Marc Delgado-Aguilar

List of Publications by Year
in descending order

136 papers	3,409 citations	134610 34 h-index	206121 51 g-index
137 all docs	137 docs citations	137 times ranked	2964 citing authors

#	Article	IF	Citations
1	Lignin-containing cellulose fibrils as reinforcement of plasticized PLA biocomposites produced by melt processing using PEG as a carrier. Industrial Crops and Products, 2022, 175, 114287.	2.5	24
2	Plasma-treated lignocellulosic fibers for polymer reinforcement. A review. Cellulose, 2022, 29, 659-683.	2.4	6
3	Micromechanics of Tensile Strength of Thermo-mechanical Pulp Reinforced Poly(lactic) Acid Biodegradable Composites. Journal of Natural Fibers, 2022, 19, 9931-9944.	1.7	6
4	Critical comparison of the properties of cellulose nanofibers produced from softwood and hardwood through enzymatic, chemical and mechanical processes. International Journal of Biological Macromolecules, 2022, 205, 220-230.	3.6	31
5	Techno-economic and environmental evaluation of a market pulp reinforced with micro-/nanofibers as a strengthening agent in packaging paper. Journal of Cleaner Production, 2022, 347, 131265.	4.6	6
6	Electrospray Deposition of Cellulose Nanofibers on Paper: Overcoming the Limitations of Conventional Coating. Nanomaterials, 2022, 12, 79.	1.9	13
7	Micro- and Nanofibrillated Cellulose from Annual Plant-Sourced Fibers: Comparison between Enzymatic Hydrolysis and Mechanical Refining. Nanomaterials, 2022, 12, 1612.	1.9	11
8	Sustainable plastic composites by polylactic acid-starch blends and bleached kraft hardwood fibers. Composites Part B: Engineering, 2022, 238, 109901.	5.9	13
9	Artificial neural network for aspect ratio prediction of lignocellulosic micro/nanofibers. Cellulose, 2022, 29, 5609-5622.	2.4	6
10	Approaching a Zero-Waste Strategy in Rapeseed (Brassica napus) Exploitation: Sustainably Approaching Bio-Based Polyethylene Composites. Sustainability, 2022, 14, 7942.	1.6	7
11	COLLABORATION BETWEEN UNIVERSITY AND DUAL TRAINING CENTER: THE CASE OF PAPER MANUFACTURING AND RECYCLING PROCESSES. EDULEARN Proceedings, 2022, , .	0.0	0
12	Virtual special issue on â€œNanocellulose characterization, production and useâ€. Cellulose, 2021, 28, 1881-1882.	2.4	0
13	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. Polymers, 2021, 13, 619.	2.0	10
14	INTRODUCING SUSTAINABILITY TO ENGINEERING STUDIES. EXPERIENCES BASED ON GREEN PACKAGING. , 2021, , .		0
15	Nanocellulose characterization challenges. BioResources, 2021, 16, 4382-4410.	0.5	34
16	Comparative assessment of cellulose nanofibers and calcium alginate beads for continuous Cu(II) adsorption in packed columns: the influence of water and surface hydrophobicity. Cellulose, 2021, 28, 4327-4344.	2.4	12
17	Monitoring fibrillation in the mechanical production of lignocellulosic micro/nanofibers from bleached spruce thermomechanical pulp. International Journal of Biological Macromolecules, 2021, 178, 354-362.	3.6	16
18	Experimental Behavior of Thin-Tile Masonry under Uniaxial Compression. Multi-Leaf Case Study. Materials, 2021, 14, 2785.	1.3	2

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19	Valorization of Date Palm Waste for Plastic Reinforcement: Macro and Micromechanics of Flexural Strength. Polymers, 2021, 13, 1751.	2.0	10
20	The Integral Utilization of Date Palm Waste to Produce Plastic Composites. Polymers, 2021, 13, 2335.	2.0	7
21	Manufacturing PLA/PCL Blends by Ultrasonic Molding Technology. Polymers, 2021, 13, 2412.	2.0	8
22	Cellulose nanofibrils reinforced PBAT/TPS blends: Mechanical and rheological properties. International Journal of Biological Macromolecules, 2021, 183, 267-275.	3.6	34
23	SUSTAINABILITY EDUCATION VIA ENGAGING EXPERIENCES BASED ON THE DEVELOPMENT OF CELLULOSE NANOFIBERS. , 2021, , .		0
24	Enhanced Morphological Characterization of Cellulose Nano/Microfibers through Image Skeleton Analysis. Nanomaterials, 2021, 11, 2077.	1.9	18
25	Exploring the Potential of Cotton Industry Byproducts in the Plastic Composite Sector: Macro and Micromechanics Study of the Flexural Modulus. Materials, 2021, 14, 4787.	1.3	4
26	Influence of pretreatment and mechanical nanofibrillation energy on properties of nanofibers from Aspen cellulose. Cellulose, 2021, 28, 9187-9206.	2.4	22
27	Correlation between rheological measurements and morphological features of lignocellulosic micro/nanofibers from different softwood sources. International Journal of Biological Macromolecules, 2021, 187, 789-799.	3.6	17
28	Chemical-free production of lignocellulosic micro- and nanofibers from high-yield pulps: Synergies, performance, and feasibility. Journal of Cleaner Production, 2021, 313, 127914.	4.6	22
29	Characterization of CaCO3 Filled Poly(lactic) Acid and Bio Polyethylene Materials for Building Applications. Polymers, 2021, 13, 3323.	2.0	6
30	Micro/nanostructured lignonanocellulose obtained from steam-exploded sugarcane bagasse. Cellulose, 2021, 28, 10163-10182.	2.4	8
31	Valorization Strategy for Leather Waste as Filler for High-Density Polyethylene Composites: Analysis of the Thermal Stability, Insulation Properties and Chromium Leaching. Polymers, 2021, 13, 3313.	2.0	4
32	Tuning morphology and structure of non-woody nanocellulose: Ranging between nanofibers and nanocrystals. Industrial Crops and Products, 2021, 171, 113877.	2.5	28
33	Effect of enzymatic treatment (endo-glucanases) of fiber and mechanical lignocellulose nanofibers addition on physical and mechanical properties of binderless high-density fiberboards made from wheat straw. Journal of Building Engineering, 2021, 44, 103392.	1.6	4
34	Biobased polyamide reinforced with natural fiber composites. , 2021, , 141-165.		2
35	Potentiometric back titration as a robust and simple method for specific surface area estimation of lignocellulosic fibers. Cellulose, 2021, 28, 10815-10825.	2.4	10
36	Effective Youngâ€™s Modulus Estimation of Natural Fibers through Micromechanical Models: The Case of Henequen Fibers Reinforced-PP Composites. Polymers, 2021, 13, 3947.	2.0	8

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37	ENVIRONMENTAL EDUCATION IN THE CHEMICAL ENGINEERING DEGREE: EXPLORING THE POTENTIAL OF BIOPLASTICS AND BIOCOMPOSITES. , 2021, , .		0
38	Development of high-performance binderless fiberboards from wheat straw residue. Construction and Building Materials, 2020, 232, 117247.	3.2	24
39	Lignin/poly(butylene succinate) composites with antioxidant and antibacterial properties for potential biomedical applications. International Journal of Biological Macromolecules, 2020, 145, 92-99.	3.6	116
40	Blends of PBAT with plasticized starch for packaging applications: Mechanical properties, rheological behaviour and biodegradability. Industrial Crops and Products, 2020, 144, 112061.	2.5	135
41	Evaluation of the fibrillation method on lignocellulosic nanofibers production from eucalyptus sawdust: A comparative study between high-pressure homogenization and grinding. International Journal of Biological Macromolecules, 2020, 145, 1199-1207.	3.6	32
42	Impact Strength and Water Uptake Behavior of Bleached Kraft Softwood-Reinforced PLA Composites as Alternative to PP-Based Materials. Polymers, 2020, 12, 2144.	2.0	12
43	Leather Waste to Enhance Mechanical Performance of High-Density Polyethylene. Polymers, 2020, 12, 2016.	2.0	16
44	Special issue on â€œNanocellulose characterization, production and useâ€• Cellulose, 2020, 27, 10567-10569.	2.4	1
45	Effect of the Fiber Treatment on the Stiffness of Date Palm Fiber Reinforced PP Composites: Macro and Micromechanical Evaluation of the Youngâ€™s Modulus. Polymers, 2020, 12, 1693.	2.0	25
46	Effect of nanofiber addition on the physicalâ€“mechanical properties of chemimechanical pulp handsheets for packaging. Cellulose, 2020, 27, 10811-10823.	2.4	16
47	Enhancing the Mechanical Performance of Bleached Hemp Fibers Reinforced Polyamide 6 Composites: A Competitive Alternative to Commodity Composites. Polymers, 2020, 12, 1041.	2.0	18
48	Polylactic Acid/Polycaprolactone Blends: On the Path to Circular Economy, Substituting Single-Use Commodity Plastic Products. Materials, 2020, 13, 2655.	1.3	29
49	Influence of lignin content on the intrinsic modulus of natural fibers and on the stiffness of composite materials. International Journal of Biological Macromolecules, 2020, 155, 81-90.	3.6	23
50	Oxidative treatments for cellulose nanofibers production: a comparative study between TEMPO-mediated and ammonium persulfate oxidation. Cellulose, 2020, 27, 10671-10688.	2.4	43
51	Impact Properties and Water Uptake Behavior of Old Newspaper Recycled Fibers-Reinforced Polypropylene Composites. Materials, 2020, 13, 1079.	1.3	17
52	High-Yield Lignocellulosic Fibers from Date Palm Biomass as Reinforcement in Polypropylene Composites: Effect of Fiber Treatment on Composite Properties. Polymers, 2020, 12, 1423.	2.0	13
53	Valorization of Hemp Core Residues: Impact of NaOH Treatment on the Flexural Strength of PP Composites and Intrinsic Flexural Strength of Hemp Core Fibers. Biomolecules, 2020, 10, 823.	1.8	10
54	Topography of the Interfacial Shear Strength and the Mean Intrinsic Tensile Strength of Hemp Fibers as a Reinforcement of Polypropylene. Materials, 2020, 13, 1012.	1.3	4

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55	Disruptive enzyme-based strategies to isolate nanocelluloses: a review. Cellulose, 2020, 27, 5457-5475.	2.4	21
56	Research on the Strengthening Advantages on Using Cellulose Nanofibers as Polyvinyl Alcohol Reinforcement. Polymers, 2020, 12, 974.	2.0	20
57	Lignocellulosic nanofibers for the reinforcement of brown line paper in industrial water systems. Cellulose, 2020, 27, 10799-10809.	2.4	5
58	Effect of cold air plasmas on the morphology and thermal stability of bleached hemp fibers. Revista Mexicana De Ingeniera Quimica, 2020, 19, 457-467.	0.2	2
59	Flexural Properties and Mean Intrinsic Flexural Strength of Old Newspaper Reinforced Polypropylene Composites. Polymers, 2019, 11, 1244.	2.0	12
60	Determination of Mean Intrinsic Flexural Strength and Coupling Factor of Natural Fiber Reinforcement in Polylactic Acid Biocomposites. Polymers, 2019, 11, 1736.	2.0	24
61	TEMPO-Oxidized Cellulose Nanofibers: A Potential Bio-Based Superabsorbent for Diaper Production. Nanomaterials, 2019, 9, 1271.	1.9	52
62	On the Path to a New Generation of Cement-Based Composites through the Use of Lignocellulosic Micro/Nanofibers. Materials, 2019, 12, 1584.	1.3	6
63	Towards the development of highly transparent, flexible and water-resistant bio-based nanopapers: tailoring physico-mechanical properties. Cellulose, 2019, 26, 6917-6932.	2.4	12
64	Interface and micromechanical characterization of tensile strength of bio-based composites from polypropylene and henequen strands. Industrial Crops and Products, 2019, 132, 319-326.	2.5	40
65	Biobased Composites from Biobased-Polyethylene and Barley Thermomechanical Fibers: Micromechanics of Composites. Materials, 2019, 12, 4182.	1.3	27
66	Explorative Study on the Use of CurauÃ¡ Reinforced Polypropylene Composites for the Automotive Industry. Materials, 2019, 12, 4185.	1.3	18
67	TEMPO-oxidized cellulose nanofibers as potential Cu(II) adsorbent for wastewater treatment. Cellulose, 2019, 26, 903-916.	2.4	45
68	Production of fiberboard from rice straw thermomechanical extrudates by thermopressing: influence of fiber morphology, water and lignin content. European Journal of Wood and Wood Products, 2019, 77, 15-32.	1.3	15
69	Cellulose nanofibers from residues to improve linting and mechanical properties of recycled paper. Cellulose, 2018, 25, 1339-1351.	2.4	25
70	The role of lignin on the mechanical performance of polylactic acid and jute composites. International Journal of Biological Macromolecules, 2018, 116, 299-304.	3.6	36
71	Mechanical and chemical dispersion of nanocelluloses to improve their reinforcing effect on recycled paper. Cellulose, 2018, 25, 269-280.	2.4	52
72	Composites from poly(lactic acid) and bleached chemical fibres: Thermal properties. Composites Part B: Engineering, 2018, 134, 169-176.	5.9	57

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73	Recycled fibers for fluting production: The role of lignocellulosic micro/nanofibers of banana leaves. Journal of Cleaner Production, 2018, 172, 233-238.	4.6	17
74	Combined effect of sodium carboxymethyl cellulose, cellulose nanofibers and drainage aids in recycled paper production process. Carbohydrate Polymers, 2018, 183, 201-206.	5.1	18
75	Key role of anionic trash catching system on the efficiency of lignocellulose nanofibers in industrial recycled slurries. Cellulose, 2018, 25, 357-366.	2.4	8
76	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. Composites Part B: Engineering, 2018, 137, 16-22.	5.9	17
77	Towards a new generation of functional fiber-based packaging: cellulose nanofibers for improved barrier, mechanical and surface properties. Cellulose, 2018, 25, 683-695.	2.4	21
78	Approaching a new generation of fiberboards taking advantage of self lignin as green adhesive. International Journal of Biological Macromolecules, 2018, 108, 927-935.	3.6	56
79	Polyelectrolyte complexes for assisting the application of lignocellulosic micro/nanofibers in papermaking. Cellulose, 2018, 25, 6083-6092.	2.4	12
80	Bio-polyethylene reinforced with thermomechanical pulp fibers: Mechanical and micromechanical characterization and its application in 3D-printing by fused deposition modelling. Composites Part B: Engineering, 2018, 153, 70-77.	5.9	89
81	Bleached Kraft Eucalyptus Fibers as Reinforcement of Poly(Lactic Acid) for the Development of High-Performance Biocomposites. Polymers, 2018, 10, 699.	2.0	12
82	INTRODUCTION OF CHANGES FROM A COMPETENCIES ANALYSIS IN AN INDUSTRIAL ENGINEERING GROUP. INTED Proceedings, 2018, , .	0.0	0
83	NEW METHODOLOGY TO PROMOTE COMMUNICATION AND ENGLISH SKILLS IN CHEMICAL ENGINEERING. , 2018, , .		0
84	CASE STUDY BASED ON CHEMICAL PROBLEMS TO PROMOTE ETHICS AND SUSTAINABILITY. , 2018, , .		1
85	INTRODUCTION TO ECOLOGICAL CHEMISTRY USING ENGLISH AS A REFERENCE LANGUAGE. , 2018, , .		0
86	TRANSFORMING AN INDUSTRIAL PROCESS IN A GREENER AND SUSTAINABLE ONE. INTED Proceedings, 2018, , .	0.0	0
87	THE USE OF AN INDUSTRIAL REAL CASE TO PROMOTE THE ETHICAL AND SUSTAINABILITY THINKING IN GREEN CHEMISTRY. INTED Proceedings, 2018, , .	0.0	0
88	Lignocellulosic nanofibers from triticale straw: The influence of hemicelluloses and lignin in their production and properties. Carbohydrate Polymers, 2017, 163, 20-27.	5.1	64
89	The suitability of banana leaf residue as raw material for the production of high lignin content micro/nano fibers: From residue to value-added products. Industrial Crops and Products, 2017, 99, 27-33.	2.5	48
90	Magnetic bionanocomposites from cellulose nanofibers: Fast, simple and effective production method. International Journal of Biological Macromolecules, 2017, 99, 29-36.	3.6	21

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91	Comparison between two different pretreatment technologies of rice straw fibers prior to fiberboard manufacturing: Twin-screw extrusion and digestion plus defibration. Industrial Crops and Products, 2017, 107, 184-197.	2.5	23
92	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. Composites Part B: Engineering, 2017, 125, 203-210.	5.9	50
93	Cardboard boxes as raw material for high-performance papers through the implementation of alternative technologies: More than closing the loop. Journal of Industrial and Engineering Chemistry, 2017, 54, 52-58.	2.9	10
94	Bleached kraft softwood fibers reinforced polylactic acid composites, tensile and flexural strengths. , 2017, , 73-90.		5
95	Lignocellulosic micro/nanofibers from wood sawdust applied to recycled fibers for the production of paper bags. International Journal of Biological Macromolecules, 2017, 105, 664-670.	3.6	19
96	Immobilization of antimicrobial peptides onto cellulose nanopaper. International Journal of Biological Macromolecules, 2017, 105, 741-748.	3.6	13
97	Enzymatically hydrolyzed and TEMPO-oxidized cellulose nanofibers for the production of nanopapers: morphological, optical, thermal and mechanical properties. Cellulose, 2017, 24, 3943-3954.	2.4	63
98	Sugarcane Bagasse Reinforced Composites: Studies on the Youngâ€™s Modulus and Macro and Micro-Mechanics. BioResources, 2017, 12, .	0.5	15
99	Reducing the Amount of Catalyst in TEMPO-Oxidized Cellulose Nanofibers: Effect on Properties and Cost. Polymers, 2017, 9, 557.	2.0	76
100	Nanofibrillated cellulose as an additive in papermaking process. , 2017, , 153-173.		6
101	Fiberboards Made from Corn Stalk Thermomechanical Pulp and Kraft Lignin as a Green Adhesive. BioResources, 2017, 12, .	0.5	37
102	High-Yield Pulp from Brassica napus to Manufacture Packaging Paper. BioResources, 2017, 12, .	0.5	9
103	HELPING TO LEARN A PROCESS USING A VISIT TO INDUSTRIAL COMPANIES. INTED Proceedings, 2017, , .	0.0	0
104	APPS AS GAMES TO HELP STUDENTS IN THEIR LEARNING PROCESS. , 2017, , .		0
105	NEW TOOLS FOR LEARNING CONTROL PROCESSES. , 2017, , .		0
106	NEW APPLICATIONS TO HELP STUDENTS UNDERSTAND SOME CHEMISTRY PROCESSES. INTED Proceedings, 2017, , .	0.0	0
107	Starch-Based Biopolymer Reinforced with High Yield Fibers from Sugarcane Bagasse as a Technical and Environmentally Friendly Alternative to High Density Polyethylene. BioResources, 2016, 11, .	0.5	13
108	Tensile Strength Assessment of Injection-Molded High Yield Sugarcane Bagasse-Reinforced Polypropylene. BioResources, 2016, 11, .	0.5	10

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109	Valorization of Corn Stalk by the Production of Cellulose Nanofibers to Improve Recycled Paper Properties. BioResources, 2016, 11, .	0.5	31
110	Strong and electrically conductive nanopaper from cellulose nanofibers and polypyrrole. Carbohydrate Polymers, 2016, 152, 361-369.	5.1	65
111	Towards a good interphase between bleached kraft softwood fibers and poly(lactic) acid. Composites Part B: Engineering, 2016, 99, 514-520.	5.9	54
112	Cu-coated cellulose nanopaper for green and low-cost electronics. Cellulose, 2016, 23, 1997-2010.	2.4	41
113	Semichemical fibres of Leucaena collinsii reinforced polypropylene composites: Flexural characterisation, impact behaviour and water uptake properties. Composites Part B: Engineering, 2016, 97, 176-182.	5.9	24
114	Remarkable increase of paper strength by combining enzymatic cellulose nanofibers in bulk and TEMPO-oxidized nanofibers as coating. Cellulose, 2016, 23, 3939-3950.	2.4	42
115	Stiffness of bio-based polyamide 11 reinforced with softwood stone ground-wood fibres as an alternative to polypropylene-glass fibre composites. European Polymer Journal, 2016, 84, 481-489.	2.6	35
116	Nanofibrillated cellulose as an additive in papermaking process: A review. Carbohydrate Polymers, 2016, 154, 151-166.	5.1	205
117	Effective and simple methodology to produce nanocellulose-based aerogels for selective oil removal. Cellulose, 2016, 23, 3077-3088.	2.4	36
118	The feasibility of incorporating cellulose micro/nanofibers in papermaking processes: the relevance of enzymatic hydrolysis. Cellulose, 2016, 23, 1433-1445.	2.4	64
119	Polypropylene reinforced with semi-chemical fibres of Leucaena collinsii : Thermal properties. Composites Part B: Engineering, 2016, 94, 75-81.	5.9	8
120	The key role of lignin in the production of low-cost lignocellulosic nanofibres for papermaking applications. Industrial Crops and Products, 2016, 86, 295-300.	2.5	101
121	Semichemical fibres of Leucaena collinsii reinforced polypropylene: Macromechanical and micromechanical analysis. Composites Part B: Engineering, 2016, 91, 384-391.	5.9	44
122	Semichemical fibres of Leucaena collinsii reinforced polypropylene composites: Young's modulus analysis and fibre diameter effect on the stiffness. Composites Part B: Engineering, 2016, 92, 332-337.	5.9	44
123	Suitability of wheat straw semichemical pulp for the fabrication of lignocellulosic nanofibres and their application to papermaking slurries. Cellulose, 2016, 23, 837-852.	2.4	103
124	ENCOURAGING STUDENTS TO DEVELOP THEIR OWN PROJECT THROUGH THE INCREASE OF THE NUMBER OF PRACTICAL SESSIONS. , 2016, , .		0
125	CASE STUDY: COMPETENCES IN THE LAST COURSE IN TECHNICAL CHEMICAL ENGINEERING AND SOME COMPANIES DEMAND. EDULEARN Proceedings, 2016, , .	0.0	0
126	CREATIVITY AS EDUCATIONAL METHODOLOGY IN PROJECT DESIGN DISCIPLINES. , 2016, , .		0

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127	EXPERIENCES OF WORKPLACE STAY WITHIN A RESEARCH GROUP. , 2016, , .		0
128	Approaching a Low-Cost Production of Cellulose Nanofibers for Papermaking Applications. BioResources, 2015, 10, .	0.5	66
129	AplicaciÃ³n de celulosa nanofibrilada, en masa y superficie, a la pulpa mecÃ¡nica de muela de piedra: una sÃ³lida alternativa al tratamiento clÃ¡sico de refinado. Maderas: Ciencia Y Tecnologia, 2015, , 0-0.	0.7	3
130	Enzymatic Refining and Cellulose Nanofiber Addition in Papermaking Processes from Recycled and Deinked Slurries. BioResources, 2015, 10, .	0.5	16
131	All-lignocellulosic fiberboard from corn biomass and cellulose nanofibers. Industrial Crops and Products, 2015, 76, 166-173.	2.5	64
132	Flexural properties of fully biodegradable alpha-grass fibers reinforced starch-based thermoplastics. Composites Part B: Engineering, 2015, 81, 98-106.	5.9	41
133	Are Cellulose Nanofibers a Solution for a More Circular Economy of Paper Products?. Environmental Science & Technology, 2015, 49, 12206-12213.	4.6	61
134	Improvement of deinked old newspaper/old magazine pulp suspensions by means of nanofibrillated cellulose addition. Cellulose, 2015, 22, 789-802.	2.4	88
135	Tensile Properties of Polypropylene Composites Reinforced with Mechanical, Thermomechanical, and Chemi-Thermomechanical Pulps from Orange Pruning. BioResources, 2015, 10, .	0.5	27
136	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. Journal of Natural Fibers, 0, , 1-13.	1.7	1