Marcelo Villar

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/7464922/publications.pdf

Version: 2024-02-01

88 papers	2,752 citations	201674 27 h-index	197818 49 g-index
88 all docs	88 docs citations	88 times ranked	3373 citing authors

#	Article	IF	Citations
1	Oxidation of sodium alginate and characterization of the oxidized derivatives. Carbohydrate Polymers, 2007, 67, 296-304.	10.2	334
2	Influence of the extractionâ€“purification conditions on final properties of alginates obtained from brown algae (Macrocystis pyrifera). International Journal of Biological Macromolecules, 2009, 44, 365-371.	7.5	155
3	Thermal and mechanical characterization of linear low-density polyethylene/wood flour composites. Journal of Applied Polymer Science, 2003, 90, 2775-2784.	2.6	148
4	Thermoplastic starch films reinforced with talc nanoparticles. Carbohydrate Polymers, 2013, 95, 664-674.	10.2	144
5	Food packaging bags based on thermoplastic corn starch reinforced with talc nanoparticles. Food Hydrocolloids, 2015, 43, 18-24.	10.7	137
6	Optimization of an integrated algae-based biorefinery for the production of biodiesel, astaxanthin and PHB. Energy, 2017, 139, 1159-1172.	8.8	89
7	Thermoresponsive hydrogels from alginate-based graft copolymers. European Polymer Journal, 2014, 61, 33-44.	5.4	73
8	Study of oriented block copolymers films obtained by roll-casting. Polymer, 2002, 43, 5139-5145.	3.8	70
9	Biosynthesis of PHB from a new isolated Bacillus megaterium strain: Outlook on future developments with endospore forming bacteria. Biotechnology and Bioprocess Engineering, 2012, 17, 250-258.	2.6	68
10	Active films based on thermoplastic corn starch and chitosan oligomer for food packaging applications. Food Packaging and Shelf Life, 2017, 14, 128-136.	7.5	66
11	Influence of Pendant Chains on Mechanical Properties of Model Poly(dimethylsiloxane) Networks. 2. Viscoelastic Properties. Macromolecules, 1996, 29, 4081-4089.	4.8	65
12	Crystalline morphology of thermoplastic starch/talc nanocomposites induced by thermal processing. Heliyon, 2019, 5, e01877.	3.2	53
13	Synthesis and characterization of a Î²-CD-alginate conjugate. Polymer, 2006, 47, 8509-8516.	3.8	46
14	Thermoplastic starch plasticized with alginateâ€“glycerol mixtures: Melt-processing evaluation and film properties. Carbohydrate Polymers, 2015, 126, 83-90.	10.2	45
15	Thermogravimetric analysis of starch-based biodegradable blends. Polymer Bulletin, 1996, 37, 229-235.	3.3	43
16	Immobilization of enological pectinase in calcium alginate hydrogels: A potential biocatalyst for winemaking. Biocatalysis and Agricultural Biotechnology, 2019, 18, 101091.	3.1	43
17	Rheological properties of thermoplastic starch and starch/poly(ethylene-co-vinyl alcohol) blends. Polymer, 1995, 36, 1869-1876.	3.8	39
18	Influence of Pendant Chains on Mechanical Properties of Model Poly(dimethylsiloxane) Networks. 1. Analysis of the Molecular Structure of the Network. Macromolecules, 1996, 29, 4072-4080.	4.8	37

#	Article	IF	Citations
19	Bioconversion of glycerol to poly(HB-co-HV) copolymer in an inexpensive medium by a Bacillus megaterium strain isolated from marine sediments. Journal of Environmental Chemical Engineering, 2017, 5, 1-9.	6.7	37
20	Rheological characterization of molten ethyleneâ€“Î±-olefin copolymers synthesized with Et[Ind]2ZrCl2/MAO catalyst. Polymer, 2001, 42, 9269-9279.	3.8	36
21	Thermoresponsive hydrogels based on alginate-g-poly(N-isopropylacrylamide) copolymers obtained by low doses of gamma radiation. European Polymer Journal, 2015, 68, 641-649.	5.4	36
22	Contribution of Entanglements to Polymer Network Elasticity. Macromolecules, 2017, 50, 2964-2972.	4.8	36
23	Thermoplastic starch/talc bionanocomposites. Influence of particle morphology on final properties. Food Hydrocolloids, 2015, 51, 432-440.	10.7	35
24	Enhancement of thermoplastic starch final properties by blending with poly(É›-caprolactone). Carbohydrate Polymers, 2015, 134, 205-212.	10.2	34
25	Terminal Relaxation of Model Poly(dimethylsiloxane) Networks with Pendant Chains. Macromolecules, 2001, 34, 4591-4596.	4.8	33
26	Controlled Oneâ€Pot Synthesis of Polystyreneâ€blockâ€Polycaprolactone Copolymers by Simultaneous RAFT and ROP. Macromolecular Chemistry and Physics, 2013, 214, 2336-2344.	2.2	32
27	Agro-industrial residue from starch extraction of Pachyrhizus ahipa as filler of thermoplastic corn starch films. Carbohydrate Polymers, 2015, 134, 324-332.	10.2	31
28	Influence of polydispersity on the viscoelastic properties of linear polydimethylsiloxanes and their binary blends. Polymer, 2000, 41, 6885-6894.	3.8	27
29	IR absorption spectra of lithium and silver vanadiumâ€“tellurite based glasses. Journal of Non-Crystalline Solids, 2007, 353, 2919-2925.	3.1	27
30	Glycerol-based additives of poly(3-hydroxybutyrate) films. Polymer Testing, 2021, 93, 107005.	4.8	27
31	Viscoelastic properties of networks with low concentration of pendant chains. Polymer, 2004, 45, 5923-5931.	3.8	26
32	Synthesis of polybutadiene-graft-poly(dimethylsiloxane) and polyethylene-graft-poly(dimethylsiloxane) copolymers with hydrosilylation reactions. Journal of Polymer Science Part A, 2004, 42, 2920-2930.	2.3	23
33	Bulk hydrosilylation reaction of poly(dimethylsiloxane) chains catalyzed by a platinum salt: Effect of the initial concentration of reactive groups on the final extent of reaction. Journal of Polymer Science Part A, 2003, 41, 1099-1106.	2.3	22
34	Synthesis and characterization of model diblock copolymers of poly(dimethylsiloxane) with poly(1,4-butadiene) or poly(ethylene). Journal of Polymer Science Part A, 2006, 44, 1579-1590.	2.3	22
35	Application of Dynamic Optimization Techniques for Poly(Î²-hydroxybutyrate) Production in a Fed-Batch Bioreactor. Industrial & Engineering Chemistry Research, 2010, 49, 1762-1769.	3.7	22
36	Contribution of Linear Guest and Structural Pendant Chains to Relaxational Dynamics in Model Polymer Networks Probed by Time-Domain 1H NMR. Macromolecules, 2016, 49, 387-394.	4.8	22

#	Article	IF	Citations
37	Permeability and diffusional studies on silicone polymer networks with controlled dangling chains. Polymer, 1996, 37, 101-107.	3.8	21
38	Synthesis and morphology of model PSâ€‹bâ€PDMS copolymers. Journal of Polymer Science Part A, 2010, 48, 3119-3127.	2.3	21
39	Design and optimization of poly(hydroxyalkanoate)s production plants using alternative substrates. Bioresource Technology, 2019, 289, 121699.	9.6	21
40	Arm Retraction Potential of Branched Polymers in the Absence of Dynamic Dilution. Physical Review Letters, 2005, 95, 166002.	7.8	20
41	Controlled synthesis of poly(dimethylsiloxane) homopolymers using highâ€vacuum anionic polymerization techniques. Journal of Polymer Science Part A, 2009, 47, 4774-4783.	2.3	20
42	Transiently Trapped Entanglements in Model Polymer Networks. Macromolecules, 2009, 42, 4674-4680.	4.8	20
43	Rheology of aqueous mulliteâ€“starch suspensions. Journal of the European Ceramic Society, 2011, 31, 1563-1571.	5.7	20
44	Macroporous poly(EGDMA-co-HEMA) networks: Morphological characterization from their behaviour in the swelling process. Polymer, 2012, 53, 2949-2955.	3.8	20
45	FTIR,13C NMR, and GPC analysis of high-propylene content co- and terpolymers with ethylene and higher ?-olefins synthesized with Et(Ind2ZrCl2/MAO. Journal of Polymer Science Part A, 2001, 39, 2005-2018.	2.3	19
46	Irradiation-modification of starch-containing thermoplastic blends. I. Modification of properties and microstructure. Journal of Applied Polymer Science, 1996, 61, 139-155.	2.6	17
47	Synthesis of Grafted Block Copolymers Based on Îµâ€Caprolactone: Influence of Branches on Their Thermal Behavior. Macromolecular Chemistry and Physics, 2015, 216, 2331-2343.	2.2	16
48	Relaxation modes of molten polydimethylsiloxane. Rheologica Acta, 1998, 37, 449-462.	2.4	15
49	Comparison of Mean-Field Theory and 1H NMR Transversal Relaxation of Poly(dimethylsiloxane) Networks. Macromolecules, 2001, 34, 283-288.	4.8	15
50	Defect formation during a continuous phase transition. Europhysics Letters, 2009, 87, 66003.	2.0	15
51	Production of Fermentation Feedstock from Jerusalem Artichoke Tubers and its Potential for Polyhydroxybutyrate Synthesis. Waste and Biomass Valorization, 2013, 4, 359-370.	3.4	15
52	Electrical response of bivalent modifier cations into a vanadiumâ€“tellurite glassy matrix. Journal of Non-Crystalline Solids, 2014, 387, 107-111.	3.1	15
53	A new way of quantifying the production of poly(hydroxyalkanoate)s using FTIR. Journal of Chemical Technology and Biotechnology, 2016, 91, 1240-1249.	3.2	15
54	Biocomposites Based on Thermoplastic Starch and Granite Sand Quarry Waste. Journal of Renewable Materials, 2019, 7, 393-402.	2.2	15

#	Article	IF	Citations
55	Composite films with UV barrier capacity to minimize flavored waters degradation. Food Packaging and Shelf Life, 2019, 21, 100334.	7.5	14
56	Microscopic State of Polymer Network Chains upon Swelling and Deformation. Macromolecules, 2019, 52, 5042-5053.	4.8	14
57	Thermogelling behaviour of starches to be used in ceramic consolidation processes. Ceramics International, 2010, 36, 1017-1026.	4.8	13
58	Modeling the bioconversion of starch to P(HB-co-HV) optimized by experimental design using Bacillus megaterium BBST4 strain. Environmental Technology (United Kingdom), 2019, 40, 1185-1202.	2.2	12
59	Model polydimethylsiloxanes subjected to thermal weathering: effect on molecular weight distributions. Polymer Degradation and Stability, 2000, 69, 67-71.	5.8	11
60	Novel synthesis of polyethylene-poly(dimethylsiloxane) copolymers with a metallocene catalyst. Journal of Polymer Science Part A, 2004, 42, 2462-2473.	2.3	11
61	Novel spectrophotometric technique for rapid determination of extractable PHA using Sudan black dye. Journal of Biotechnology, 2017, 255, 28-32.	3.8	11
62	Oxidative Degradation of Thermoplastic Starch Induced by UV Radiation. Journal of Renewable Materials, 2019, 7, 383-391.	2.2	11
63	Optical properties of CaCO3-filled poly(ethylene-co-vinyl acetate) films. Optical Materials, 2001, 17, 437-442.	3.6	10
64	Double Quantum NMR Applied to Polymer Networks with Low Concentration of Pendant Chains. Macromolecules, 2006, 39, 4788-4792.	4.8	10
65	Synthesis and characterization of model polybutadiene-1,4-b-polydimethylsiloxane-b-polybutadiene-1,4 copolymers. Journal of Polymer Science Part A, 2007, 45, 2726-2733.	2.3	10
66	Viscoelastic response of linear defects trapped in polymer networks. European Polymer Journal, 2015, 64, 1-9.	5.4	10
67	Assessment of alternative sources of seaweed polysaccharides in Argentina: potentials of the agarophyte Gelidium crinale (Hare ex Turner) Gaillon (Rhodophyta, Gelidiales). Journal of Applied Phycology, 2015, 27, 2099-2110.	2.8	10
68	Processingâ€“propertiesâ€“applications relationship of nanocomposites based on thermoplastic corn starch and talc. Polymer Composites, 2018, 39, 1331-1338.	4.6	10
69	Dynamic response of transiently trapped entanglements in polymer networks. Polymer, 2014, 55, 1061-1069.	3.8	9
70	Improved intracellular PHA determinations with novel spectrophotometric quantification methodologies based on Sudan black dye. Journal of Microbiological Methods, 2018, 148, 1-11.	1.6	9
71	Synthesis and physicochemical characterization of a well-defined poly(butadiene) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 102 Td	3.8	8
72	Thermal Characterization of â€œCombâ€Likeâ€•Block Copolymers Based on PCL Obtained by Combining ROP and RAFT Polymerizations. Macromolecular Symposia, 2016, 368, 84-92.	0.7	8

#	Article	IF	Citations
73	Influence of the final extent of reaction on the structure of model polydimethylsiloxane networks obtained by the end-linking hydrosilation reaction. Polymer Bulletin, 1995, 35, 279-284.	3.3	7
74	Irradiation-modification of starch-containing thermoplastic blends. II. Rheological studies. Journal of Applied Polymer Science, 1996, 61, 157-162.	2.6	6
75	Photopolymerization-assisted self-assembly as a strategy to obtain a dispersion of very high aspect ratio nanostructures in a polystyrene matrix. European Polymer Journal, 2019, 112, 704-713.	5.4	6
76	Linear viscoelastic relaxation modulus of polydisperse poly(dimethylsiloxane) melts containing unentangled chains. Polymer, 2002, 43, 3035-3045.	3.8	5
77	Phase behavior of model poly(butadiene 1,3)-block-(dimethylsiloxane) copolymers. Polymer, 2015, 59, 180-186.	3.8	5
78	Enhancement of mechanical and optical performance of commercial polystyrenes by blending with siloxaneâ€based copolymers. Journal of Applied Polymer Science, 2017, 134, 45122.	2.6	5
79	Structure of Micelles Formed by Highly Asymmetric Polystyrene-b-Polydimethylsiloxane and Polystyrene-b-poly[5-(N,N-diethylamino)isoprene] Diblock Copolymers. Langmuir, 2010, 26, 14494-14501.	3.5	4
80	Direct 3D Printing of Poly(lactic acid) on Cotton Fibers: Characterization of Materials and Study of Adhesion Properties of the Resulting Composites. Macromolecular Symposia, 2020, 394, 1900190.	0.7	4
81	Preparation and Characterization of an Immobilized Enological Pectinase on Agarâ€Alginate Beads. Macromolecular Symposia, 2020, 394, 1900208.	0.7	4
82	Vinasse: from a residue to a high added value biopolymer. Bioresources and Bioprocessing, 2021, 8, .	4.2	4
83	Rouse's dynamics of networks with pendant chains. Journal of Polymer Science, Part B: Polymer Physics, 1999, 37, 1121-1130.	2.1	3
84	Facile one-pot synthesis and solution behavior of poly(acrylic acid)-block-polycaprolactone copolymers. Journal of Molecular Liquids, 2019, 273, 99-106.	4.9	2
85	Efecto de la adiciÃ³n de bentonita sobre las propiedades Ã³pticas de diferentes materiales compuestos polimÃ©ricos. Revista Materia, 2018, 23, .	0.2	1
86	FabricaciÃ³n de recubrimientos compuestos de BioglassÂ®/poli(É›-capro-lactona) obtenidos por co-deposiciÃ³n electroforÃ©tica sobre acero inoxidable. Revista Materia, 2018, 23, .	0.2	1
87	Composite coatings based on linear and branched block copolymers for hydroxyapatite deposition in simulated body-fluid. Polymer-Plastics Technology and Materials, 2020, 59, 985-997.	1.3	1
88	PelÃcula biodegradable de almidÃ³n de maÃz termoplÃ¡stico y quitosano con actividad antimicrobiana empleada como envase activo. Revista Materia, 2018, 23, .	0.2	0