

# Rodrigo Freire

## List of Publications by Year in descending order

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Version: 2024-02-01

70  
papers

1,649  
citations

279487

23  
h-index

315357

38  
g-index

71  
all docs

71  
docs citations

71  
times ranked

1453  
citing authors

#	ARTICLE	IF	CITATIONS
1	Auxetic materials for bioprostheses [In the Spotlight]. IEEE Signal Processing Magazine, 2008, 25, 128-126.	4.6	184
2	Tensile static and fatigue behaviour of sisal fibres. Materials & Design, 2013, 46, 76-83.	5.1	116
3	Effects of sodium carbonate on the performance of epoxy and polyester coir-reinforced composites. Polymer Testing, 2018, 67, 533-544.	2.3	80
4	The hexachiral prismatic wingbox concept. Physica Status Solidi (B): Basic Research, 2008, 245, 570-577.	0.7	75
5	Extraction and characterization of vascular bundle and fiber strand from date palm rachis as potential bio-reinforcement in composite. Carbohydrate Polymers, 2019, 222, 114997.	5.1	74
6	Hybrid polymeric composites reinforced with sisal fibres and silica microparticles. Composites Part B: Engineering, 2012, 43, 3436-3444.	5.9	62
7	Multifunctional composites: a metamaterial perspective. Multifunctional Materials, 2019, 2, 043001.	2.4	59
8	Modelling the influence of the orientation and fibre reinforcement on the Negative Poisson's ratio in composite laminates. Physica Status Solidi (B): Basic Research, 2007, 244, 883-892.	0.7	52
9	Novel fibre metal laminate sandwich composite structure with sisal woven core. Industrial Crops and Products, 2017, 99, 189-195.	2.5	50
10	Eco-friendly sodium bicarbonate treatment and its effect on epoxy and polyester coir fibre composites. Construction and Building Materials, 2019, 211, 427-436.	3.2	49
11	Sisal-glass hybrid composites reinforced with silica microparticles. Polymer Testing, 2019, 74, 57-62.	2.3	44
12	Evaluation of hybrid-short-coir-fibre-reinforced composites via full factorial design. Composite Structures, 2018, 202, 313-323.	3.1	40
13	Hybrid glass fibre reinforced composites with micro and poly-diallyldimethylammonium chloride (PDDA) functionalized nano silica inclusions. Materials & Design, 2015, 65, 543-549.	5.1	37
14	Cactus fibre/polyester biocomposites: Manufacturing, quasi-static mechanical and fatigue characterisation. Composites Science and Technology, 2013, 74, 150-159.	3.8	35
15	Investigations on short coir fibre-reinforced composites via full factorial design. Polymers and Polymer Composites, 2018, 26, 391-399.	1.0	32
16	Dynamic light scattering from an optically trapped microsphere. Physical Review E, 2002, 65, 041921.	0.8	31
17	Static, fatigue and impact behaviour of an autoclaved flax fibre reinforced composite for aerospace engineering. Composites Part B: Engineering, 2020, 197, 108049.	5.9	30
18	Impact of hybrid composites based on rubber tyres particles and sugarcane bagasse fibres. Composites Part B: Engineering, 2019, 159, 157-164.	5.9	28

#	ARTICLE	IF	CITATIONS
19	Unusual behaviour of wave propagation in auxetic structures: P-waves on free surface and S-waves in chiral lattices with piezoelectrics. <i>Physica Status Solidi (B): Basic Research</i> , 2012, 249, 1339-1346.	0.7	27
20	Sustainable sandwich composite structures made from aluminium sheets and disposed bottle caps. <i>Thin-Walled Structures</i> , 2017, 120, 38-45.	2.7	27
21	Hybrid composites based on sisal fibers and silica nanoparticles. <i>Polymer Composites</i> , 2018, 39, 146-156.	2.3	27
22	Micromechanical analysis of hybrid composites reinforced with unidirectional natural fibres, silica microparticles and maleic anhydride. <i>Materials Research</i> , 2012, 15, 1003-1012.	0.6	26
23	Statistical effects of using ceramic particles in glass fibre reinforced composites. <i>Materials &amp; Design</i> , 2014, 55, 463-470.	5.1	25
24	Sustainable sandwich structures made from bottle caps core and aluminium skins: A statistical approach. <i>Thin-Walled Structures</i> , 2018, 130, 362-371.	2.7	25
25	Hybrid bio-composites reinforced with sisal-glass fibres and Portland cement particles: A statistical approach. <i>Composites Part B: Engineering</i> , 2018, 149, 58-65.	5.9	24
26	Wave motion in auxetic solids. <i>Physica Status Solidi (B): Basic Research</i> , 2014, 251, 388-396.	0.7	22
27	Investigations on sustainable honeycomb sandwich panels containing eucalyptus sawdust, Piassava and cement particles. <i>Thin-Walled Structures</i> , 2019, 143, 106191.	2.7	22
28	Reinforced biobased adhesive for eco-friendly sandwich panels. <i>International Journal of Adhesion and Adhesives</i> , 2020, 98, 102550.	1.4	22
29	Carbon nano-ink coated open cell polyurethane foam with micro-architected multilayer skeleton for damping applications. <i>RSC Advances</i> , 2016, 6, 80334-80341.	1.7	21
30	Hybrid glass fibre reinforced composites containing silica and cement microparticles based on a design of experiment. <i>Polymer Testing</i> , 2017, 57, 87-93.	2.3	21
31	Modal strain energy based methods for the analysis of complex patterned free layer damped plates. <i>JVC/Journal of Vibration and Control</i> , 2012, 18, 1291-1302.	1.5	18
32	Improved sustainable sandwich panels based on bottle caps core. <i>Composites Part B: Engineering</i> , 2020, 199, 108165.	5.9	18
33	Development of Cycloaliphatic Epoxy-POSS Nanocomposite Matrices with Enhanced Resistance to Atomic Oxygen. <i>Molecules</i> , 2020, 25, 1483.	1.7	18
34	Full factorial design analysis of carbon nanotube polymer-cement composites. <i>Materials Research</i> , 2012, 15, 573-580.	0.6	17
35	Strain Reversal in Actuated Origami Structures. <i>Physical Review Letters</i> , 2019, 123, 025501.	2.9	16
36	Apparent shear strength of hybrid glass fibre reinforced composite joints. <i>Polymer Testing</i> , 2017, 64, 307-312.	2.3	14

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37	The effect of Portland cement inclusions in hybrid glass fibre reinforced composites based on a full factorial design. <i>Composite Structures</i> , 2018, 202, 233-240.	3.1	14
38	Some new considerations concerning the Rayleigh wave velocity in auxetic materials. <i>Physica Status Solidi (B): Basic Research</i> , 2008, 245, 578-583.	0.7	13
39	Experimental and numerical assessment of sustainable bamboo core sandwich panels under low-velocity impact. <i>Construction and Building Materials</i> , 2021, 292, 123437.	3.2	13
40	Monte Carlo study of the XYvector Blume-Emery-Griffiths model for He <sup>3</sup> –He <sup>4</sup> mixtures in three dimensions. <i>Physical Review E</i> , 2005, 72, 056117.	0.8	12
41	Hybrid silica micro and PDDA/nanoparticles-reinforced carbon fibre composites. <i>Journal of Composite Materials</i> , 2017, 51, 783-795.	1.2	10
42	Eco-friendly Sandwich Panel Based on Recycled Bottle Caps Core and Natural Fibre Composite Facings. <i>Fibers and Polymers</i> , 2020, 21, 1798-1807.	1.1	9
43	Recycled polyethylene bottle caps as sandwich panel circular honeycomb: Experimental and numerical approach. <i>Polymer Composites</i> , 2020, 41, 4678-4691.	2.3	8
44	Biopolymeric Coacervate Microvectors for the Delivery of Functional Proteins to Cells. <i>Advanced Biology</i> , 2020, 4, e2000101.	3.0	8
45	Numerical and experimental investigations on sandwich panels made with eco-friendly components under low-velocity impact. <i>Journal of Sandwich Structures and Materials</i> , 2022, 24, 419-447.	2.0	8
46	Tensile Properties Optimization of Date Palm Leaflets Using Taguchi Method. <i>Journal of Natural Fibers</i> , 2022, 19, 6348-6364.	1.7	7
47	A Statistical Analysis of Epoxy Polymer Reinforced with Micro Ceramic Particles. <i>Journal of Research Updates in Polymer Science</i> , 2016, 5, 108-113.	0.3	7
48	Experimental investigation of auxetic structures subjected to quasi static axial load. , 2017, , .		6
49	Epoxy mortar timber beam upgrading. <i>International Wood Products Journal</i> , 2017, 8, 146-154.	0.6	5
50	The impact behaviour of hybrid fibre-particle composites based on a full factorial design. <i>Materials Today Communications</i> , 2022, 31, 103459.	0.9	5
51	Monte Carlo study of the anisotropic three-dimensional Heisenberg model in a crystal field. <i>Brazilian Journal of Physics</i> , 2004, 34, 452-454.	0.7	4
52	Bicritical universality of the anisotropic Heisenberg model in a crystal field. <i>Physical Review E</i> , 2015, 91, 032146.	0.8	4
53	Particleboards from CCB-Treated <i>Pinus</i> sp. Wastes and Castor Oil Resin: Morphology Analyses and Physical Mechanical Properties. <i>Journal of Materials in Civil Engineering</i> , 2019, 31, .	1.3	4
54	Hybrid polymer composites made of sugarcane bagasse fibres and disposed rubber particles. <i>Polymers and Polymer Composites</i> , 2020, , 096739112094345.	1.0	4

#	ARTICLE	IF	CITATIONS
55	Tensile and flexural properties of epoxy laminates with natural papaya bast fibre cellular layers. Composites Part C: Open Access, 2020, 2, 100017.	1.5	4
56	Sustainable Sandwich Panels Made of Aluminium Skins and Bamboo Rings. Materials Research, 2021, 24, .	0.6	4
57	Eco-friendly panels made of autoclaved flax composites and upcycled bottle caps core: experimental and numerical analysis. Composites Part C: Open Access, 2021, 4, 100114.	1.5	4
58	Evaluation of the stiffening mechanism based on micro-sized particle inclusions in laminated composites. Materials Research, 2019, 22, .	0.6	4
59	Epoxy polymers reinforced with carbon microfibre wastes. Materials Today: Proceedings, 2019, 8, 847-852.	0.9	3
60	Eco-friendly sandwich panel based on bottle caps core and sustainable components: Static and dynamic characterisation. Composites Part C: Open Access, 2020, 3, 100069.	1.5	3
61	Environmental assessment of discarded plastic caps as a honeycomb core: An eco-mechanical perspective. Journal of Industrial Ecology, 2022, 26, 643-654.	2.8	3
62	A core rigidity classifier method and a novel approach to account for geometric effects on the elastic properties of sandwich structures. Composite Structures, 2022, 282, 115075.	3.1	3
63	Statistical and numerical approaches of particulate reinforced polymers and their effect on the interlocking effect of hybrid composite joints. Journal of Composite Materials, 2022, 56, 1267-1285.	1.2	3
64	Quasistatic dielectric properties of negative poisson's ratio hexachiral honeycombs. , 2007, , .		2
65	Impact Behaviour of Hybrid Carbon Fibre Composites Reinforced with Silica Micro- and Functionalized Nanoparticles. Nano Hybrids and Composites, 2018, 21, 1-9.	0.8	2
66	Sandwich Structures Made of Discarded Bottle Caps Core and Hybrid Glass Fibre Composite Skins. Applied Composite Materials, 0, , 1.	1.3	2
67	The Effects of Sodium Carbonate and Bicarbonate Treatments on Sisal Fibre Composites. Materials Research, 0, 25, .	0.6	2
68	Location of the Bicritical Point of the Anisotropic Heisenberg Model in a Crystal Field. Journal of Physics: Conference Series, 2014, 487, 012006.	0.3	1
69	Metamodelling of auxetic cellular solids with differential evolution optimisation. Physica Status Solidi (B): Basic Research, 2008, 245, 2433-2439.	0.7	0
70	Strength of concrete columns externally wrapped with composites under compressive static loading. Journal of Reinforced Plastics and Composites, 2011, 30, 1671-1688.	1.6	0