Viktor Mechtcherine

List of Publications by Year
in descending order

239	11,684	23879 60	42259 96
papers	citations	h-index	g-index

275	275	275	4820
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The effects of nano- and micro-sized additives on 3D printable cementitious and alkali-activated composites: a review. Applied Nanoscience (Switzerland), 2022, 12, 805-823.	1.6	39
2	Spinability and Characteristics of Particle-Shell PP-bicomponent Fibers for Crack Bridging in Mineral-Bonded Composites. RILEM Bookseries, 2022, , 255-264.	0.2	0
3	Large-Scale Pressure-Swelling Tests on Panels Made of Strain-Hardening Cement-Based Composites with Different Bedding. RILEM Bookseries, 2022, , 749-760.	0.2	0
4	An experimental-analytical scale-linking study on the crack-bridging mechanisms in different types of SHCC in dependence on fiber orientation. Cement and Concrete Research, 2022, 152, 106650.	4.6	15
5	Influence of elevated temperatures on the residual and quasi in-situ flexural strength of strain-hardening geopolymer composites (SHGC) reinforced with PVA and PE fibers. Construction and Building Materials, 2022, 314, 125649.	3.2	13
6	Investigation of dispersion methodologies of microcrystalline and nano-fibrillated cellulose on cement pastes. Cement and Concrete Composites, 2022, 126, 104351.	4.6	13
7	Influence of Processing Conditions on the Mechanical Behavior of Mineral-Impregnated Carbon-Fiber (MCF) Made with Geopolymer. Lecture Notes in Civil Engineering, 2022, , 1173-1182.	0.3	0
8	Biochar-augmented carbon-negative concrete. Chemical Engineering Journal, 2022, 431, 133946.	6.6	74
9	Joule heating as a smart approach in enhancing early strength development of mineral-impregnated carbon-fibre composites (MCF) made with geopolymer. Composites Part A: Applied Science and Manufacturing, 2022, 153, 106750.	3.8	15
10	Structural Design and Testing of Digitally Manufactured Concrete Structures. RILEM State-of-the-Art Reports, 2022, , 187-222.	0.3	3
11	Digital Fabrication with Cement-Based Materials: Underlying Physics. RILEM State-of-the-Art Reports, 2022, , 49-98.	0.3	5
12	An experimental and numerical study on the age depended bond-slip behavior between nano-silica modified carbon fibers and cementitious matrices. Cement and Concrete Composites, 2022, 128, 104416.	4.6	16
13	Digital Fabrication with Cement-Based Materials: Process Classification and Case Studies. RILEM State-of-the-Art Reports, 2022, , 11-48.	0.3	10
14	Macro and meso analysis of cement-based materials subjected to triaxial and uniaxial loading using X-ray microtomography and digital volume correlation. Construction and Building Materials, 2022, 323, 126558.	3.2	7
15	Pumping of concrete: Understanding a common placement method with lots of challenges. Cement and Concrete Research, 2022, 154, 106720.	4.6	35
16	Systematical investigation of rheological performance regarding 3D printing process for alkali-activated materials: Effect of precursor nature. Cement and Concrete Composites, 2022, 128, 104450.	4.6	13
17	Application-Driven Material Design of Printable Strain Hardening Cementitious Composites (SHCC). Materials, 2022, 15, 1631.	1.3	4
18	Extrusion process simulation and layer shape prediction during 3D-concrete-printing using the Particle Finite Element Method. Automation in Construction, 2022, 136, 104173.	4.8	32

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19	Predicting the static yield stress of 3D printable concrete based on flowability of paste and thickness of excess paste layer. Cement and Concrete Composites, 2022, 129, 104494.	4.6	17
20	Comparison between methods for indirect assessment of buildability in fresh 3D printed mortar and concrete. Cement and Concrete Research, 2022, 156, 106764.	4.6	35
21	Buildability prediction of 3Dâ€“printed concrete at early-ages: A numerical study with Druckerâ€“Prager model. Additive Manufacturing, 2022, 55, 102821.	1.7	6
22	A roadmap for quality control of hardening and hardened printed concrete. Cement and Concrete Research, 2022, 157, 106800.	4.6	43
23	Influence of Roller Configuration on the Fiberâ€“Matrix Distribution and Mechanical Properties of Continuously Produced, Mineral-Impregnated Carbon Fibers (MCFs). Fibers, 2022, 10, 42.	1.8	10
24	Tannic acid/ethanolamine modification of PE fiber surfaces for improved interactions with cementitious matrices. Cement and Concrete Composites, 2022, 131, 104573.	4.6	8
25	A testing device to investigate the properties of strain-hardening, cement-based composites (SHCC) under impact shear loading. International Journal of Impact Engineering, 2022, 167, 104280.	2.4	7
26	3D printing and assembling of frame modules using printable strain-hardening cement-based composites (SHCC). Materials and Design, 2022, 219, 110757.	3.3	5
27	A two-phase design strategy based on the composite of mortar and coarse aggregate for 3D printable concrete with coarse aggregate. Journal of Building Engineering, 2022, 54, 104672.	1.6	3
28	Experimental modal analysis of RC beams strengthened with SHCC subjected to shear under impact strain rates. Engineering Structures, 2022, 264, 114459.	2.6	3
29	Simulation of 3D Concrete Printing Using Discrete Element Method. RILEM Bookseries, 2022, , 161-166.	0.2	2
30	Measuring Plastic Shrinkage and Related Cracking of 3D Printed Concretes. RILEM Bookseries, 2022, , 446-452.	0.2	3
31	Integration of Mineral Impregnated Carbon Fibre (MCF) into Fine 3D-Printed Concrete Filaments. RILEM Bookseries, 2022, , 397-403.	0.2	3
32	Material Design and Rheological Behavior of Sustainable Cement-Based Materials in the Context of 3D Printing. RILEM Bookseries, 2022, , 439-445.	0.2	2
33	Role of pH value on electrophoretic deposition of nano-silica onto carbon fibers for a tailored bond behavior with cementitious matrices. Applied Surface Science, 2022, 600, 154000.	3.1	10
34	Bond behavior of polymer- and mineral-impregnated carbon fiber yarns towards concrete matrices at elevated temperature levels. Cement and Concrete Composites, 2022, 133, 104685.	4.6	12
35	Electrochemical oxidation of recycled carbon fibers for an improved interaction toward alkali-activated composites. Journal of Cleaner Production, 2022, 368, 133093.	4.6	29
36	Effect of alkali treatment on physicalâ€“chemical properties of sisal fibers and adhesion towards cement-based matrices. Construction and Building Materials, 2022, 345, 128363.	3.2	20

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37	Design and optimization of free-form surfaces for modular concrete 3D printing. Automation in Construction, 2022, 141, 104432.	4.8	6
38	Mechanical behavior of strain-hardening cement-based composites (SHCC) subjected to torsional loading and to combined torsional and axial loading. Materials and Design, 2021, 198, 109371.	3.3	16
39	Micro-mechanical model for ultra-high strength and ultra-high ductility cementitious composites (UHS-UHDCC). Construction and Building Materials, 2021, 267, 120668.	3.2	27
40	Development and testing of fast curing, mineral-impregnated carbon fiber (MCF) reinforcements based on metakaolin-made geopolymers. Cement and Concrete Composites, 2021, 116, 103898.	4.6	28
41	Influence of fiber type on the tensile behavior of high-strength strain-hardening cement-based composites (SHCC) at elevated temperatures. Materials and Design, 2021, 198, 109397.	3.3	24
42	Mechanical characterization of strain-hardening cement based composites (SHCC) under impact shear load. EPJ Web of Conferences, 2021, 250, 01021.	0.1	3
43	Dynamic Single-Fiber Pull-Out of Polypropylene Fibers Produced with Different Mechanical and Surface Properties for Concrete Reinforcement. Materials, 2021, 14, 722.	1.3	17
44	Application of super absorbent polymers (SAP) in concrete constructionâ€"update of RILEM state-of-the-art report. Materials and Structures/Materiaux Et Constructions, 2021, 54, 1.	1.3	68
45	Oxygen plasma modification of carbon fiber rovings for enhanced interaction toward mineral-based impregnation materials and concrete matrices. Construction and Building Materials, 2021, 273, 121950.	3.2	18
46	Multi-walled carbon nanotube dispersion methodologies in alkaline media and their influence on mechanical reinforcement of alkali-activated nanocomposites. Composites Part B: Engineering, 2021, 209, 108559.	5.9	18
47	Thermoelectric Energy Harvesting from Single-Walled Carbon Nanotube Alkali-Activated Nanocomposites Produced from Industrial Waste Materials. Nanomaterials, 2021, 11, 1095.	1.9	13
48	Integrating reinforcement in digital fabrication with concrete: A review and classification framework. Cement and Concrete Composites, 2021, 119, 103964.	4.6	101
49	Probabilistic Finite Element Modeling of Textile Reinforced SHCC Subjected to Uniaxial Tension. Materials, 2021, 14, 3631.	1.3	2
50	Roles of Biochar and CO₂ Curing in Sustainable Magnesia Cement-Based Composites. ACS Sustainable Chemistry and Engineering, 2021, 9, 8603-8610.	3.2	62
51	On the use of limestone calcined clay cement (LC3) in high-strength strain-hardening cement-based composites (HS-SHCC). Cement and Concrete Research, 2021, 144, 106421.	4.6	76
52	Modelling the development of capillary pressure in freshly 3D-printed concrete elements. Cement and Concrete Research, 2021, 145, 106457.	4.6	28
53	Enhancing the interfacial bonding between PE fibers and cementitious matrices through polydopamine surface modification. Composites Part B: Engineering, 2021, 217, 108817.	5.9	33
54	Tensile and Flexural Behavior of Ultra-High Performance Concrete (UHPC) under Impact Loading. International Journal of Impact Engineering, 2021, 153, 103866.	2.4	20

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55	Sustainable materials for 3D concrete printing. Cement and Concrete Composites, 2021, 122, 104156.	4.6	108
56	Increasing the Fatigue Resistance of Strain-Hardening Cement-Based Composites (SHCC) by Experimental-Virtual Multi-Scale Material Design. Materials, 2021, 14, 5634.	1.3	2
57	Large-scale 3D printing concrete technology: Current status and future opportunities. Cement and Concrete Composites, 2021, 122, 104115.	4.6	157
58	Mix design concepts for 3D printable concrete: A review. Cement and Concrete Composites, 2021, 122, 104155.	4.6	137
59	A first-order physical model for the prediction of shear-induced particle migration and lubricating layer formation during concrete pumping. Cement and Concrete Research, 2021, 147, 106530.	4.6	15
60	3D-printing with foam concrete: From material design and testing to application and sustainability. Journal of Building Engineering, 2021, 43, 102870.	1.6	16
61	Role of sizing agent on the microstructure morphology and mechanical properties of mineral-impregnated carbon-fiber (MCF) reinforcement made with geopolymers. Applied Surface Science, 2021, 567, 150740.	3.1	14
62	The investigating on mechanical properties of ultra-high strength and ultra-high ductility cementitious composites (UHS-UHDCC). Journal of Building Engineering, 2021, 43, 102486.	1.6	8
63	Rheological Model to Describe the Cyclic Load-Bearing Behaviour of Strain-Hardening Cement-Based Composites (SHCC). Materials, 2021, 14, 6444.	1.3	1
64	Tensile behaviour of strain-hardening cement-based composites (SHCC) with steel reinforcing bars. Cement and Concrete Composites, 2020, 105, 103423.	4.6	13
65	Effects of strain rate on the tensile behavior of cementitious composites made with amorphous metallic fiber. Cement and Concrete Composites, 2020, 108, 103519.	4.6	9
66	Assessment and prediction of concrete flow and pumping pressure in pipeline. Cement and Concrete Composites, 2020, 107, 103495.	4.6	53
67	Mineral-impregnated carbon fiber composites as novel reinforcement for concrete construction: Material and automation perspectives. Automation in Construction, 2020, 110, 103002.	4.8	91
68	Direct printing test for buildability of 3D-printable concrete considering economic viability. Automation in Construction, 2020, 109, 102986.	4.8	71
69	A gravity-driven split Hopkinson tension bar for investigating quasi-ductile and strain-hardening cement-based composites under tensile impact loading. Cement and Concrete Composites, 2020, 105, 103430.	4.6	24
70	Crack Propagation Velocity Determination by High-speed Camera Image Sequence Processing. Materials, 2020, 13, 4415.	1.3	10
71	Influence of Crack Width in Alternating Tensionâ€“Compression Regimes on Crack-Bridging Behaviour and Degradation of PVA Microfibres Embedded in Cement-Based Matrix. Materials, 2020, 13, 4189.	1.3	6
72	Interlaboratory study on rheological properties of cement pastes and reference substances: comparability of measurements performed with different rheometers and measurement geometries. Materials and Structures/Materiaux Et Constructions, 2020, 53, 1.	1.3	43

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73	Computational Micro-Macro Analysis of Impact on Strain-Hardening Cementitious Composites (SHCC) Including Microscopic Inertia. Materials, 2020, 13, 4934.	1.3	4
74	Tailoring the crack-bridging behavior of strain-hardening cement-based composites (SHCC) by chemical surface modification of poly(vinyl alcohol) (PVA) fibers. Cement and Concrete Composites, 2020, 114, 103722.	4.6	42
75	Electrophoretic deposition of nano-silica onto carbon fiber surfaces for an improved bond strength with cementitious matrices. Cement and Concrete Composites, 2020, 114, 103777.	4.6	31
76	An Experimental Investigation of the Behavior of Strain-Hardening Cement-Based Composites (SHCC) under Impact Compression and Shear Loading. Materials, 2020, 13, 4514.	1.3	10
77	Tensile behavior of hybrid fiber reinforced composites made of strain-hardening cement-based composites (SHCC) and carbon textile. Construction and Building Materials, 2020, 262, 120913.	3.2	25
78	Tensile Behavior of High-Strength, Strain-Hardening Cement-Based Composites (HS-SHCC) Reinforced with Continuous Textile Made of Ultra-High-Molecular-Weight Polyethylene. Materials, 2020, 13, 5628.	1.3	11
79	Mechanical characterization of textile reinforced cementitious composites under impact tensile loading using the split Hopkinson tension bar. Cement and Concrete Composites, 2020, 114, 103769.	4.6	11
80	Transparent model concrete with tunable rheology for investigating flow and particle-migration during transport in pipes. Materials and Design, 2020, 193, 108673.	3.3	12
81	Plasma-generated silicon oxide coatings of carbon fibres for improved bonding to mineral-based impregnation materials and concrete matrices. Cement and Concrete Composites, 2020, 114, 103667.	4.6	20
82	Combined mechanical and 3D-microstructural analysis of strain-hardening cement-based composites (SHCC) by in-situ X-ray microtomography. Cement and Concrete Research, 2020, 136, 106139.	4.6	41
83	Extrusion-Based Additive Manufacturing with Carbon Reinforced Concrete: Concept and Feasibility Study. Materials, 2020, 13, 2568.	1.3	61
84	Experimental Insights into Concrete Flow-Regimes Subject to Shear-Induced Particle Migration (SIPM) during Pumping. Materials, 2020, 13, 1233.	1.3	30
85	Tensile behavior of strain-hardening geopolymer composites (SHGC) under impact loading. Cement and Concrete Composites, 2020, 113, 103703.	4.6	49
86	Efficacy of green alternatives and carbon dioxide curing in reactive magnesia cement-bonded particleboards. Journal of Cleaner Production, 2020, 258, 120997.	4.6	25
87	The effect of superabsorbent polymers on the mitigation of plastic shrinkage cracking of conventional concrete, results of an inter-laboratory test by RILEM TC 260-RSC. Materials and Structures/Materiaux Et Constructions, 2020, 53, 1.	1.3	26
88	Dispersion of different carbon-based nanofillers in aqueous suspension by polycarboxylate comb-type copolymers and their influence on the early age properties of cementitious matrices. Construction and Building Materials, 2020, 241, 118039.	3.2	10
89	Possibilities and challenges of constant shear rate test for evaluation of structural build-up rate of cementitious materials. Cement and Concrete Research, 2020, 130, 105974.	4.6	58
90	Semantic segmentation of the micro-structure of strain-hardening cement-based composites (SHCC) by applying deep learning on micro-computed tomography scans. Cement and Concrete Composites, 2020, 108, 103551.	4.6	50

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91	On the emergence of 3D printable Engineered, Strain Hardening Cementitious Composites (ECC/SHCC). Cement and Concrete Research, 2020, 132, 106038.	4.6	154
92	On the mechanical performance of K- and Na-based strain-hardening geopolymer composites (SHGC) reinforced with PVA fibers. Construction and Building Materials, 2020, 248, 118558.	3.2	23
93	Effects of Volume Fraction and Surface Area of Aggregates on the Static Yield Stress and Structural Build-Up of Fresh Concrete. Materials, 2020, 13, 1551.	1.3	30
94	Evaluation of Structural Build-Up Rate of Cementitious Materials by Means of Constant Shear Rate Test: Parameter Study. RILEM Bookseries, 2020, , 209-218.	0.2	11
95	Investigation on Structural Build-Up of 3D Printable Foam Concrete. RILEM Bookseries, 2020, , 301-311.	0.2	3
96	Electrical Joule heating of cementitious nanocomposites filled with multi-walled carbon nanotubes: role of filler concentration, water content, and cement age. Smart Materials and Structures, 2020, 29, 125019.	1.8	19
97	Influence of Aggregate Volume Fraction on Concrete Pumping Behaviour. RILEM Bookseries, 2020, , 303-310.	0.2	1
98	Simulating mixing processes of fresh concrete using the discrete element method (DEM) under consideration of water addition and changes in moisture distribution. Cement and Concrete Research, 2019, 115, 274-282.	4.6	39
99	Fatigue behavior of strainâ€hardening cementâ€based compositesâ€”From the single fiber level to realâ€scale application. Structural Concrete, 2019, 20, 1231-1242.	1.5	4
100	Material Design and Performance Evaluation of Foam Concrete for Digital Fabrication. Materials, 2019, 12, 2433.	1.3	51
101	Recommendations of RILEM TC 260-RSC for using superabsorbent polymers (SAP) for improving freezeâ€“thaw resistance of cement-based materials. Materials and Structures/Materiaux Et Constructions, 2019, 52, 1.	1.3	16
102	Surface modification of poly(vinyl alcohol) fibers to control the fiber-matrix interaction in composites. Colloid and Polymer Science, 2019, 297, 1079-1093.	1.0	24
103	The Impact-Tensile Behavior of Cementitious Composites Reinforced with Carbon Textile and Short Polymer Fibers. Applied Sciences (Switzerland), 2019, 9, 4048.	1.3	31
104	Neue Baustoffe als Innovationsmotor des Betonbaus. Beton- Und Stahlbetonbau, 2019, 114, 447-447.	0.4	0
105	Design of 3D printable concrete based on the relationship between flowability of cement paste and optimum aggregate content. Cement and Concrete Composites, 2019, 104, 103406.	4.6	94
106	Large-scale digital concrete construction â€“ CONPrint3D concept for on-site, monolithic 3D-printing. Automation in Construction, 2019, 107, 102933.	4.8	219
107	Influence of loading parameters in cyclic tension-compression regime on crack-bridging behaviour of PVA microfibres embedded in cement-based matrix. Construction and Building Materials, 2019, 228, 116760.	3.2	15
108	Electrochemical modification of carbon fiber yarns in cementitious pore solution for an enhanced interaction towards concrete matrices. Applied Surface Science, 2019, 487, 52-58.	3.1	34

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109	Locking Front Model for pull-out behaviour of PVA microfibre embedded in cementitious matrix. Cement and Concrete Composites, 2019, 103, 318-330.	4.6	37
110	P- and n-type thermoelectric cement composites with CVD grown p- and n-doped carbon nanotubes: Demonstration of a structural thermoelectric generator. Energy and Buildings, 2019, 191, 151-163.	3.1	77
111	Studying the Printability of Fresh Concrete for Formwork-Free Concrete Onsite 3D Printing Technology (CONPrint3D). , 2019, , 333-347.		66
112	Wood-based support material for extrusion-based digital construction. Rapid Prototyping Journal, 2019, 25, 690-698.	1.6	5
113	Effects of layer-interface properties on mechanical performance of concrete elements produced by extrusion-based 3D-printing. Construction and Building Materials, 2019, 205, 586-601.	3.2	306
114	Alternative Reinforcements for Digital Concrete Construction. RILEM Bookseries, 2019, , 167-175.	0.2	13
115	Interface characteristics of jute fiber systems in a cementitious matrix. Cement and Concrete Research, 2019, 116, 252-265.	4.6	42
116	Mineral-impregnated carbon fibre reinforcement for high temperature resistance of thin-walled concrete structures. Cement and Concrete Composites, 2019, 97, 68-77.	4.6	75
117	The connection between microscopic and macroscopic properties of ultra-high strength and ultra-high ductility cementitious composites (UHS-UHDCC). Composites Part B: Engineering, 2019, 164, 144-157.	5.9	61
118	Capillary absorption of cracked strain-hardening cement-based composites. Cement and Concrete Composites, 2019, 97, 239-247.	4.6	10
119	Strain-based approach for measuring structural build-up of cement pastes in the context of digital construction. Cement and Concrete Research, 2019, 115, 530-544.	4.6	88
120	Inline quantification of extrudability of cementitious materials for digital construction. Cement and Concrete Composites, 2019, 95, 260-270.	4.6	137
121	Capillary Water Intake by 3D-Printed Concrete Visualised and Quantified by Neutron Radiography. RILEM Bookseries, 2019, , 217-224.	0.2	25
122	An Overview on H2020 Project â€œReSHEALienceâ€• IABSE Symposium Report, 2019, , .	0.0	8
123	Carbon Fibre Reinforced Concrete: Dependency of Bond Strength on T_g of Yarn Impregnating Polymer. Materials Sciences and Applications, 2019, 10, 328-348.	0.3	5
124	Changes in concrete properties during pumping and formation of lubricating material under pressure. Cement and Concrete Research, 2018, 108, 129-139.	4.6	67
125	High-Strength, Strain-Hardening Cement-Based Composites (HS-SHCC) Made with Different High-Performance Polymer Fibers. , 2018, , 375-381.		2
126	Testing superabsorbent polymer (SAP) sorption properties prior to implementation in concrete: results of a RILEM Round-Robin Test. Materials and Structures/Materiaux Et Constructions, 2018, 51, 1.	1.3	112

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127	Virtual Sliding Pipe Rheometer for estimating pumpability of concrete. Construction and Building Materials, 2018, 170, 366-377.	3.2	45
128	Dynamic Tensile Behaviour of Strain-Hardening Cement-Based Composites (SHCC). EPJ Web of Conferences, 2018, 183, 02015.	0.1	2
129	Use of Strain-Hardening Cement-Based Composites (SHCC) for Retrofitting. MATEC Web of Conferences, 2018, 199, 09006.	0.1	4
130	Multifunctional components from carbon concrete composite C³ â€“ integrated, textile-based sensor solutions for in situ structural monitoring of adaptive building envelopes. Textile Reseach Journal, 2018, 88, 2699-2711.	1.1	1
131	Effect of Polypropylene Fibre Addition on Properties of Geopolymers Made by 3D Printing for Digital Construction. Materials, 2018, 11, 2352.	1.3	171
132	Recommendation of RILEM TC 260-RSC: using superabsorbent polymers (SAP) to mitigate autogenous shrinkage. Materials and Structures/Materiaux Et Constructions, 2018, 51, 1.	1.3	45
133	Influence of different hydrocarbons on the height of MWCNT carpets: Role of catalyst and hybridization state of the carbon precursor. Diamond and Related Materials, 2018, 90, 18-25.	1.8	2
134	Correlation of microstructural and mechanical properties of geopolymers produced from fly ash and slag at room temperature. Construction and Building Materials, 2018, 191, 330-341.	3.2	85
135	Recommendation of RILEM TC 260-RSC: testing sorption by superabsorbent polymers (SAP) prior to implementation in cement-based materials. Materials and Structures/Materiaux Et Constructions, 2018, 51, 1.	1.3	110
136	Developing and Testing of Strain-Hardening Cement-Based Composites (SHCC) in the Context of 3D-Printing. Materials, 2018, 11, 1375.	1.3	144
137	A novel test setup for the characterization of bridging behaviour of single microfibres embedded in a mineral-based matrix. Cement and Concrete Composites, 2018, 92, 92-101.	4.6	31
138	Optimal synergy between micro and nano scale: Hierarchical all carbon composite fibers for enhanced stiffness, interfacial shear strength and Raman strain sensing. Composites Science and Technology, 2018, 165, 240-249.	3.8	28
139	Vision of 3D printing with concrete â€” Technical, economic and environmental potentials. Cement and Concrete Research, 2018, 112, 25-36.	4.6	553
140	3D-printed steel reinforcement for digital concrete construction â€“ Manufacture, mechanical properties and bond behaviour. Construction and Building Materials, 2018, 179, 125-137.	3.2	211
141	Formation of lubricating layer and flow type during pumping of cement-based materials. Construction and Building Materials, 2018, 178, 507-517.	3.2	49
142	Improved Bonding of Carbon Fiber Reinforced Cement Composites by Mineral Particle Coating. RILEM Bookseries, 2018, , 392-399.	0.2	1
143	Use of Strain-Hardening Cement-Based Composites (SHCC) in Real Scale Applications. RILEM Bookseries, 2018, , 690-700.	0.2	6
144	Combination of Digital Image Correlation and Acoustic Emission for Characterizing Failure Modes in Strain-Hardening Cement-Based Composites (SHCC). RILEM Bookseries, 2018, , 300-307.	0.2	0

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145	Micro- and nanoparticle mineral coating for enhanced properties of carbon multifilament yarn cement-based composites. Composites Part B: Engineering, 2017, 111, 179-189.	5.9	81
146	Study on concrete pumpability combining different laboratory tools and linkage to rheology. Construction and Building Materials, 2017, 144, 451-461.	3.2	67
147	Tensile behavior of high-strength strain-hardening cement-based composites (HS-SHCC) made with high-performance polyethylene, aramid and PBO fibers. Cement and Concrete Research, 2017, 98, 71-81.	4.6	181
148	Heat treatment of fresh concrete by radio waves â€“ Avoiding delayed ettringite formation. Construction and Building Materials, 2017, 143, 580-588.	3.2	8
149	Effect of fibrous separators on the performance of lithiumâ€“sulfur batteries. Physical Chemistry Chemical Physics, 2017, 19, 11239-11248.	1.3	19
150	Fatigue behaviour of strain-hardening cement-based composites (SHCC). Cement and Concrete Research, 2017, 92, 75-83.	4.6	63
151	Performance of various strain-hardening cement-based composites (SHCC) subject to uniaxial impact tensile loading. Cement and Concrete Research, 2017, 102, 16-28.	4.6	94
152	Temperature- and pH-Dependent Dispersion of Highly Purified Multiwalled Carbon Nanotubes Using Polycarboxylate-Based Surfactants in Aqueous Suspension. Journal of Physical Chemistry C, 2017, 121, 16903-16910.	1.5	16
153	Failure Localization and Correlation of High-Speed Tension and Impact Tests of Strain-Hardening Cement-Based Composites. Journal of Materials in Civil Engineering, 2017, 29, .	1.3	7
154	A review of characterisation methods for superabsorbent polymer (SAP) samples to be used in cement-based construction materials: report of the RILEM TC 260-RSC. Materials and Structures/Materiaux Et Constructions, 2017, 50, 1.	1.3	89
155	Water permeability of cracked strain-hardening cement-based composites. Cement and Concrete Composites, 2017, 82, 234-241.	4.6	35
156	Impact of the molecular architecture of polycarboxylate superplasticizers on the dispersion of multi-walled carbon nanotubes in aqueous phase. Journal of Materials Science, 2017, 52, 2296-2307.	1.7	49
157	Effect of superabsorbent polymers (SAP) on the freezeâ€“thaw resistance of concrete: results of a RILEM interlaboratory study. Materials and Structures/Materiaux Et Constructions, 2017, 50, 1.	1.3	117
158	Mineral-Bonded Composites for Enhanced Structural Impact Safety â€“ A New Research Training Group GRK 2250 of the German Research Society. Procedia Engineering, 2017, 210, 182-185.	1.2	2
159	Mineral-Based Coating of Plasma-Treated Carbon Fibre Rovings for Carbon Concrete Composites with Enhanced Mechanical Performance. Materials, 2017, 10, 360.	1.3	44
160	Transfer of Fluids, Gases and Ions in and Through Cracked and Uncracked Composites. RILEM State-of-the-Art Reports, 2017, , 27-58.	0.3	6
161	Abrasion. RILEM State-of-the-Art Reports, 2017, , 119-124.	0.3	0
162	Durability and Service Life Design Concepts for Structures and (Non-)Structural Members Made of or Strengthened/Repaired with SHCC. RILEM State-of-the-Art Reports, 2017, , 171-200.	0.3	0

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