Flavio de Andrade Silva

List of Publications by Year
in descending order

123	4,732	109264	110317
papers	citations	35 h-index	64 g-index

129	129	129	2889
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Tensile behavior of high performance natural (sisal) fibers. Composites Science and Technology, 2008, 68, 3438-3443.	3.8	318
2	The effect of fiber morphology on the tensile strength of natural fibers. Journal of Materials Research and Technology, 2013, 2, 149-157.	2.6	296
3	Physical and mechanical properties of durable sisal fiberâ€“cement composites. Construction and Building Materials, 2010, 24, 777-785.	3.2	281
4	Cracking mechanisms in durable sisal fiber reinforced cement composites. Cement and Concrete Composites, 2009, 31, 721-730.	4.6	194
5	Durability of compression molded sisal fiber reinforced mortar laminates. Construction and Building Materials, 2009, 23, 2409-2420.	3.2	172
6	Recommendation of RILEM TC 232-TDT: test methods and design of textile reinforced concrete. Materials and Structures/Materiaux Et Constructions, 2016, 49, 4923-4927.	1.3	171
7	Degradation kinetics and aging mechanisms on sisal fiber cement composite systems. Cement and Concrete Composites, 2013, 40, 30-39.	4.6	163
8	Effect of fiber treatments on the sisal fiber properties and fiberâ€“matrix bond in cement based systems. Construction and Building Materials, 2015, 101, 730-740.	3.2	135
9	Coupled strain rate and temperature effects on the tensile behavior of strain-hardening cement-based composites (SHCC) with PVA fibers. Cement and Concrete Research, 2012, 42, 1417-1427.	4.6	114
10	Behaviour of Strain-Hardening Cement-Based Composites Under High Strain Rates. Journal of Advanced Concrete Technology, 2011, 9, 51-62.	0.8	111
11	Effect of hornification on the structure, tensile behavior and fiber matrix bond of sisal, jute and curauÃ¡ fiber cement based composite systems. Construction and Building Materials, 2017, 139, 551-561.	3.2	108
12	Effects of elevated temperatures on the interface properties of carbon textile-reinforced concrete. Cement and Concrete Composites, 2014, 48, 26-34.	4.6	105
13	Effect of fiber shape and morphology on interfacial bond and cracking behaviors of sisal fiber cement based composites. Cement and Concrete Composites, 2011, 33, 814-823.	4.6	101
14	Effect of elevated temperatures on the mechanical behavior of basalt textile reinforced refractory concrete. Materials & Design, 2015, 65, 24-33.	5.1	99
15	Strain rate effect on the tensile behaviour of textile-reinforced concrete under static and dynamic loading. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 1727-1734.	2.6	89
16	Influence of natural fibers characteristics on the interface mechanics with cement based matrices. Composites Part B: Engineering, 2018, 140, 183-196.	5.9	82
17	Comparative study on the mechanical behavior and durability of polypropylene and sisal fiber reinforced concretes. Construction and Building Materials, 2019, 211, 617-628.	3.2	82
18	An experimental investigation of the fatigue behavior of sisal fibers. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 516, 90-95.	2.6	76

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19	On the mechanical behavior of polypropylene, steel and hybrid fiber reinforced self-consolidating concrete. Construction and Building Materials, 2018, 188, 280-291.	3.2	72
20	Fatigue behavior of sisal fiber reinforced cement composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 5507-5513.	2.6	67
21	High speed tensile behavior of sisal fiber cement composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 544-552.	2.6	64
22	The effect of matrix composition and calcium content on the sulfate durability of metakaolin and metakaolin/slag alkali-activated mortars. Ceramics International, 2018, 44, 5037-5044.	2.3	59
23	Tension stiffening in textile-reinforced concrete under high speed tensile loads. Cement and Concrete Composites, 2015, 64, 49-61.	4.6	57
24	The influence of carbon nanotubes on the fracture energy, flexural and tensile behavior of cement based composites. Construction and Building Materials, 2019, 209, 1-8.	3.2	54
25	Mechanical behavior of hybrid steel-fiber self-consolidating concrete: Materials and structural aspects. Materials & Design, 2014, 54, 32-42.	5.1	52
26	Recycled aggregates from construction and demolition waste towards an application on structural concrete: A review. Journal of Building Engineering, 2022, 52, 104452.	1.6	52
27	Effect of Sisal Fiber Hornification on the Fiber-Matrix Bonding Characteristics and Bending Behavior of Cement Based Composites. Key Engineering Materials, 0, 600, 421-432.	0.4	50
28	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
29	Design of strain hardening cement-based composites with alkali treated natural curauÃ¡ fiber. Cement and Concrete Composites, 2018, 89, 150-159.	4.6	49
30	Tensile behavior of strain-hardening geopolymer composites (SHGC) under impact loading. Cement and Concrete Composites, 2020, 113, 103703.	4.6	49
31	Tensile strength of a calcium-aluminate cementitious composite reinforced with basalt textile in a high-temperature environment. Cement and Concrete Composites, 2016, 70, 183-193.	4.6	45
32	The effect of accelerated aging on the interface of jute textile reinforced concrete. Cement and Concrete Composites, 2016, 74, 7-15.	4.6	45
33	The use of iron ore tailings obtained from the Germano dam in the production of a sustainable concrete. Journal of Cleaner Production, 2021, 278, 123929.	4.6	44
34	Interface characteristics of jute fiber systems in a cementitious matrix. Cement and Concrete Research, 2019, 116, 252-265.	4.6	42
35	On the influence of Dendrocalamus giganteus bamboo microstructure on its mechanical behavior. Construction and Building Materials, 2016, 127, 199-209.	3.2	38
36	Determination of the fracture parameters of steel fiber-reinforced geopolymer concrete. Theoretical and Applied Fracture Mechanics, 2020, 107, 102568.	2.1	38

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37	Prediction of the residual flexural strength of fiber reinforced concrete using artificial neural networks. Construction and Building Materials, 2021, 303, 124502.	3.2	38
38	Three-Dimensional Microstructure Visualization of Porosity and Fe-Rich Inclusions in SiC Particle-Reinforced Al Alloy Matrix Composites by X-Ray Synchrotron Tomography. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2010, 41, 2121-2128.	1.1	36
39	The Influence of Fiber Treatment on the Mechanical Behavior of Jute Textile Reinforced Concrete. Key Engineering Materials, 0, 600, 469-474.	0.4	36
40	Inverse identification of the bond behavior for jute fibers in cementitious matrix. Composites Part B: Engineering, 2016, 95, 440-452.	5.9	35
41	Experimental investigation and modelling of the temperature effects on the tensile behavior of textile reinforced refractory concretes. Cement and Concrete Composites, 2017, 75, 51-61.	4.6	35
42	InfluÃªncia de ciclos molhagem-secagem em fibras de sisal sobre a aderÃªncia com matrizes de cimento Portland. Revista Materia, 2012, 17, 1024-1034.	0.1	33
43	Degradation mechanisms of curaua, hemp, and sisal fibers exposed to elevated temperatures. BioResources, 2019, 14, 1494-1511.	0.5	32
44	Mechanical Behavior of Natural Sisal Fibers. Journal of Biobased Materials and Bioenergy, 2010, 4, 106-113.	0.1	31
45	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
46	Effect of steel fiber hybridization on the fracture behavior of self-consolidating concretes. Cement and Concrete Composites, 2014, 54, 100-109.	4.6	26
47	Charpy Impact Tests of Epoxy Composites Reinforced with Giant Bamboo Fibers. Materials Research, 2015, 18, 178-184.	0.6	26
48	On The Mechanical Behavior of Metakaolin Based Geopolymers Under Elevated Temperatures. Materials Research, 2017, 20, 265-272.	0.6	26
49	The durability of SHCC with alkali treated curaua fiber exposed to natural weathering. Cement and Concrete Composites, 2018, 94, 116-125.	4.6	24
50	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
51	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
52	Silica Fume as Precursor in the Development of Sustainable and High-Performance MK-Based Alkali-Activated Materials Reinforced With Short PVA Fibers. Frontiers in Materials, 2019, 6, .	1.2	19
53	Carbon textile reinforced concrete: materials and structural analysis. Materials and Structures/Materiaux Et Constructions, 2020, 53, 1.	1.3	19
54	Mechanical behavior of strain-hardening geopolymer composites reinforced with natural and PVA fibers. Materials Today: Proceedings, 2019, 8, 753-759.	0.9	18

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55	Influence of steel fibers on the flexural behavior of RC beams with low reinforcing ratios: Analytical and experimental investigation. Composite Structures, 2019, 222, 110926.	3.1	18
56	The influence of carboxylated styrene butadiene rubber coating on the mechanical performance of vegetable fibers and on their interface with a cement matrix. Construction and Building Materials, 2020, 262, 120770.	3.2	17
57	The Influence of Fiber Treatment on the Morphology, Water Absorption Capacity and Mechanical Behavior of CurauÃ¡ Fibers. Journal of Natural Fibers, 2022, 19, 642-657.	1.7	17
58	Characterization by microcomputed tomography of class G oil well cement paste exposed to elevated temperatures. Journal of Petroleum Science and Engineering, 2019, 175, 896-904.	2.1	16
59	Mechanical autogenous recovery and crack sealing of natural curauÃ¡ textile reinforced concrete. Construction and Building Materials, 2020, 235, 117476.	3.2	16
60	Thermo-mechanical behavior of stainless steel fiber reinforced refractory concrete: Experimental and numerical analysis. Construction and Building Materials, 2020, 240, 117881.	3.2	16
61	Test Methods for the Characterization of Polypropylene Fiber Reinforced Concrete: A Comparative Analysis. KSCE Journal of Civil Engineering, 2020, 24, 856-866.	0.9	16
62	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
63	The influence of alumina content on the chemical and mechanical behavior of refractory concretes fired at different temperatures. Construction and Building Materials, 2018, 187, 1214-1223.	3.2	15
64	Calcium-aluminate mortars at high temperatures: Overcoming adverse conversion effects using clinker aggregates. Cement and Concrete Composites, 2019, 96, 212-224.	4.6	15
65	On the use of natural curauÃ¡ reinforced cement based composites for structural applications. Cement and Concrete Composites, 2020, 114, 103775.	4.6	15
66	Pull-out behavior and tensile response of natural fibers under different relative humidity levels. Construction and Building Materials, 2021, 308, 124823.	3.2	15
67	Effect of Natural Fiber Hornification on the Fiber Matrix Interface in Cement Based Composite Systems. Key Engineering Materials, 0, 668, 118-125.	0.4	14
68	Effect of moisture movement on the tensile stressâ€“strain behavior of SHCC with alkali treated curauÃ¡ fiber. Materials and Structures/Materiaux Et Constructions, 2020, 53, 1.	1.3	14
69	Addition of Paper Sludge Waste into Lime for Mortar Production. Materials Science Forum, 2015, 820, 609-614.	0.3	13
70	Influence of moderate/high temperatures on the residual flexural behavior of pultruded GFRP. Composites Part B: Engineering, 2020, 200, 108335.	5.9	13
71	Mechanical behavior of Kâ€geopolymers reinforced with silaneâ€coated basalt fibers. Journal of the American Ceramic Society, 2021, 104, 437-447.	1.9	13
72	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

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73	Investigation of dispersion methodologies of microcrystalline and nano-fibrillated cellulose on cement pastes. Cement and Concrete Composites, 2022, 126, 104351.	4.6	13
74	Effect of Cellulose Nanopulp on Autogenous and Drying Shrinkage of Cement Based Composites. , 2015, , 325-330.		12
75	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
76	Concrete degradation mechanisms by sulfuric acid attack. Magazine of Concrete Research, 2019, 71, 349-361.	0.9	11
77	Effect of Peach Palm Fiber Microstructure on its Tensile Behavior. BioResources, 2016, 11, .	0.5	10
78	Experimental and numerical research on the potentialities of layered reinforcement configuration of continuous sisal fibers for thin mortar panels. Construction and Building Materials, 2016, 102, 792-801.	3.2	10
79	An appraisal of procedures to determine the flow curve of cement slurries. Journal of Petroleum Science and Engineering, 2017, 159, 617-623.	2.1	10
80	The impact of cement slurry aging creep on the construction process of oil wells. Journal of Petroleum Science and Engineering, 2017, 157, 422-429.	2.1	10
81	Influence of Alkaline Hornification Treatment Cycles on the Mechanical Behavior in Curaua Fibers. Macromolecular Symposia, 2018, 381, 1800096.	0.4	10
82	Coupled temperature and moisture effects on the tensile behavior of strain hardening cementitious composites (SHCC) reinforced with PVA fibers. Materials and Structures/Materiaux Et Constructions, 2018, 51, 1.	1.3	10
83	On the mechanical behavior of hybrid fiber reinforced strain hardening cementitious composites subjected to monotonic and cyclic loading. Journal of Materials Research and Technology, 2021, 11, 754-768.	2.6	10
84	Flexural behavior of sandwich panels combining curauÃ¡ fiber-reinforced composite layers and autoclaved aerated concrete core. Construction and Building Materials, 2021, 286, 122890.	3.2	10
85	Mechanical Behavior of Self-Compacting Soil-Cement-Sisal Fiber Composites. Key Engineering Materials, 0, 634, 421-432.	0.4	9
86	Repair of pre-damaged RC beams using hybrid fiber reinforced strain hardening cementitious composites. Engineering Structures, 2021, 235, 112081.	2.6	9
87	Effect of Polyaniline and H₂O₂ Surface Modification on the Tensile Behavior and Chemical Properties of Coir Fibers. Journal of Biobased Materials and Bioenergy, 2014, 8, 578-586.	0.1	9
88	Influence of hornification on the physical and flexural properties of Moso bamboo. Construction and Building Materials, 2020, 248, 118701.	3.2	9
89	Creep of pre-cracked sisal fiber reinforced cement based composites. Construction and Building Materials, 2021, 293, 123511.	3.2	8
90	Interfacial mechanics of steel fibers in a High-Strength Fiber-Reinforced Self Compacting Concrete. Construction and Building Materials, 2021, 301, 124344.	3.2	8

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91	Development and analysis of sponge gourd (Luffa cylindrica L.) fiber-reinforced cement composites. BioResources, 2019, 14, 9981-9993.	0.5	8
92	Mechanical behavior and durability of compression moulded sisal fiber-cement mortar laminates (SFCML). , 2006, , .		8
93	Influence of precursor materials on the fresh state and thermo-chemo-mechanical properties of sodium-based geopolymers. Ceramics International, 2022, 48, 19806-19817.	2.3	8
94	Flexural behavior of hybrid steel fiber reinforced self-consolidating concretes. Revista Escola De Minas, 2014, 67, 27-32.	0.1	7
95	Enhanced silk performance by enriching the silkworm diet with bordeaux mixture. Journal of Materials Science, 2017, 52, 2684-2693.	1.7	7
96	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
97	The use of the Barcelona test as quality control of fiber reinforced shotcrete for underground mining. Construction and Building Materials, 2020, 262, 120719.	3.2	7
98	Numerical modelling of the thermo-mechanical behaviour of refractory concrete lining. Magazine of Concrete Research, 2021, 73, 1048-1059.	0.9	7
99	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
100	Effect of Na2O/SiO2 and K2O/SiO2 mass ratios on the compressive strength of non-silicate metakaolin geopolymeric mortars. Materials Research Express, 2019, 6, 075514.	0.8	6
101	Mechanics of natural curauÃ¡ textile-reinforced concrete. Magazine of Concrete Research, 2021, 73, 135-146.	0.9	6
102	Creep Mechanisms in Precracked Polypropylene and Steel Fiberâ€“Reinforced Concrete. Journal of Materials in Civil Engineering, 2021, 33, .	1.3	6
103	Sisal textile reinforced concrete: Improving tensile strength and bonding through peeling and nano-silica treatment. Construction and Building Materials, 2021, 301, 124300.	3.2	5
104	Impact Behavior of Sisal Fiber Cement Composites under Flexural Load. ACI Materials Journal, 2011, 108, .	0.3	5
105	A multi-scale investigation of the mechanical behavior of durable sisal fiber cement composites. Revista Materia, 2010, 15, 338-344.	0.1	4
106	Autogenous healing capability of natural curauÃ¡ textile reinforced concrete. Procedia Engineering, 2017, 200, 290-294.	1.2	4
107	On the shear behavior of natural curauÃ¡ fabric reinforced cement-based composite systems. Engineering Structures, 2021, 246, 113054.	2.6	4
108	On the design of the fiber reinforced shotcrete applied as primary rock support in the CuiabÃ¡ underground mining excavations: A case study. Case Studies in Construction Materials, 2021, 15, e00784.	0.8	4

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109	TENSILE FATIGUE RESPONSE OF SISAL FIBER REINFORCED CEMENT COMPOSITES. , 2009, , 81-90.		3
110	Early-age shrinkage of cement pastes with polypropylene and curaua fibres. Advances in Cement Research, 2021, 33, 156-167.	0.7	3
111	Fiber Durability. RILEM State-of-the-Art Reports, 2017, , 59-78.	0.3	3
112	Mechanics and Cracking Mechanisms in Natural CurauÃ¡ Textile Reinforced Concrete. RILEM Bookseries, 2018, , 359-366.	0.2	3
113	Experimental modal analysis of RC beams strengthened with SHCC subjected to shear under impact strain rates. Engineering Structures, 2022, 264, 114459.	2.6	3
114	The use of X-ray microtomography to investigate the shear behavior of hybrid fiber reinforced strain hardening cementitious composites. Journal of Building Engineering, 2021, 43, 103126.	1.6	2
115	Evaluation of Fiberâ€“Matrix Bond in the Mechanical Behavior of Geopolymer Composites Reinforced with Natural Fibers. Advances in Civil Engineering Materials, 2019, 8, 361-375.	0.2	2
116	The use of GPR to investigate the effect of steel fiber distribution on the mechanical behavior of FRC. Construction and Building Materials, 2022, 344, 128248.	3.2	2
117	Mechanical Behavior of Geopolymeric Composites Reinforced with Natural Fibers. RILEM Bookseries, 2018, , 383-391.	0.2	1
118	Influence of Elevated Temperatures. RILEM State-of-the-Art Reports, 2017, , 109-118.	0.3	1
119	Characterization of Clayey Soils from Visconde Do Rio Branco for Fired Ceramic Bricks. Materials Science Forum, 0, 820, 443-448.	0.3	0
120	Mathematical Simulation of Thermal and Moisture Gradients in Ceramic Blocks. Materials Science Forum, 0, 820, 474-479.	0.3	0
121	Inverse Identification of the Bond-Slip Law for Sisal Fibers in High-Performance Cementitious Matrices. Lecture Notes in Civil Engineering, 2018, , 58-70.	0.3	0
122	Comportamento do concreto sob altas temperaturas via planejamento experimental fatorial com configuraÃ§Ã£o estrela. Ambiente ConstruÃdo, 2018, 18, 327-344.	0.2	0
123	Properties of recycled aggregates from different composition and its influence on concrete strength. Revista IBRACON De Estruturas E Materiais, 2021, 14, .	0.3	0