Flexural Strengthening of RC Beams with an Externally Cementitious Matrix

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Citation Report

#	Article	IF	CITATIONS
1	Shear strengthening of un-reinforced concrete masonry walls with fabric-reinforced-cementitious-matrix. Construction and Building Materials, 2014, 65, 243-253.	3.2	88
2	Prediction of Flexural Capacity of RC Beams Strengthened in Flexure with FRP Fabric and Cementitious Matrix. International Journal of Polymer Science, 2015, 2015, 1-11.	1.2	22
3	Shear Strengthening Performance of Hybrid FRP-FRCM. Advances in Materials Science and Engineering, 2015, 2015, 1-11.	1.0	9
4	Tensile Behaviors of Basalt, Carbon, Glass, and Aramid Fabrics under Various Strain Rates. Journal of Materials in Civil Engineering, 2016, 28, .	1.3	36
5	Investigations on textile-reinforced concrete as cover for RC beams. Magazine of Concrete Research, 2016, 68, 1040-1050.	0.9	9
6	Innovative solution to retrofit RC members: Inhibiting-Repairing-Strengthening (IRS). Construction and Building Materials, 2016, 117, 171-181.	3.2	20
7	Numerical simulation of tests for the evaluation of the performance of the reinforced concrete slabs strengthening by FRCM. Curved and Layered Structures, 2016, 3, .	0.5	2
8	Experimental Investigation on Bond Behavior of Cement-Matrix–Based Composites for Strengthening of Masonry Structures. Journal of Composites for Construction, 2016, 20, .	1.7	54
9	Experimental Investigations of the Bending Fatigue Performance of TRC-Strengthened RC Beams in Conventional and Aggressive Chlorate Environments. Journal of Composites for Construction, 2016, 20, .	1.7	29
10	Use of DIC and AE for Monitoring Effective Strain and Debonding in FRP and FRCM-Retrofitted RC Beams. Journal of Composites for Construction, 2017, 21, .	1.7	26
11	Flexural Strengthening of Two-Way RC Slabs with Textile-Reinforced Mortar: Experimental Investigation and Design Equations. Journal of Composites for Construction, 2017, 21, .	1.7	66
12	Research on the flexural performance of RC beams strengthened with TRC under the coupling action of load and marine environment. Construction and Building Materials, 2017, 132, 251-261.	3.2	36
13	Impregnated Carbon Fabric–Reinforced Cementitious Matrix Composite for Rehabilitation of the Finale Emilia Hospital Roofs: Case Study. Journal of Composites for Construction, 2017, 21, .	1.7	25
14	Experimental comparison of reinforced concrete beams strengthened against bending with different types of cementitious-matrix composite materials. Construction and Building Materials, 2017, 137, 317-329.	3.2	82
15	An indirect method to calibrate the interfacial cohesive material law for FRCM-concrete joints. Materials and Design, 2017, 128, 206-217.	3.3	63
16	Fabric-reinforced cementitious matrix: A promising strengthening technique for concrete structures. Construction and Building Materials, 2017, 132, 94-111.	3.2	129
17	Finite element study on the behavior of RC beams strengthened with PBO-FRCM composite under torsion. Composite Structures, 2017, 179, 326-339.	3.1	14
18	Performance of FRCM-Strengthened RC Beams Subject to Fatigue. Journal of Bridge Engineering, 2017, 22, .	1.4	43

ARTICLE IF CITATIONS # An Innovative Solution for the Structural Consolidation of RC Modern Cultural Heritage. 19 1.7 4 International Journal of Architectural Heritage, 2017, 11, 829-842. Textile-reinforced mortar (TRM) versus fibre-reinforced polymers (FRP) in flexural strengthening of 3.2 RC beams. Construction and Building Materials, 2017, 151, 279-291. Single-lap shear bond tests on Steel Reinforced Geopolymeric Matrix-concrete joints. Composites Part 21 5.9 38 B: Engineering, 2017, 110, 62-71. Repair of Damaged Prestressed Concrete Girders with FRP and FRCM Composites. Journal of Composites for Construction, 2017, 21, . Effectiveness of Fabric-Reinforced Cementitious Matrix in Strengthening Reinforced Concrete Beams. 23 1.7 86 Journal of Composites for Construction, 2017, 21, . Fatigue and Flexural Behavior of Reinforced-Concrete Beams Strengthened with Fiber-Reinforced Cementitious Matrix. Journal of Composites for Construction, 2017, 21, . 1.7 Strength Analysis of Reinforced Concrete Beams Affected by Fire Using Glass Fiber Sheet and PP Fiber 25 ECC as Binders. Iranian Journal of Science and Technology - Transactions of Civil Engineering, 2017, 41, 1.0 4 37-47. Effect of the Fiber Type and Axial Stiffness of FRCM on the Flexural Strengthening of RC Beams. Fibers, 1.8 26 2017, 5, 2. Flexural behaviour of RC members strengthened with FRCM: State-of-the-art and predictive formulas. 27 5.9 74 Composites Part B: Engineering, 2018, 148, 132-148. Experimental and theoretical investigations on crack spacing and stiffness of textile-reinforced concrete–strengthened reinforced concrete beams. Advances in Structural Engineering, 2018, 21, 1.2 1696-1707. Post-repair flexural performance of corrosion-damaged beams rehabilitated with fabric-reinforced 29 3.2 42 cementitious matrix (FRCM). Construction and Building Materials, 2018, 166, 732-744. A study of the effect of fiber orientation on the torsional behavior of RC beams strengthened with 3.2 PBO-FRCM composite. Construction and Building Materials, 2018, 166, 839-854. Flexural strengthening of reinforced concrete beams with prestressed and unprestressed $\mathbf{31}$ 1.2 6 fabric-reinforced cementitious plates. Advances in Structural Engineering, 2018, 21, 975-989. Textile fine grained mortar layers on reinforced concrete beam: The new structure technology. AIP 0.3 Conference Proceedings, 2018, , . Efficacy of FRCM systems in flexural strengthening of RC T-beams. IOP Conference Series: Materials 33 0.3 2 Science and Engineering, 2018, 431, 072007. Acceptance Criteria for Tensile Characterization of Fabric-Reinforced Cementitious Matrix Systems 53 for Concrete and Masonry Repair. Journal of Composites for Construction, 2018, 22, . Using textile reinforced mortar modified with carbon nano tubes to improve flexural performance of 35 3.138 RC beams. Composite Structures, 2018, 200, 127-134. Flexural behaviors of fiber-reinforced polymer fabric reinforced ultra-high-performance concrete panels. Cement and Concrete Composites, 2018, 93, 43-53.

#	Article	IF	Citations
37	Flexural Behavior of RC Slabs Strengthened in Flexure with Basalt Fabric-Reinforced Cementitious Matrix. Advances in Materials Science and Engineering, 2018, 2018, 1-12.	1.0	6
38	Corrosion-Damaged RC Beams Repaired with Fabric-Reinforced Cementitious Matrix. Journal of Composites for Construction, 2018, 22, .	1.7	34
39	Experimental results and modelling of corrosion-damaged concrete beams strengthened with externally-bonded composites. Engineering Structures, 2018, 172, 172-186.	2.6	30
40	Analytical Bond-Slip Model for Fiber-Reinforced Cementitious Matrix-Concrete Joints Based on Strain Measurements. Journal of Materials in Civil Engineering, 2019, 31, .	1.3	16
41	Experimental and analytical study on strengthening of reinforced concrete T-beams in shear using steel reinforced grout (SRG). Composites Part B: Engineering, 2019, 177, 107368.	5.9	21
42	Out-of-plane seismic retrofitting of masonry walls with Textile Reinforced Mortar composites. Bulletin of Earthquake Engineering, 2019, 17, 6265-6300.	2.3	47
43	Experimental Study on Flexural Behavior of TRM-Strengthened RC Beam: Various Types of Textile-Reinforced Mortar with Non-Impregnated Textile. Applied Sciences (Switzerland), 2019, 9, 1981.	1.3	10
44	Analytical solution of the bond behavior of FRCM composites using a rigid-softening cohesive material law. Composites Part B: Engineering, 2019, 174, 107051.	5.9	41
45	Organic versus inorganic matrix composites for bond-critical strengthening applications of RC structures – State-of-the-art review. Composites Part B: Engineering, 2019, 174, 106947.	5.9	29
46	Analytical assessment of the stress-transfer mechanism in FRCM composites. Composite Structures, 2019, 220, 961-970.	3.1	40
47	A novel and effective anchorage system for enhancing the flexural capacity of RC beams strengthened with FRCM composites. Composite Structures, 2019, 210, 20-28.	3.1	23
48	Sprayed Glass Fiber–Reinforced Mortar with or without Basalt Textile Reinforcement for Jacketing of Low-Strength Concrete Prisms. Journal of Composites for Construction, 2019, 23, .	1.7	17
49	Analytical Study on the Torsional Behavior of Reinforced Concrete Beams Strengthened with FRCM Composite. Journal of Composites for Construction, 2019, 23, .	1.7	9
50	Strengthening of Concrete Structures with Textile Reinforced Mortars: State-of-the-Art Review. Journal of Composites for Construction, 2019, 23, .	1.7	279
51	Tensile behaviour of carbon fabric reinforced cementitious matrix composites as both strengthening and anode materials. Composite Structures, 2020, 234, 111675.	3.1	25
52	Shear Strength Model for RC Beams with U-Wrapped FRCM Composites. Journal of Composites for Construction, 2020, 24, 04019057.	1.7	36
53	Flexural strengthening of reinforced concrete beams using hybrid near-surface embedded/externally bonded fabric-reinforced cementitious matrix. Construction and Building Materials, 2020, 238, 117748.	3.2	21
54	Synthesis of Repair Materials and Methods for Reinforced Concrete and Prestressed Bridge Girders. Materials, 2020, 13, 4079.	1.3	13

#	Article	IF	CITATIONS
55	Confinement of masonry columns with textile-reinforced mortar jackets. Construction and Building Materials, 2020, 258, 120343.	3.2	23
56	Experimental investigation on shear behavior of RC beams strengthened by CFRP grids and PCM. Structures, 2020, 27, 1994-2010.	1.7	13
57	Some Key Aspects in the Mechanics of Stress Transfer Between SRG and Masonry. Applied Sciences (Switzerland), 2020, 10, 7303.	1.3	1
58	Suitability Evaluation of Structural Analysis Approaches for Determining the Flexural Capacity of Reinforced Concrete Elements Strengthened with Textile-Reinforced Mortar. Structural Engineering International: Journal of the International Association for Bridge and Structural Engineering (IABSE), 2020, 30, 545-550.	0.5	1
59	Strengthening of Concrete Element with Precast Textile Reinforced Concrete Panel and Grouting Material. Materials, 2020, 13, 3856.	1.3	10
60	Performance of Corroded Reinforced-Concrete Beams in Flexure Strengthened Using Different Basalt Fiber Textile-Reinforced Mortar Schemes. Journal of Composites for Construction, 2020, 24, .	1.7	12
61	Flexural Strengthening of Concrete Slab-Type Elements with Textile Reinforced Concrete. Materials, 2020, 13, 2246.	1.3	14
62	Bending properties of textile reinforced concrete sandwich beams with gypsum and calcium silicate core. Journal of Sandwich Structures and Materials, 2021, 23, 3558-3573.	2.0	4
63	Experimental Study of Flexural Behavior of Reinforced Concrete Beam Strengthened with Prestressed Textile-Reinforced Mortar. Materials, 2020, 13, 1137.	1.3	11
64	Performances, challenges and opportunities in strengthening reinforced concrete structures by using FRPs – A state-of-the-art review. Engineering Failure Analysis, 2020, 111, 104480.	1.8	128
65	Load-deflection behaviour of concrete slab-type elements casted on stay-in-place TRC formwork. Composite Structures, 2020, 244, 112310.	3.1	23
66	Flexural strengthening of flat slabs with FRP composites using EBR and EBROG methods. Engineering Structures, 2020, 211, 110483.	2.6	35
67	The effectiveness of FRCM-U-wrap joist: An alternative solution in flexural strengthening of reinforced concrete beams. Mechanics of Advanced Materials and Structures, 2021, 28, 237-251.	1.5	2
68	Artificial Neural Network–Based Numerical Model to Predict Flexural Capacity of Masonry Panels Strengthened with Textile Reinforced Mortar. Journal of Composites for Construction, 2021, 25, .	1.7	8
69	Strengthening of reinforced concrete beams in shear using different steel reinforced grout techniques. Structural Concrete, 2021, 22, 1113-1127.	1.5	9
71	Applications of Fabric Reinforced Cementitious Mortar (FRCM) in Structural Strengthening. Composites Science and Technology, 2021, , 201-233.	0.4	2
72	Interface Evaluation of Carbon Textile Reinforced Composites. RILEM Bookseries, 2021, , 205-215.	0.2	1
73	Experimental Study on Eccentric Compressive Performance of Concrete Column Strengthened with CFRP Grid Reinforced ECC Matrix. Advances in Civil Engineering, 2021, 2021, 1-8.	0.4	2

#	Article	IF	CITATIONS
74	Concrete Slab-Type Elements Strengthened with Cast-in-Place Carbon Textile Reinforced Concrete System. Materials, 2021, 14, 1437.	1.3	6
75	Strengthening of preloaded RC beams using prestressed carbon textile reinforced mortar plates. Structures, 2021, 30, 735-744.	1.7	11
76	Analytical Approach and Numerical Simulation of Reinforced Concrete Beams Strengthened with Different FRCM Systems. Materials, 2021, 14, 1857.	1.3	10
77	A simplified design approach for predicting the flexural behavior of TRM-strengthened RC beams under cyclic loads. Construction and Building Materials, 2021, 285, 122799.	3.2	8
78	Flexural Strengthening of Two-Way RC Slabs with Cut Openings Using Textile-Reinforced Mortar Composites. Journal of Composites for Construction, 2021, 25, .	1.7	7
79	Reinforced Concrete Slabs Strengthened with Lap-Spliced Carbon TRC System. Materials, 2021, 14, 3340.	1.3	5
80	Textile-Reinforced Mortar (TRM) Strengthened One-Way Reinforced Concrete Slabs. Tikrit Journal of Engineering Science, 2021, 28, 107-123.	0.2	0
81	Experimental and analytical investigation of PBO FRCM-concrete bond behavior using direct and indirect shear test set-ups. Composite Structures, 2021, 267, 113672.	3.1	18
82	Non-Iterative Model for Analysis of RC Beams Strengthened with Textile Reinforced Concrete. Australian Journal of Structural Engineering, 0, , 1-12.	0.4	0
83	Low- and High-Cycle Fatigue Behavior of FRCM Composites. Materials, 2021, 14, 5412.	1.3	9
84	Experimental investigation and strength model of RC deep beams externally bonded by CFRP. Advances in Structural Engineering, 2021, 24, 3645-3657.	1.2	5
85	Experimental and analytical study on the behavior of RC beams with externally bonded carbon-FRCM composites. Composite Structures, 2021, 273, 114291.	3.1	13
86	Flexural strengthening of RC beams with textile-reinforced mortar composites focusing on the influence of the mortar type. Engineering Structures, 2021, 246, 113060.	2.6	17
87	Assessment and modeling of the debonding failure of fabric-reinforced cementitious matrix (FRCM) systems. Composite Structures, 2021, 275, 114394.	3.1	20
88	Characterization and Design of Multilayer PBO FRCM Composite Reinforcements for Concrete Structures. Journal of Composites for Construction, 2021, 25, .	1.7	11
89	Experimental investigation and numerical analysis of RC beams shear strengthened with FRP/ECC composite layer. Composite Structures, 2020, 246, 112436.	3.1	53
90	Relationship between the effective strain of PBO FRCM-strengthened RC beams and the debonding strain of direct shear tests. Engineering Structures, 2020, 216, 110631.	2.6	18
91	Seismic behavior of reinforced concrete exterior beam-column joints strengthened by ferrocement composites. Earthquake and Structures, 2015, 9, 233-256.	1.0	15

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#	Article	IF	CITATIONS
92	Soffit and U-Wrap FRCM Strengthening for Reinforced Concrete Beams. ACI Structural Journal, 2019, 116, .	0.3	9
93	Performance of Corrosion-Aged Reinforced Concrete (RC) Beams Rehabilitated with Fabric-Reinforced Cementitious Matrix (FRCM). , 2016, , .		5
94	Effectiveness of FRCM System in Strengthening Reinforced Concrete Beams. , 2016, , .		3
95	Dimensioning the Flexural Strengthening of Concrete Slabs with Textile Reinforced Mortar - Litterature Data Evaluation. IABSE Symposium Report, 2018, , .	0.0	2
96	Influence of different set-up parameters on the bond behavior of FRCM composites. Construction and Building Materials, 2021, 308, 124964.	3.2	17
97	Strengthening of reinforced concrete beams in shear with fiber reinforced cementitious matrix. , 2015, , .		0
98	Flexural Characteristics of RC Beams Retrofitted using FRP and Cement Matrix Composite. IOSR Journal of Mechanical and Civil Engineering, 2016, 01, 94-99.	0.1	0
99	Strengthening of Reinforced Concrete One-Way Slabs for Flexure Using Composite Materials: Evaluation of Different Composite Materials. , 2016, , .		2
100	Textile-reinforced mortar external strengthening of corroded reinforced concrete beams. , 2019, , .		0
101	Evaluation of Flexural Behavior of Textile-Reinforced Mortar-Strengthened RC Beam Considering Strengthening Limit. Materials, 2021, 14, 6473.	1.3	4
102	High calcium fly ash geopolymer for application in textile reinforced mortar. AIP Conference Proceedings, 2021, , .	0.3	0
103	Performance of FRCM composites and FRCM-strengthened RC beams subjected to anodic polarization and cyclic loading. Engineering Structures, 2022, 250, 113475.	2.6	4
104	Effects of Thermal Conditioning at High Temperatures on the Response of Concrete Elements Confined with a PBO-FRCM Composite System. Journal of Materials in Civil Engineering, 2022, 34, .	1.3	11
105	Verification of ACI- 549 code for flexural strengthening of reinforced concrete beams using FRCM. , 2020, , .		0
106	Flexural response of reinforced concrete continuous beams strengthened with fiber-reinforced cementitious matrix (FRCM). Engineering Structures, 2022, 251, 113557.	2.6	11
107	A Cohesive Contact Algorithm to Describe the Multi-axial Bond Behavior of FRCM Composites. Lecture Notes in Civil Engineering, 2022, , 2073-2082.	0.3	2
108	A Discussion of Differences Between Single-Lap Tests and Full-Scale Beam Tests in Terms of FRCM-Concrete Debonding. Lecture Notes in Civil Engineering, 2022, , 609-620.	0.3	0
109	Strengthening the hogging and sagging regions in continuous beams with fiber-reinforced cementitious matrix (FRCM): Experimental and analytical investigations. Construction and Building Materials, 2022, 321, 126341.	3.2	4

#	Article	IF	CITATIONS
110	A numerical study on one-way RC slabs strengthened with fibre reinforced cementitious mortar (FRCM). AIP Conference Proceedings, 2022, , .	0.3	0
111	Explainable machine learning model and reliability analysis for flexural capacity prediction of RC beams strengthened in flexure with FRCM. Engineering Structures, 2022, 255, 113903.	2.6	70
112	Evaluation of mechanical properties and flexural behavior of FRCM system composed of different types of textile grid and AL powder. Construction and Building Materials, 2022, 323, 126552.	3.2	2
113	Effectiveness of carbon textile reinforced concrete in shear strengthening short-span corroded reinforced concrete beams. Case Studies in Construction Materials, 2022, 16, e00932.	0.8	3
114	Long-Term Durability of Inorganic Matrix Composite (IMC) Systems under Sustained Tensile Loading. Key Engineering Materials, 0, 916, 19-26.	0.4	1
115	Experimental and analytical investigation on flexural behaviors of cast-in-place concrete-filled flexible composite tube beams. Construction and Building Materials, 2022, 329, 127202.	3.2	3
116	Calibration of a Rigid-Trilinear Cohesive Material Law to Describe the Matrix-Fiber Bond Behavior in FRCM Composites. Key Engineering Materials, 0, 916, 393-400.	0.4	0
117	Machine learning-based shear capacity prediction and reliability analysis of shear-critical RC beams strengthened with inorganic composites. Case Studies in Construction Materials, 2022, 16, e01008.	0.8	6
118	Continuous Reinforced Concrete Beams Strengthened with Fabric-Reinforced Cementitious Matrix: Experimental Investigation and Numerical Simulation. Buildings, 2022, 12, 27.	1.4	6
119	Long-Term Behavior of PBO FRCM and Comparison with Other Inorganic-Matrix Composites. Materials, 2022, 15, 3281.	1.3	3
120	A new predictive model for FRCM-confined columns: A reflection on the composite behavior at peak stress. Construction and Building Materials, 2022, 337, 127534.	3.2	11
121	Comparative analysis of flexural performance of old full-scale hollow slab beams reinforced with fiber composites. Construction and Building Materials, 2022, 338, 127657.	3.2	2
123	Simulation of Exterior Wrapping for Flexural Study on Beams. International Journal of Advanced Research in Science, Communication and Technology, 0, , 657-663.	0.0	0
124	Fatigue testing of corroded RC continuous beams strengthened with polarized C-FRCM plate under ICCP-SS dual-function retrofitting system. Structures, 2022, 43, 12-27.	1.7	2
125	Flexural Behavior of RC Beams Strengthened with Textile Reinforced Concrete. Structural Integrity, 2023, , 213-225.	0.8	2
126	Open issues on the investigation of PBO FRCM-Concrete debonding. Composite Structures, 2022, 299, 116062.	3.1	2
127	A review on using inorganic binders in fiber reinforced polymer at different conditions to strengthen reinforced concrete beams. Construction and Building Materials, 2022, 352, 129054.	3.2	9
128	Beam tests for the determination of the interfacial properties of FRCM composites. Case Studies in Construction Materials, 2022, 17, e01485.	0.8	0

#	Article	IF	CITATIONS
130	Flexural Behavior of Textile Reinforced Mortar-Strengthened Reinforced Concrete Beams Subjected to Cyclic Loading. Buildings, 2022, 12, 1738.	1.4	4
131	Experimental and Numerical Investigations of Punching Shear Behavior of FRCM-Strengthened Two-Way RC Slabs. Journal of Composites for Construction, 2023, 27, .	1.7	4
132	FRP Strengthening of RC Structures: Sustainable, Environmental and Structural Evaluations. Journal of Sustainable Construction Materials and Technologies, 2022, 7, 358-374.	0.4	2
133	Flexural behavior of RC beams strengthened by enlarging the member size using cementitious grout: experimental and theoretical study. Materials and Structures/Materiaux Et Constructions, 2022, 55, .	1.3	3
134	Shake-table testing and numerical simulation to select the FRCM retrofit solution for flexure/shear deficient RC frames. Journal of Building Engineering, 2023, 69, 106248.	1.6	2
141	Strengthening of corroded beams using textile reinforced graphene mortar: State of the art. AIP Conference Proceedings, 2023, , .	0.3	0
144	Parametric Optimization of RC Beams Strengthened with FRCM Using FE Modelling and Response Surface Methodology. , 2023, , .		0
152	Repairing concrete structures with textile-reinforced concrete materials. , 2024, , 273-297.		0