Ajf Carvalho

List of Publications by Year
in descending order

104 papers	4,278 citations	136740 32 h-index	114278 63 g-index
110 all docs	110 docs citations	110 times ranked	4666 citing authors

#	Article	IF	Citations
1	Progress of Polymers from Renewable Resources: Furans, Vegetable Oils, and Polysaccharides. Chemical Reviews, 2016, 116, 1637-1669.	23.0	610
2	Thermoplastic starchâ€"cellulosic fibers composites: preliminary results. Carbohydrate Polymers, 2001, 45, 183-188.	5.1	410
3	A first insight on composites of thermoplastic starch and kaolin. Carbohydrate Polymers, 2001, 45, 189-194.	5.1	238
4	The effect of plasticizers on thermoplastic starch compositions obtained by melt processing. Carbohydrate Polymers, 2006, 63, 417-424.	5.1	238
5	Natural fiber-reinforced thermoplastic starch composites obtained by melt processing. Composites Science and Technology, 2012, 72, 858-863.	3.8	155
6	Thermoplastic starch/natural rubber blends. Carbohydrate Polymers, 2003, 53, 95-99.	5.1	150
7	Recycling Tires? Reversible Crosslinking of Poly(butadiene). Advanced Materials, 2015, 27, 2242-2245.	11.1	135
8	The effect of glycerol/sugar/water and sugar/water mixtures on the plasticization of thermoplastic cassava starch. Carbohydrate Polymers, 2007, 69, 619-624.	5.1	123
9	Mechanical and morphological characterization of starch/zein blends plasticized with glycerol. Journal of Applied Polymer Science, 2006, 101, 4133-4139.	1.3	86
10	Preparation and characterization of thermoplastic starch/zein blends. Materials Research, 2007, 10, 227-231.	0.6	85
11	Compatible Ternary Blends of Chitosan/poly(vinyl alcohol)/poly(lactic acid) Produced by Oil-in-Water Emulsion Processing. Biomacromolecules, 2011, 12, 907-914.	2.6	74
12	Blocked isocyanates as coupling agents for cellulose-based composites. Carbohydrate Polymers, 2007, 68, 537-543.	5.1	73
13	Thermoplastic starch modification during melt processing: Hydrolysis catalyzed by carboxylic acids. Carbohydrate Polymers, 2005, 62, 387-390.	5.1	70
14	Physicochemical Properties and Sensing Ability of Metallophthalocyanines/Chitosan Nanocomposites. Journal of Physical Chemistry B, 2006, 110, 22690-22694.	1.2	70
15	Simple Green Approach to Reinforce Natural Rubber with Bacterial Cellulose Nanofibers. Biomacromolecules, 2013, 14, 2667-2674.	2.6	67
16	Size exclusion chromatography characterization of thermoplastic starch composites 1. Influence of plasticizer and fibre content. Polymer Degradation and Stability, 2003, 79, 133-138.	2.7	66
17	Thermoplastic starch modified during melt processing with organic acids: The effect of molar mass on thermal and mechanical properties. Industrial Crops and Products, 2011, 33, 152-157.	2.5	66
18	Adsorption of chitosan on spin-coated cellulose films. Carbohydrate Polymers, 2010, 80, 65-70.	5.1	64

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19	Wood pulp reinforced thermoplastic starch composites. International Journal of Polymeric Materials and Polymeric Biomaterials, 2002, 51, 647-660.	1.8	62
20	Surface chemical modification of thermoplastic starch: reactions with isocyanates, epoxy functions and stearoyl chloride. Industrial Crops and Products, 2005, 21, 331-336.	2.5	62
21	Continuous microfiber drawing by interfacial charge complexation between anionic cellulose nanofibers and cationic chitosan. Journal of Materials Chemistry A, 2017, 5, 13098-13103.	5.2	61
22	Composite materials of thermoplastic starch and fibers from the ethanolâ€"water fractionation of bagasse. Industrial Crops and Products, 2011, 33, 739-746.	2.5	59
23	Starch: Major Sources, Properties and Applications as Thermoplastic Materials. , 2008, , 321-342.		53
24	Blocked diisocyanates as reactive coupling agents: Application to pine fiberâ€"polypropylene composites. Carbohydrate Polymers, 2008, 74, 106-113.	5.1	52
25	Layer-by-Layer Hybrid Films Incorporating WO3, TiO2, and Chitosan. Chemistry of Materials, 2005, 17, 6739-6745.	3.2	49
26	Title is missing!. Journal of Materials Science, 2003, 38, 3515-3520.	1.7	42
27	Newspaper fiber-reinforced thermoplastic starch biocomposites obtained by melt processing: Evaluation of the mechanical, thermal and water sorption properties. Industrial Crops and Products, 2013, 44, 300-305.	2.5	42
28	Soda-Treated Sisal/Polypropylene Composites. Journal of Polymers and the Environment, 2008, 16, 35-39.	2.4	41
29	Macromolecular materials based on the application of the Dielsâ€"Alder reaction to natural polymers and plant oils. European Journal of Lipid Science and Technology, 2018, 120, 1700091.	1.0	39
30	Preparation and Characterisation of Thermoplastic Starches from Cassava Starch, Cassava Root and Cassava Bagasse. Macromolecular Symposia, 2005, 229, 266-275.	0.4	38
31	Thermal properties of nylon6/ABS polymer blends: Compatibilizer effect. Journal of Materials Science, 2004, 39, 1173-1178.	1.7	37
32	TEMPO-oxidized cellulose nanofibers as interfacial strengthener in continuous-fiber reinforced polymer composites. Materials and Design, 2017, 133, 340-348.	3.3	35
33	Cellulose nanofibers production using a set of recombinant enzymes. Carbohydrate Polymers, 2021, 256, 117510.	5.1	35
34	Compatible blends of thermoplastic starch and hydrolyzed ethylene-vinyl acetate copolymers. Carbohydrate Polymers, 2012, 90, 34-40.	5.1	33
35	Acrylonitrile-butadiene-styrene toughened nylon 6: The influences of compatibilizer on morphology and impact properties. Journal of Applied Polymer Science, 2003, 87, 842-847.	1.3	32
36	Estudo comparativo de amidos termoplÃ¡sticos derivados do milho com diferentes teores de amilose. Polimeros, 2005, 15, 268-273.	0.2	32

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37	Two alternative approaches to the Dielsâ€“Alder polymerization of tung oil. RSC Advances, 2014, 4, 26829.	1.7	32
38	Thermoplastic blends of chitosan: A method for the preparation of high thermally stable blends with polyesters. Carbohydrate Polymers, 2018, 191, 44-52.	5.1	32
39	A straightforward double coupling of furan moieties onto epoxidized triglycerides: synthesis of monomers based on two renewable resources. Green Chemistry, 2013, 15, 1514.	4.6	29
40	Effect of compatibilizer in acrylonitrile-butadiene-styrene toughened nylon 6 blends: Ductile-brittle transition temperature. Journal of Applied Polymer Science, 2003, 90, 2643-2647.	1.3	26
41	A new approach to blending starch with natural rubber. Polymer International, 2015, 64, 605-610.	1.6	25
42	Furan-modified natural rubber: A substrate for its reversible crosslinking and for clicking it onto nanocellulose. International Journal of Biological Macromolecules, 2017, 95, 762-768.	3.6	25
43	Thermally reversible nanocellulose hydrogels synthesized via the furan/maleimide Diels-Alder click reaction in water. International Journal of Biological Macromolecules, 2019, 141, 493-498.	3.6	25
44	Polymer light emitting devices with Langmuirâ€“Blodgett (LB) films: Enhanced performance due to an electron-injecting layer of ionomers. Chemical Physics Letters, 2005, 408, 31-36.	1.2	24
45	Nanochitins of Varying Aspect Ratio and Properties of Microfibers Produced by Interfacial Complexation with Seaweed Alginate. ACS Sustainable Chemistry and Engineering, 2020, 8, 1137-1145.	3.2	24
46	Ternary melt blends of poly(lactic acid)/poly(vinyl alcohol)-chitosan. Industrial Crops and Products, 2015, 72, 159-165.	2.5	21
47	The potential of TEMPO-oxidized nanofibrillar cellulose beads for cell delivery applications. Cellulose, 2016, 23, 3399-3405.	2.4	21
48	Effect of Sulfonation Level on Solubility and Viscosity Behavior of Low to Medium Charged Sulfonated Polystyrenes. Macromolecules, 2003, 36, 5304-5310.	2.2	19
49	Blendas compatÃveis de amido termoplÃ¡stico e polietileno de baixa densidade compatibilizadas com Ã¡cido cÃtrico. Polimeros, 2011, 21, 353-360.	0.2	18
50	CompatibilizaÃ§Ã£o de blendas de poliamida 6/ABS usando os copolÃmeros acrÃlicos reativos MMA-GMA e MMA-MA. Parte 1: Comportamento reolÃ³gico e propriedades mecÃ¢nicas das blendas. Polimeros, 2003, 13, 205-211.	0.2	17
51	Low-cost, environmentally friendly route for producing CFRP laminates with microfibrillated cellulose interphase. EXPRESS Polymer Letters, 2017, 11, 47-59.	1.1	16
52	Water Susceptibility and Mechanical Properties of Thermoplastic Starchâ€“Pectin Blends Reactively Extruded with Edible Citric Acid. Materials Research, 2016, 19, 138-142.	0.6	15
53	Polystyrene/cellulose nanofibril composites: Fiber dispersion driven by nanoemulsion flocculation. Journal of Molecular Liquids, 2018, 272, 387-394.	2.3	15
54	Thermoreversible crosslinked thermoplastic starch. Polymer International, 2015, 64, 1366-1372.	1.6	13

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55	A minimalist furanâ€“maleimide AB-type monomer and its thermally reversible Dielsâ€“Alder polymerization. RSC Advances, 2016, 6, 45696-45700.	1.7	13
56	Sleeving nanocelluloses by admicellar polymerization. Journal of Colloid and Interface Science, 2013, 408, 256-258.	5.0	12
57	Starch-g-Copolymers: Synthesis, Properties and Applications. , 2013, , 59-109.		12
58	TEMPO-Oxidized Cellulose Nanofibers In Vitro Cyto-genotoxicity Studies. BioNanoScience, 2020, 10, 766-772.	1.5	12
59	Morphological, mechanical and thermal properties of nylon 6/ABS blends using glycidyl methacrylate-methyl methacrylate copolymers. Journal of Materials Science, 2005, 40, 4239-4246.	1.7	11
60	Self-organization of triblock copolymer patterns obtained by drying and dewetting. European Physical Journal E, 2006, 20, 309-315.	0.7	11
61	Lowâ€cost, environmentally friendly route to produce glass fiberâ€reinforced polymer composites with microfibrillated cellulose interphase. Journal of Applied Polymer Science, 2016, 133, .	1.3	11
62	Microfibrillated Cellulose from Sugarcane Bagasse as a Biorefinery Product for Ethanol Production. Journal of Renewable Materials, 2018, 6, 195-202.	1.1	11
63	Wood pulp fiber modification by layer-by-layer (LBL) self-assembly of chitosan/carboxymethyl cellulose complex: Confocal microscopy characterization. Journal of Molecular Liquids, 2019, 273, 368-373.	2.3	11
64	Synthesis of Poly(styrene-co-methyl methacrylate)-Based Ionomers and Their Langmuir and Langmuirâ^'Blodgett (LB) Film Formation. Journal of Physical Chemistry B, 2004, 108, 7033-7039.	1.2	10
65	Trapping of Charge Carriers in Colloidal Particles of Self-Assembled Films from TiO2and Poly(vinyl) Tj ETQq1 1 0.784314 rgBT /Overlock	1.2	10
66	Polymeric coatings for photostability enhancement of poly(<i>p</i>â€phenylene vinylene) derivative films. Polymer International, 2010, 59, 637-641.	1.6	10
67	CompatibilizaÃ§Ã£o de blendas de poliamida 6/ABS usando os copolÃmeros acrÃlicos reativos MMA-GMA e MMA-MA. Parte 2: Comportamento termomecÃ¢nico e morfolÃ³gico das blendas. Polimeros, 2004, 14, 22-30.	0.2	9
68	Characterization of indium-tin-oxide films treated by different procedures: effect of treatment time in aqua regia solution. Materials Science and Engineering C, 2004, 24, 595-599.	3.8	9
69	Electrical characterization of poly(amide-imide) for application in organic field effect devices. Organic Electronics, 2012, 13, 2109-2117.	1.4	9
70	Starch. , 2013, , 129-152.		9
71	Nanocomposites of acid free CNC and HDPE: Dispersion from solvent driven by fast crystallization/gelation. Journal of Molecular Liquids, 2018, 266, 233-241.	2.3	9
72	High Lithium Ion Electroinsertion Rate into Self-Assembled Films Formed from TiO₂. Journal of Physical Chemistry C, 2013, 117, 16774-16782.	1.5	8

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73	Non-freezing water sorbed on microcrystalline cellulose studied by high-resolution thermogravimetric analysis. Cellulose, 2021, 28, 10117-10125.	2.4	8
74	TPS Nanocomposite reinforced with MFC by melting process. Materials Research, 2014, 17, 807-810.	0.6	7
75	Low permeable hydrophobic nanofibrilated cellulose films modified by dipping and heating processing technique. Cellulose, 2021, 28, 1617-1632.	2.4	7
76	Morphology of nylon 6/acrylonitrile-butadiene-styrene blends compatibilized by a methyl methacrylate/maleic anhydride copolymer. Journal of Applied Polymer Science, 2003, 90, 3512-3518.	1.3	6
77	LDPE/EVA Composites for Antimicrobial Properties. Molecular Crystals and Liquid Crystals, 2012, 556, 168-175.	0.4	6
78	The contribution of bisfurfurylamine to the development and properties of polyureas. Polymer International, 2020, 69, 688-692.	1.6	6
79	Electrical properties of polymer/metal interface in polymer light-emitting devices: electron injection barrier suppression. Journal of Materials Science, 2006, 41, 2767-2770.	1.7	5
80	Incorporation of azobenzene chromophore into poly(amide-imide). Journal of Applied Polymer Science, 2007, 103, 841-847.	1.3	5
81	Bioactive Fibrin Scaffolds for Use in Musculoskeletal Regenerative Medicine. Brazilian Archives of Biology and Technology, 0, 63, .	0.5	5
82	Thermally stimulated depolarization current studies of sulfonated polystyrene ionomers. Applied Physics A: Materials Science and Processing, 2009, 97, 947-953.	1.1	4
83	Thermal and Mechanical Properties of Thermoplastic Starch and Poly(Vinyl Alcohol-Co-Ethylene) Blends. Journal of Renewable Materials, 2019, 7, 245-252.	1.1	4
84	Miscibility of Poly(hydroxybutyrate)/Poly(vinyl alcohol) Melt Blends Plasticized With Glycerol. Journal of Renewable Materials, 2019, 7, 325-333.	1.1	4
85	Crosslinking starch with dielsâ€alder reaction: <scp>Waterâ€Soluble</scp> materials and waterâ€mediated processes. Polymer International, 0, , .	1.6	4
86	CaracterizaÃ§Ã£o de gÃ©is termorreversÃveis de SEBS. Polimeros, 2000, 10, 01-07.	0.2	3
87	Photoinduced birefringence in blends of a polyurethane bearing azobenzene moieties and a poly(amide-imide). Polymer International, 2006, 55, 1069-1074.	1.6	3
88	Nanocelluloses from Eucalyptus Wood Pulp. Journal of Renewable Materials, 2014, 2, 118-122.	1.1	3
89	Effect of ion concentration of ionomer in electron injection layer of polymer light-emitting devices. Journal of Non-Crystalline Solids, 2006, 352, 1686-1690.	1.5	2
90	Dynamic formation of SEBS copolymer submicrometric structures. Polymer, 2010, 51, 4145-4151.	1.8	2

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91	Poly-(lactic acid) and fibrin bioactive cellularized scaffold for use in bone regenerative medicine: Proof of concept. Journal of Bioactive and Compatible Polymers, 2021, 36, 171-184.	0.8	2
92	Urethane Modified Hydrophobic Compact Wood Pulp Paper for Oil Spill Cleanup: A Preliminary Study. Journal of Renewable Materials, 2020, 8, 1257-1268.	1.1	2
93	A morphological view of the sodium 4,4â€²â€distyrylbiphenyl sulfonate fluorescent brightness distribution on regenerated cellulose fibers. Journal of Applied Polymer Science, 2010, 118, 2321-2327.	1.3	1
94	Characterization of thermally crosslinkable polyester films by thermomechanical analysis: a versatile and very sensitive technique for the evaluation of low crosslinking degree in polymers. Polymer International, 2018, 67, 1011-1015.	1.6	1
95	Thermoformed Polypropylene Composite Reinforced with Cotton Fabric. Macromolecular Symposia, 2019, 383, 1800068.	0.4	1
96	Water-Based Processing of Fiberboard of Acrylic Resin Composites Reinforced With Cellulose Wood Pulp and Cellulose Nanofibrils. Journal of Renewable Materials, 2019, 7, 403-413.	1.1	1
97	The influence of chitosan, cellulose and alginate chemical nature on mineral matrix formation. International Journal of Polymeric Materials and Polymeric Biomaterials, 0, , 1-11.	1.8	1
98	Conjugation of folic acid with TEMPO-oxidized cellulose hydrogel for doxorubicin administration. Carbohydrate Polymer Technologies and Applications, 2021, 2, 100019.	1.6	1
99	Chemical Modification of Thermoplastic Starch. RSC Green Chemistry, 2015, , 217-235.	0.0	1
100	Fabrication of Mesoscopic Block Copolymer Regular Structures by Dewetting and Phase Separation. , 0, , .		0
101	Thermally stimulated depolarization current studies in thin films of sulfonated polystyrene ionomers. , 2011, , .		0
102	Effect of a Polymeric Protective Coating on Optical and Electrical Properties of Poly(p-phenylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 3	1.5	0
103	Special Issue on 15th Brazilian Polymer Conference: Biopolymers, Eco-Friendly and Biodegradable Polymers and Other Topics Related to Polymeric Materials Derived from Renewable Materials. Journal of Renewable Materials, 2021, 9, 599-600.	1.1	0
104	TEMPO-oxidized cellulose poly-ionic drawn fiber, a cell support system proof of concept. Journal of Materials Science, 2021, 56, 16661-16670.	1.7	0