3.5	4
193	The influence of admixed micelles on the microstructural properties and global performance of cement-based materials. Cement and Concrete Research, 2012, 42, 1122-1133.	11.0	14
194	Evaluation of the induction healing effect of porous asphalt concrete through four point bending fatigue test. Construction and Building Materials, 2012, 29, 403-409.	7.2	135
195	A simple model to define induction heating in asphalt mastic. Construction and Building Materials, 2012, 31, 38-46.	7.2	99
196	Predicting the Performance of the Induction Healing Porous Asphalt Test Section. RILEM Bookseries, 2012, , 1081-1089.	0.4	6
197	Synthesis and characterization of silica microcapsules using a sustainable solvent system template. Materials Research Bulletin, 2011, 46, 2445-2449.	5.2	29
198	Induction heating of mastic containing conductive fibers and fillers. Materials and Structures/Materiaux Et Constructions, 2011, 44, 499-508.	3.1	104

#	ARTICLE	IF	CITATIONS
199	Modeling of the internal damage of saturated cement paste due to ice crystallization pressure during freezing. Cement and Concrete Composites, 2011, 33, 562-571.	10.7	85
200	Induction healing of asphalt mastic and porous asphalt concrete. Construction and Building Materials, 2011, 25, 3746-3752.	7.2	160
201	Properties of capsules containing rejuvenators for their use in asphalt concrete. Fuel, 2011, 90, 583-591.	6.4	121
202	Preparation of capsules containing rejuvenators for their use in asphalt concrete. Journal of Hazardous Materials, 2010, 184, 603-611.	12.4	177
203	Influence of curing condition and precracking time on the self-healing behavior of Engineered Cementitious Composites. Cement and Concrete Composites, 2010, 32, 686-693.	10.7	174
204	Induction heating of electrically conductive porous asphalt concrete. Construction and Building Materials, 2010, 24, 1207-1213.	7.2	205
205	Application of bacteria as self-healing agent for the development of sustainable concrete. Ecological Engineering, 2010, 36, 230-235.	3.6	1,041
206	Optimization of Steel Fiber Used for Induction Heating in Porous Asphalt Concrete. , 2010, , .		14
207	Healing of Porous Asphalt Concrete <i>via</i> Induction Heating. Road Materials and Pavement Design, 2010, 11, 527-542.	4.0	34
208	Predicci3n de las propiedades mec3nicas del cemento en la micro-escala. Materiales De Construccin, 2010, 60, 7-18.	0.7	22
209	INTERFACE BOND CHARACTERISTICS BETWEEN WOOD FIBRES AND A CEMENT MATRIX. , 2009, , 43-51.		1
210	3D MODELING OF FRACTURE IN CEMENT-BASED MATERIALS. Journal of Multiscale Modeling, 2009, 01, 245-261.	1.1	50
211	Self-healing behavior of strain hardening cementitious composites incorporating local waste materials. Cement and Concrete Composites, 2009, 31, 613-621.	10.7	243
212	Electrical conductivity of asphalt mortar containing conductive fibers and fillers. Construction and Building Materials, 2009, 23, 3175-3181.	7.2	218
213	A model for building a design tool for ductile fibre reinforced materials. , 2009, , 307-312.		0
214	Modeling of frost salt scaling. Cement and Concrete Research, 2008, 38, 27-39.	11.0	74
215	Modelling of stresses and strains in bonded concrete overlays subjected to differential volume changes. Theoretical and Applied Fracture Mechanics, 2008, 49, 199-205.	4.7	30
216	A two component bacteria-based self-healing concrete. , 2008, , 119-120.		27

#	ARTICLE	IF	CITATIONS
217	Development of a bacteria-based self healing concrete. , 2008, , 109-109.		52
218	Influence of curing on the pore structure of concrete. , 2008, , 40-40.		2
219	Moisture warping in slabs on grade. , 2008, , .		0
220	Modelling the performance of ECC repair systems under differential volume changes. , 2008, , 363-364.		1
221	The Effect of Cracks on Chloride Penetration into Concrete. Key Engineering Materials, 2007, 348-349, 769-772.	0.4	26
222	Modelling of Effect of ASR on Concrete Microstructure. Key Engineering Materials, 2007, 348-349, 809-812.	0.4	10
223	Simulation of Failure in Hydrating Cement Particles Systems. Key Engineering Materials, 2007, 348-349, 737-740.	0.4	1
224	Influence of internal dilation on the fracture behaviour of multi-phase materials. Engineering Fracture Mechanics, 2007, 74, 18-33.	4.3	34
225	Recommendation of RILEM TC 200-HTC: mechanical concrete properties at high temperaturesâ€”modelling and applications. Materials and Structures/Materiaux Et Constructions, 2007, 40, 855-864.	3.1	55
226	Recommendation of RILEM TC 200-HTC: mechanical concrete properties at high temperaturesâ€”modelling and applications. Materials and Structures/Materiaux Et Constructions, 2007, 40, 841-853.	3.1	77
227	Experimental and Numerical Study of Frost Salt Scaling of Concrete. , 2006, , 387-397.		0
228	CRACK HEALING OF EARLY AGE CRACKS IN CONCRETE. , 2006, , 273-284.		18
229	Micromechanical Observation of Fracture Process in Mortars. , 2006, , 637-638.		0
230	Crack propagation simulation of concrete with the regular triangular lattice model. Computers and Concrete, 2005, 2, 165-176.	0.7	1
231	Fracture simulations of concrete using lattice models: Computational aspects. Engineering Fracture Mechanics, 1997, 57, 319-332.	4.3	448
232	Tensile cracking in concrete and sandstone: Part 1â€”Basic instruments. Materials and Structures/Materiaux Et Constructions, 1996, 29, 9-18.	3.1	21
233	Tensile cracking in concrete and sandstone: Part 2â€”Effect of boundary rotations. Materials and Structures/Materiaux Et Constructions, 1996, 29, 87-96.	3.1	29
234	New method for simulating fracture using an elastically uniform random geometry lattice. International Journal of Engineering Science, 1996, 34, 1131-1144.	5.0	150

#	ARTICLE	IF	CITATIONS
235	Crack propagation in sandstone: Combined experimental and numerical approach. Rock Mechanics and Rock Engineering, 1995, 28, 93-110.	5.4	25
236	Crack Growth Simulations in Concrete and Rock. , 1994, , 377-388.		9
237	Analyses of anchor pull-out in concrete. Materials and Structures/Materiaux Et Constructions, 1994, 27, 251-259.	3.1	28
238	Experimental and numerical study of crack propagation in sandstone. , 1994, , .		1
239	Experimental and numerical study on the behavior of concrete subjected to biaxial tension and shear. Advanced Cement Based Materials, 1993, 1, 22-37.	0.3	74
240	An Experimental and Numerical Study of Mode I (Tensile) and Mode II (Shear) Fracture in Concrete. Journal of the Mechanical Behavior of Materials, 1993, 4, 179-190.	1.8	7
241	Experimental and Numerical Analysis of Cracking in Concrete and Sandstone. , 1993, , 65-72.		1
242	Micromechanical Analysis of Fracture of Concrete. International Journal of Damage Mechanics, 1992, 1, 435-454.	4.2	51
243	Fracture Modelling of Granular Materials. Materials Research Society Symposia Proceedings, 1992, 278, 153.	0.1	5
244	Simple lattice model for numerical simulation of fracture of concrete materials and structures. Materials and Structures/Materiaux Et Constructions, 1992, 25, 534-542.	3.1	341
245	Experimental and numerical analysis of micromechanisms of fracture of cement-based composites. Cement and Concrete Composites, 1992, 14, 105-118.	10.7	317
246	Wood Fibre Reinforced Cement Matrix: A Micromechanical Based Approach. Key Engineering Materials, 0, 385-387, 445-448.	0.4	9
247	Crack Development in Concrete, Part 2: Modelling of Fracture Process. Key Engineering Materials, 0, 385-387, 73-76.	0.4	17
248	Crack Development in Concrete, Part 1: Fracture Experiments and CT-Scan Observations. Key Engineering Materials, 0, 385-387, 69-72.	0.4	14
249	Two Ways of Closing Cracks on Asphalt Concrete Pavements: Microcapsules and Induction Heating. Key Engineering Materials, 0, 417-418, 573-576.	0.4	49
250	Long / Short Term Experimental Study on Chloride Penetration in Cracked Concrete. Key Engineering Materials, 0, 417-418, 765-768.	0.4	6
251	3D Lattice Fracture Model: Theory and Computer Implementation. Key Engineering Materials, 0, 452-453, 69-72.	0.4	4
252	Computer Modelling of Crack Propagation in Porous Reactor Core Graphite. Key Engineering Materials, 0, 452-453, 729-732.	0.4	7

#	ARTICLE	IF	CITATIONS
253	3D Lattice Fracture Model: Application to Cement Paste at Microscale. Key Engineering Materials, 0, 452-453, 65-68.	0.4	5
254	The Evaluation of Deformation and Fracture of Gilsocarbon Graphite Subject to Service Environments: Experimental and Modelling. Key Engineering Materials, 0, 754, 91-94.	0.4	2
255	Coupling of Hydration and Fracture Models: Failure Mechanisms in Hydrating Cement Particle Systems. , 0, , 563-571.		2
256	Experimental and Numerical Study on Cement Paste Degradation Under External Sulfate Attack. , 0, , .		2
257	The influence of asphalt ageing on induction healing effect on porous asphalt concrete. RILEM Technical Letters, 0, 3, 98-103.	0.0	8
258	Parallel Implementation of Three-dimensional Lattice Fracture Analysis on a Distributed Memory Architecture. , 0, , .		1