

F Xavier Espinach

List of Publications by Year in descending order

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88
papers

2,109
citations

186265

28
h-index

289244

40
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89
all docs

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docs citations

89
times ranked

1510
citing authors

#	ARTICLE	IF	CITATIONS
1	Bio-polyethylene reinforced with thermomechanical pulp fibers: Mechanical and micromechanical characterization and its application in 3D-printing by fused deposition modelling. <i>Composites Part B: Engineering</i> , 2018, 153, 70-77.	12.0	89
2	Micromechanics of hemp strands in polypropylene composites. <i>Composites Science and Technology</i> , 2012, 72, 1209-1213.	7.8	75
3	Polypropylene composites based on lignocellulosic fillers: How the filler morphology affects the composite properties. <i>Materials & Design</i> , 2015, 65, 454-461.	5.1	68
4	Estimation of the interfacial shears strength, orientation factor and mean equivalent intrinsic tensile strength in old newspaper fiber/polypropylene composites. <i>Composites Part B: Engineering</i> , 2013, 50, 232-238.	12.0	66
5	Study on the technical feasibility of replacing glass fibers by old newspaper recycled fibers as polypropylene reinforcement. <i>Journal of Cleaner Production</i> , 2014, 65, 489-496.	9.3	60
6	Composites from poly(lactic acid) and bleached chemical fibres: Thermal properties. <i>Composites Part B: Engineering</i> , 2018, 134, 169-176.	12.0	57
7	Approaching a new generation of fiberboards taking advantage of self lignin as green adhesive. <i>International Journal of Biological Macromolecules</i> , 2018, 108, 927-935.	7.5	56
8	Towards a good interphase between bleached kraft softwood fibers and poly(lactic) acid. <i>Composites Part B: Engineering</i> , 2016, 99, 514-520.	12.0	54
9	Mechanical and micromechanical tensile strength of eucalyptus bleached fibers reinforced polyoxymethylene composites. <i>Composites Part B: Engineering</i> , 2017, 116, 333-339.	12.0	53
10	Analysis of tensile and flexural modulus in hemp strands/polypropylene composites. <i>Composites Part B: Engineering</i> , 2013, 47, 339-343.	12.0	52
11	TEMPO-Oxidized Cellulose Nanofibers: A Potential Bio-Based Superabsorbent for Diaper Production. <i>Nanomaterials</i> , 2019, 9, 1271.	4.1	52
12	Research on the use of lignocellulosic fibers reinforced bio-polyamide 11 with composites for automotive parts: Car door handle case study. <i>Journal of Cleaner Production</i> , 2019, 226, 64-73.	9.3	52
13	Bio composite from bleached pine fibers reinforced polylactic acid as a replacement of glass fiber reinforced polypropylene, macro and micro-mechanics of the Young's modulus. <i>Composites Part B: Engineering</i> , 2017, 125, 203-210.	12.0	50
14	Tensile properties and micromechanical analysis of stone groundwood from softwood reinforced bio-based polyamide11 composites. <i>Composites Science and Technology</i> , 2016, 132, 123-130.	7.8	46
15	Semichemical fibres of <i>Leucaena collinsii</i> reinforced polypropylene: Macromechanical and micromechanical analysis. <i>Composites Part B: Engineering</i> , 2016, 91, 384-391.	12.0	44
16	Semichemical fibres of <i>Leucaena collinsii</i> reinforced polypropylene composites: Young's modulus analysis and fibre diameter effect on the stiffness. <i>Composites Part B: Engineering</i> , 2016, 92, 332-337.	12.0	44
17	Macro and micromechanics analysis of short fiber composites stiffness: The case of old newspaper fibers reinforced polypropylene composites. <i>Materials & Design</i> , 2014, 55, 319-324.	5.1	43
18	Flexural properties of fully biodegradable alpha-grass fibers reinforced starch-based thermoplastics. <i>Composites Part B: Engineering</i> , 2015, 81, 98-106.	12.0	41

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19	Macro and micro-mechanics behavior of stiffness in alkaline treated hemp core fibres polypropylene-based composites. <i>Composites Part B: Engineering</i> , 2018, 144, 118-125.	12.0	40
20	Interface and micromechanical characterization of tensile strength of bio-based composites from polypropylene and henequen strands. <i>Industrial Crops and Products</i> , 2019, 132, 319-326.	5.2	40
21	Behavior of the interphase of dyed cotton residue flocks reinforced polypropylene composites. <i>Composites Part B: Engineering</i> , 2017, 128, 200-207.	12.0	39
22	Modeling of the tensile moduli of mechanical, thermomechanical, and chemi-thermomechanical pulps from orange tree pruning. <i>Polymer Composites</i> , 2013, 34, 1840-1846.	4.6	37
23	Micromechanics of Mechanical, Thermomechanical, and Chemi-Thermomechanical Pulp from Orange Tree Pruning as Polypropylene Reinforcement: A Comparative Study. <i>BioResources</i> , 2013, 8, .	1.0	37
24	Acoustic properties of agroforestry waste orange pruning fibers reinforced polypropylene composites as an alternative to laminated gypsum boards. <i>Construction and Building Materials</i> , 2015, 77, 124-129.	7.2	37
25	The role of lignin on the mechanical performance of polylactic acid and jute composites. <i>International Journal of Biological Macromolecules</i> , 2018, 116, 299-304.	7.5	36
26	Stiffness of bio-based polyamide 11 reinforced with softwood stone ground-wood fibres as an alternative to polypropylene-glass fibre composites. <i>European Polymer Journal</i> , 2016, 84, 481-489.	5.4	35
27	Recycling dyed cotton textile byproduct fibers as polypropylene reinforcement. <i>Textile Research Journal</i> , 2019, 89, 2113-2125.	2.2	31
28	Effect of Sodium Hydroxide Treatments on the Tensile Strength and the Interphase Quality of Hemp Core Fiber-Reinforced Polypropylene Composites. <i>Polymers</i> , 2017, 9, 377.	4.5	29
29	Biobased Composites from Biobased-Polyethylene and Barley Thermomechanical Fibers: Micromechanics of Composites. <i>Materials</i> , 2019, 12, 4182.	2.9	27
30	Tensile Properties of Polypropylene Composites Reinforced with Mechanical, Thermomechanical, and Chemi-Thermomechanical Pulps from Orange Pruning. <i>BioResources</i> , 2015, 10, .	1.0	27
31	Evaluation of Thermal and Thermomechanical Behaviour of Bio-Based Polyamide 11 Based Composites Reinforced with Lignocellulosic Fibres. <i>Polymers</i> , 2017, 9, 522.	4.5	26
32	Effect of the Fiber Treatment on the Stiffness of Date Palm Fiber Reinforced PP Composites: Macro and Micromechanical Evaluation of the Young's Modulus. <i>Polymers</i> , 2020, 12, 1693.	4.5	25
33	Semichemical fibres of <i>Leucaena collinsii</i> reinforced polypropylene composites: Flexural characterisation, impact behaviour and water uptake properties. <i>Composites Part B: Engineering</i> , 2016, 97, 176-182.	12.0	24
34	Determination of Mean Intrinsic Flexural Strength and Coupling Factor of Natural Fiber Reinforcement in Polylactic Acid Biocomposites. <i>Polymers</i> , 2019, 11, 1736.	4.5	24
35	Study of the flexural modulus of lignocellulosic fibers reinforced bio-based polyamide11 green composites. <i>Composites Part B: Engineering</i> , 2018, 152, 126-132.	12.0	23
36	Influence of lignin content on the intrinsic modulus of natural fibers and on the stiffness of composite materials. <i>International Journal of Biological Macromolecules</i> , 2020, 155, 81-90.	7.5	23

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37	Magnetic bionanocomposites from cellulose nanofibers: Fast, simple and effective production method. <i>International Journal of Biological Macromolecules</i> , 2017, 99, 29-36.	7.5	21
38	Study on the Tensile Strength and Micromechanical Analysis of Alfa Fibers Reinforced High Density Polyethylene Composites. <i>Fibers and Polymers</i> , 2019, 20, 602-610.	2.1	20
39	Research on the Strengthening Advantages on Using Cellulose Nanofibers as Polyvinyl Alcohol Reinforcement. <i>Polymers</i> , 2020, 12, 974.	4.5	20
40	Impact Strength and Water Uptake Behaviors of Fully Bio-Based PA11-SGW Composites. <i>Polymers</i> , 2018, 10, 717.	4.5	19
41	Towards More Sustainable Material Formulations: A Comparative Assessment of PA11-SGW Flexural Performance versus Oil-Based Composites. <i>Polymers</i> , 2018, 10, 440.	4.5	18
42	Explorative Study on the Use of Curauñ; Reinforced Polypropylene Composites for the Automotive Industry. <i>Materials</i> , 2019, 12, 4185.	2.9	18
43	Enhancing the Mechanical Performance of Bleached Hemp Fibers Reinforced Polyamide 6 Composites: A Competitive Alternative to Commodity Composites. <i>Polymers</i> , 2020, 12, 1041.	4.5	18
44	Macro and micromechanical preliminary assessment of the tensile strength of particulate rapeseed sawdust reinforced polypropylene copolymer biocomposites for its use as building material. <i>Construction and Building Materials</i> , 2018, 168, 422-430.	7.2	17
45	Extending the value chain of corn agriculture by evaluating technical feasibility and the quality of the interphase of chemo-thermomechanical fiber from corn stover reinforced polypropylene biocomposites. <i>Composites Part B: Engineering</i> , 2018, 137, 16-22.	12.0	17
46	Impact Properties and Water Uptake Behavior of Old Newspaper Recycled Fibers-Reinforced Polypropylene Composites. <i>Materials</i> , 2020, 13, 1079.	2.9	17
47	BIO-BASED COMPOSITES FROM STONE GROUNDWOOD APPLIED TO NEW PRODUCT DEVELOPMENT. <i>BioResources</i> , 2012, 7, .	1.0	17
48	Leather Waste to Enhance Mechanical Performance of High-Density Polyethylene. <i>Polymers</i> , 2020, 12, 2016.	4.5	16
49	Bacterial Cellulose Network from Kombucha Fermentation Impregnated with Emulsion-Polymerized Poly(methyl methacrylate) to Form Nanocomposite. <i>Polymers</i> , 2021, 13, 664.	4.5	16
50	Nanocomposites Materials of PLA Reinforced with Nanoclays Using a Masterbatch Technology: A Study of the Mechanical Performance and Its Sustainability. <i>Polymers</i> , 2021, 13, 2133.	4.5	16
51	Nanoclay Effect into the Biodegradation and Processability of Poly(lactic acid) Nanocomposites for Food Packaging. <i>Polymers</i> , 2021, 13, 2741.	4.5	16
52	Sugarcane Bagasse Reinforced Composites: Studies on the Youngâ€™s Modulus and Macro and Micro-Mechanics. <i>BioResources</i> , 2017, 12, .	1.0	15
53	Feasibility of Barley Straw Fibers as Reinforcement in Fully Biobased Polyethylene Composites: Macro and Micro Mechanics of the Flexural Strength. <i>Molecules</i> , 2020, 25, 2242.	3.8	15
54	High Stiffness Performance Alpha-Grass Pulp Fiber Reinforced Thermoplastic Starch-Based Fully Biodegradable Composites. <i>BioResources</i> , 2013, 9, .	1.0	13

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55	Starch-Based Biopolymer Reinforced with High Yield Fibers from Sugarcane Bagasse as a Technical and Environmentally Friendly Alternative to High Density Polyethylene. <i>BioResources</i> , 2016, 11, .	1.0	13
56	High-Yield Lignocellulosic Fibers from Date Palm Biomass as Reinforcement in Polypropylene Composites: Effect of Fiber Treatment on Composite Properties. <i>Polymers</i> , 2020, 12, 1423.	4.5	13
57	Sustainable plastic composites by polylactic acid-starch blends and bleached kraft hardwood fibers. <i>Composites Part B: Engineering</i> , 2022, 238, 109901.	12.0	13
58	Bleached Kraft Eucalyptus Fibers as Reinforcement of Poly(Lactic Acid) for the Development of High-Performance Biocomposites. <i>Polymers</i> , 2018, 10, 699.	4.5	12
59	Flexural Properties and Mean Intrinsic Flexural Strength of Old Newspaper Reinforced Polypropylene Composites. <i>Polymers</i> , 2019, 11, 1244.	4.5	12
60	Impact Strength and Water Uptake Behavior of Bleached Kraft Softwood-Reinforced PLA Composites as Alternative to PP-Based Materials. <i>Polymers</i> , 2020, 12, 2144.	4.5	12
61	Study on the Macro and Micromechanics Tensile Strength Properties of Orange Tree Pruning Fiber as Sustainable Reinforcement on Bio-Polyethylene Compared to Oil-Derived Polymers and Its Composites. <i>Polymers</i> , 2020, 12, 2206.	4.5	12
62	Advances in Natural Fibers and Polymers. <i>Materials</i> , 2021, 14, 2607.	2.9	12
63	Maleic Anhydride Polylactic Acid Coupling Agent Prepared from Solvent Reaction: Synthesis, Characterization and Composite Performance. <i>Materials</i> , 2022, 15, 1161.	2.9	12
64	Modeling the Stiffness of Coupled and Uncoupled Recycled Cotton Fibers Reinforced Polypropylene Composites. <i>Polymers</i> , 2019, 11, 1725.	4.5	11
65	Tensile Strength Assessment of Injection-Molded High Yield Sugarcane Bagasse-Reinforced Polypropylene. <i>BioResources</i> , 2016, 11, .	1.0	10
66	Stiffening Potential of Lignocellulosic Fibers in Fully Biobased Composites: The Case of Abaca Strands, Spruce TMP Fibers, Recycled Fibers from ONP, and Barley TMP Fibers. <i>Polymers</i> , 2021, 13, 619.	4.5	10
67	High-Performance-Tensile-Strength Alpha-Grass Reinforced Starch-Based Fully Biodegradable Composites. <i>BioResources</i> , 2013, 8, .	1.0	9
68	Orange Wood Fiber Reinforced Polypropylene Composites: Thermal Properties. <i>BioResources</i> , 2015, 10, .	1.0	9
69	RESEARCH ON THE SUITABILITY OF ORGANOSOLV SEMI-CHEMICAL TRITICALE FIBERS AS REINFORCEMENT FOR RECYCLED HDPE COMPOSITES. <i>BioResources</i> , 2012, 7, .	1.0	8
70	Polypropylene reinforced with semi-chemical fibres of <i>Leucaena collinsii</i> : Thermal properties. <i>Composites Part B: Engineering</i> , 2016, 94, 75-81.	12.0	8
71	Effective Young's Modulus Estimation of Natural Fibers through Micromechanical Models: The Case of Henequen Fibers Reinforced-PP Composites. <i>Polymers</i> , 2021, 13, 3947.	4.5	8
72	Design and Development of Fully Biodegradable Products from Starch Biopolymer and Corn Stalk Fibres. <i>Journal of Biobased Materials and Bioenergy</i> , 2012, 6, 410-417.	0.3	7

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73	Approaching a Zero-Waste Strategy in Rapeseed (<i>Brassica napus</i>) Exploitation: Sustainably Approaching Bio-Based Polyethylene Composites. <i>Sustainability</i> , 2022, 14, 7942.	3.2	7
74	Characterization of CaCO ₃ Filled Poly(lactic) Acid and Bio Polyethylene Materials for Building Applications. <i>Polymers</i> , 2021, 13, 3323.	4.5	6
75	Bleached kraft softwood fibers reinforced polylactic acid composites, tensile and flexural strengths. , 2017, , 73-90.		5
76	Biocomposites from Starch-based Biopolymer and Rape Fibers. Part II: Stiffening, Flexural and Impact Strength, and Product Development. <i>Current Organic Chemistry</i> , 2013, 17, 1641-1646.	1.6	5
77	Effect of NaOH Treatment on the Flexural Modulus of Hemp Core Reinforced Composites and on the Intrinsic Flexural Moduli of the Fibers. <i>Polymers</i> , 2020, 12, 1428.	4.5	4
78	Topography of the Interfacial Shear Strength and the Mean Intrinsic Tensile Strength of Hemp Fibers as a Reinforcement of Polypropylene. <i>Materials</i> , 2020, 13, 1012.	2.9	4
79	Exploring the Potential of Cotton Industry Byproducts in the Plastic Composite Sector: Macro and Micromechanics Study of the Flexural Modulus. <i>Materials</i> , 2021, 14, 4787.	2.9	4
80	Biocomposites from Starch-based Biopolymer and Rape Fibers. Part I: Interfacial Analysis and Intrinsic Properties of Rape Fibers. <i>Current Organic Chemistry</i> , 2013, 17, 1633-1640.	1.6	4
81	Elements that define the social responsibility of a product. <i>DYNA (Colombia)</i> , 2014, 81, 175.	0.4	2
82	Biobased polyamide reinforced with natural fiber composites. , 2021, , 141-165.		2
83	Environmental Assessment of Underdrain Designs for Granular Media Filters in Drip Irrigation Systems. <i>Agriculture (Switzerland)</i> , 2022, 12, 810.	3.1	2
84	Study of the Flexural Strength of Recycled Dyed Cotton Fiber Reinforced Polypropylene Composites and the Effect of the Use of Maleic Anhydride as Coupling Agent. <i>Journal of Natural Fibers</i> , 0, , 1-13.	3.1	1
85	GAMIFICATION AS A METHODOLOGY TO INCENTIVE STUDENTS. , 2018, , .		1
86	REPLANNING AN EXPERIMENTAL PROJECT FROM THE MIDDLE: THE NECESSITY OF RESULTS AND THE LACK OF TIME. , 2021, , .		0
87	MEJORA DE LA ENSEÑANZA Y EL APRENDIZAJE A TRAVÉS DE LA EVALUACIÓN DE COMPETENCIAS POR MEDIO DE LA HERRAMIENTA CYCLOID. <i>Formacion Universitaria</i> , 2014, 7, 17-26.	0.7	0
88	CREATIVE TECHNIQUES APPLIED TO ENGINEERING SUBJECTS. , 2020, , .		0