Maria H Gil

List of Publications by Year
in descending order

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126 papers	5,201 citations	87888 38 h-index	98798 67 g-index
127 all docs	127 docs citations	127 times ranked	6572 citing authors

#	Article	IF	Citations
1	Development of novel alginate based hydrogel films for wound healing applications. International Journal of Biological Macromolecules, 2013, 52, 221-230.	7.5	325
2	Hornification?its origin and interpretation in wood pulps. Wood Science and Technology, 2004, 37, 489-494.	3.2	322
3	Drug delivery systems: Advanced technologies potentially applicable in personalized treatments. EPMA Journal, 2010, 1, 164-209.	6.1	293
4	Synthesis and characterization of new injectable and degradable dextran-based hydrogels. Polymer, 2005, 46, 9604-9614.	3.8	209
5	Biodegradable poly(ester amide)s â€“ A remarkable opportunity for the biomedical area: Review on the synthesis, characterization and applications. Progress in Polymer Science, 2014, 39, 1291-1311.	24.7	182
6	Preparation and chemical and biological characterization of a pectin/chitosan polyelectrolyte complex scaffold for possible bone tissue engineering applications. International Journal of Biological Macromolecules, 2011, 48, 112-118.	7.5	166
7	Development of natural-based wound dressings impregnated with bioactive compounds and using supercritical carbon dioxide. International Journal of Pharmaceutics, 2011, 408, 9-19.	5.2	159
8	Poly(dimethyl siloxane) surface modification by low pressure plasma to improve its characteristics towards biomedical applications. Colloids and Surfaces B: Biointerfaces, 2010, 81, 20-26.	5.0	151
9	Evaluation of poly(2-hydroxyethyl methacrylate) gels as drug delivery systems at different pH values. International Journal of Pharmaceutics, 2000, 194, 169-180.	5.2	147
10	Effects of drug solubility, state and loading on controlled release in bicomponent electrospun fibers. International Journal of Pharmaceutics, 2010, 397, 50-58.	5.2	144
11	Modification of the biopolymer castor oil with free isocyanate groups to be applied as bioadhesive. International Journal of Biological Macromolecules, 2007, 40, 144-152.	7.5	123
12	Supercritical solvent impregnation of ophthalmic drugs on chitosan derivatives. Journal of Supercritical Fluids, 2008, 44, 245-257.	3.2	101
13	Supercritical fluid-assisted preparation of imprinted contact lenses for drug delivery. Acta Biomaterialia, 2011, 7, 1019-1030.	8.3	99
14	Development of therapeutic contact lenses using a supercritical solvent impregnation method. Journal of Supercritical Fluids, 2010, 52, 306-316.	3.2	97
15	Synthesis and characterization of membranes obtained by graft copolymerization of 2-hydroxyethyl methacrylate and acrylic acid onto chitosan. International Journal of Pharmaceutics, 2006, 310, 37-45.	5.2	91
16	Anti-glaucoma drug-loaded contact lenses prepared using supercritical solvent impregnation. Journal of Supercritical Fluids, 2010, 53, 165-173.	3.2	86
17	Development of a new photocrosslinkable biodegradable bioadhesive. International Journal of Pharmaceutics, 2008, 352, 172-181.	5.2	74
18	Enzymatic synthesis of dextran-containing hydrogels. Biomaterials, 2002, 23, 3957-3967.	11.4	72

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19	An improved method for preparing glutaraldehyde cross-linked chitosanâ€“poly(vinyl alcohol) microparticles. Polymer Bulletin, 2013, 70, 549-561.	3.3	67
20	Biocatalytic synthesis of highly ordered degradable dextran-based hydrogels. Biomaterials, 2005, 26, 4707-4716.	11.4	65
21	Synthesis of poly(vinyl chloride)-b-poly(n-butyl acrylate)-b-poly(vinyl chloride) by the competitive single-electron-transfer/degenerative-chain-transfer-mediated living radical polymerization in water. Journal of Polymer Science Part A, 2006, 44, 3001-3008.	2.3	63
22	Influence of Aloe vera on water absorption and enzymatic in vitro degradation of alginate hydrogel films. Carbohydrate Polymers, 2013, 98, 311-320.	10.2	63
23	Controlled release gelatin hydrogels and lyophilisates with potential application as ocular inserts. Biomedical Materials (Bristol), 2007, 2, 241-249.	3.3	54
24	Photocrosslinkable biodegradable responsive hydrogels as drug delivery systems. International Journal of Biological Macromolecules, 2011, 49, 948-954.	7.5	54
25	Surface modification of a thermoplastic polyurethane by lowâ€pressure plasma treatment to improve hydrophilicity. Journal of Applied Polymer Science, 2011, 122, 2302-2308.	2.6	54
26	Synthesis, Characterization, and Relaxivity of Two Linear Gd(DTPA)â^'Polymer Conjugates. Bioconjugate Chemistry, 2001, 12, 170-177.	3.6	53
27	Development of a biodegradable bioadhesive containing urethane groups. Journal of Materials Science: Materials in Medicine, 2008, 19, 111-120.	3.6	52
28	Single electron transferâ€“degenerative chain transfer living radical polymerization of N-butyl acrylate catalyzed by Na2S2O4 in water media. Journal of Polymer Science Part A, 2006, 44, 2809-2825.	2.3	51
29	Processability and characterization of poly(vinyl chloride)-b-poly(n-butyl acrylate)-b-poly(vinyl) Tj ETQq1 1 0.784314 rgBT /Overlock 10 T commercial resin formulation prepared with PVC and dioctyl phthalate. Journal of Vinyl and Additive Technology, 2006, 12, 156-165.	3.4	49
30	Improving polymeric surfaces for biomedical applications: a review. Journal of Coatings Technology Research, 2015, 12, 463-475.	2.5	49
31	Solubility of IrgacureÂ® 2959 photoinitiator in supercritical carbon dioxide: Experimental determination and correlation. Journal of Supercritical Fluids, 2008, 45, 272-281.	3.2	48
32	Tailoring the properties of gelatin films for drug delivery applications: Influence of the chemical cross-linking method. International Journal of Biological Macromolecules, 2014, 70, 10-19.	7.5	46
33	Ocular injectable formulation assessment for oxidized dextran-based hydrogels. Acta Biomaterialia, 2009, 5, 1948-1955.	8.3	42
34	Preparation and characterization of flurbiprofen-loaded poly(3-hydroxybutyrate-co-3-hydroxyvalerate) microspheres. Journal of Microencapsulation, 2008, 25, 170-178.	2.8	41
35	Experimental Determination and Correlation of Artemisinin's Solubility in Supercritical Carbon Dioxide. Journal of Chemical & Engineering Data, 2006, 51, 1097-1104.	1.9	40
36	Synthesis of Poly(lauryl acrylate) by Single-Electron Transfer/Degenerative Chain Transfer Living Radical Polymerization Catalyzed by Na2S2O4 in Water. Macromolecular Chemistry and Physics, 2007, 208, 1218-1227.	2.2	40

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37	Surface grafting of a thermoplastic polyurethane with methacrylic acid by previous plasma surface activation and by ultraviolet irradiation to reduce cell adhesion. Colloids and Surfaces B: Biointerfaces, 2011, 82, 371-377.	5.0	40
38	Design and characterization of bi-soft segmented polyurethane microparticles for biomedical application. Colloids and Surfaces B: Biointerfaces, 2011, 88, 477-482.	5.0	40
39	Photocrosslinkable starch-based polymers for ophthalmologic drug delivery. International Journal of Biological Macromolecules, 2008, 43, 325-332.	7.5	39
40	Influence of the isomeric structures of butyl acrylate on its singleâ€electron transferâ€degenerative chain transfer living radical polymerization in water Catalyzed by Na₂S₂O₄. Journal of Polymer Science Part A, 2008, 46, 6542-6551.	2.3	38
41	Structural analysis of dextran-based hydrogels obtained chemoenzymatically. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2006, 77B, 55-64.	3.4	37
42	The immobilization of enzymes onto hydrolyzed polyethylene-g-co-2-HEMA. Journal of Applied Polymer Science, 1988, 35, 135-144.	2.6	35
43	Suitability of gamma irradiated chitosan based membranes as matrix in drug release system. International Journal of Pharmaceutics, 2010, 395, 142-146.	5.2	35
44	Impregnation of an Intraocular Lens for Ophthalmic Drug Delivery. Current Drug Delivery, 2008, 5, 102-107.	1.6	34
45	Antibacterial layer-by-layer coatings to control drug release from soft contact lenses material. International Journal of Pharmaceutics, 2018, 553, 186-200.	5.2	33
46	Preparation of gentamicin sulfate eluting fiber mats by emulsion and by suspension electrospinning. Materials Science and Engineering C, 2019, 94, 86-93.	7.3	33
47	Lipase immobilisation on to polymeric membranes. Biotechnology Letters, 1999, 13, 403-409.	0.5	32
48	Experimental (IR/Raman and ¹H/¹³C NMR) and Theoretical (DFT) Studies of the Preferential Conformations Adopted by <scp>l</scp>-Lactic Acid Oligomers and Poly(<scp>l</scp>-lactic acid) Homopolymer. Journal of Physical Chemistry B, 2012, 116, 9-21.	2.6	32
49	Polyurethane-based microparticles: Formulation and influence of processes variables on its characteristics. Journal of Microencapsulation, 2008, 25, 154-169.	2.8	31
50	Synthesis of poly(2â€methoxyethyl acrylate) by single electron transferâ€"Degenerative transfer living radical polymerization catalyzed by Na₂S₂O₄ in water. Journal of Polymer Science Part A, 2009, 47, 4454-4463.	2.3	28
51	In vitro and in vivo evaluation of an intraocular implant for glaucoma treatment. International Journal of Pharmaceutics, 2011, 415, 73-82.	5.2	28
52	The immobilizaton of enzymes, bovine serum albumin, and phenylpropylamine to poly(acrylic) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 142	3.3	27
53	Solubility of Diflunisal in Supercritical Carbon Dioxide. Journal of Chemical & Engineering Data, 2008, 53, 1990-1995.	1.9	27
54	Synthesis of poly(ethyl acrylate) by single electron transferâ€degenerative chain transfer living radical polymerization in water catalyzed by Na₂S₂O₄. Journal of Polymer Science Part A, 2008, 46, 421-432.	2.3	26

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55	Covalent binding of urease on ammonium-selective potentiometric membranes. Biosensors and Bioelectronics, 1992, 7, 645-652.	10.1	25
56	Enzymatic Synthesis of Inulin-Containing Hydrogels. Biomacromolecules, 2002, 3, 333-341.	5.4	25
57	Cellulose Derivatives Membranes as Supports for Immobilisation of Enzymes. Cellulose, 1998, 5, 299-308.	4.9	24
58	Improved drug loading/release capacities of commercial contact lenses obtained by supercritical fluid assisted molecular imprinting methods. Journal of Controlled Release, 2010, 148, e102-e104.	9.9	24
59	Photocurable bioadhesive based on lactic acid. Materials Science and Engineering C, 2016, 58, 601-609.	7.3	24
60	Immobilization of BSA, enzymes and cells ofBacillus stearothermophilus onto cellulose, polygalacturonic acid and starch based graft copolymers containing maleic anhydride. Biotechnology and Bioengineering, 1986, 28, 51-57.	3.3	23
61	Grafting of selected presynthesized macromonomers onto various dispersions of silica particles. Journal of Applied Polymer Science, 2002, 85, 1287-1296.	2.6	23
62	Study of an enzyme coupled system for the development of fibre optical bilirubin sensors. Biosensors and Bioelectronics, 1996, 11, 347-354.	10.1	22
63	Particle features and morphology of poly(vinyl chloride) prepared by living radical polymerisation in aqueous media. Insight about particle formation mechanism. Polymer, 2011, 52, 2998-3010.	3.8	22
64	Eugenol-loaded microspheres incorporated into textile substrates. Cellulose, 2020, 27, 4109-4121.	4.9	22
65	Imprinted hydrogels with LbL coating for dual drug release from soft contact lenses materials. Materials Science and Engineering C, 2021, 120, 111687.	7.3	21
66	An electrochemical bienzyme membrane sensor for free cholesterol. Bioelectrochemistry, 1992, 28, 105-115.	1.0	20
67	Thermal Characterization of Chitosanâ€Grafted Membranes to be Used as Wound Dressings. Journal of Carbohydrate Chemistry, 2006, 25, 233-251.	1.1	20
68	A poly(Îµ-caprolactone) device for sustained release of an anti-glaucoma drug. Biomedical Materials (Bristol), 2011, 6, 025003.	3.3	20
69	New drug-eluting lenses to be applied as bandages after keratoprosthesis implantation. International Journal of Pharmaceutics, 2014, 477, 218-226.	5.2	20
70	Behaviour of catalase immobilised on poly(acrylonitrile)-g.co-hydroxyethyl methacrylate when used in a continuous system. Polymer International, 1995, 38, 269-275.	3.1	19
71	Controlled release of moxifloxacin from intraocular lenses modified by Ar plasma-assisted grafting with AMPS or SBMA: An in vitro study. Colloids and Surfaces B: Biointerfaces, 2017, 156, 95-103.	5.0	19
72	Enzyme-linked immunofiltration assay used in the screening of solid supports and immunoreagents for the development of an azinphos-methyl flow immunosensor. Journal of Immunological Methods, 2002, 260, 173-182.	1.4	18

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73	Cotton gauze bandage: a support for protease immobilization for use in biomedical applications. BJPS: Brazilian Journal of Pharmaceutical Sciences, 2007, 43, 535-542.	0.5	18
74	Poly(dimethyl siloxane) surface modification with biosurfactants isolated from probiotic strains. Journal of Biomedical Materials Research - Part A, 2011, 98A, 535-543.	4.0	18
75	Synthesis of high glass transition temperature copolymers based on poly(vinyl chloride) via single electron transferâ€"Degenerative chain transfer mediated living radical polymerization (SETâ€DTLRP) of vinyl chloride in water. Journal of Polymer Science Part A, 2009, 47, 7021-7031.	2.3	17
76	Synthesis of a dextran based thermo-sensitive drug delivery system by gamma irradiation. International Journal of Biological Macromolecules, 2013, 61, 150-155.	7.5	17
77	Exquisite Regioselectivity and Increased Transesterification Activity of an Immobilized Bacillus subtilis Protease. Biotechnology Progress, 2002, 18, 986-993.	2.6	16
78	Synthesis and characterization of a poly(ethylene glycol) prepolymer to be applied as a bioadhesive. Journal of Applied Polymer Science, 2007, 105, 593-601.	2.6	15
79	In situ forming chitosan hydrogels: Preliminary evaluation of the in vivo inflammatory response. Materials Science and Engineering C, 2017, 75, 279-285.	7.3	15
80	Wood adhesives derived from alkaline extracts of maritime Pine bark: preparation, physical characteristics and bonding efficacy. European Journal of Wood and Wood Products, 2002, 60, 303-310.	2.9	14
81	Immobilisation of Cardosin A in Chitosan Sponges as a Novel Implant for Drug Delivery. Current Drug Discovery Technologies, 2005, 2, 231-238.	1.2	14
82	Thermal characterization of poly(vinyl chloride) samples prepared by living radical polymerization: Comparison with poly(vinyl chloride) prepared by free radical polymerization. Journal of Applied Polymer Science, 2008, 109, 2729-2736.	2.6	14
83	Poly(ester amide)s based on (L)-lactic acid oligomers and Î±-amino acids: influence of the Î±-amino acid side chain in the poly(ester amide)s properties. Journal of Biomaterials Science, Polymer Edition, 2013, 24, 1391-1409.	3.5	14
84	Improving cell adhesion: development of a biosensor for cell behaviour monitoring by surface grafting of sulfonic groups onto a thermoplastic polyurethane. Journal of Materials Science: Materials in Medicine, 2014, 25, 2017-2026.	3.6	14
85	Immobilization of drugs for glaucoma treatment. Journal of Materials Science: Materials in Medicine, 2007, 18, 2309-2317.	3.6	13
86	Novel poly(ester amide)s from glycine and <scp>L</scp>â€lactic acid by an easy and costâ€effective synthesis. Polymer International, 2013, 62, 736-743.	3.1	13
87	Investigation of the immobilisation of bovine serum albumin, trypsin, acid phosphatase and alkaline phosphatase to poly(hydroxyethyl acrylate)-co-cellulose and poly(hydroxyethyl acrylate)-co-pectin. Polymer Bulletin, 1984, 11, 1-6.	3.3	12
88	Immobilization of Î±-chymotrypsin onto hydrolyzed poly(ethylene)-g-co-hydroxyethyl methacrylate. Journal of Applied Polymer Science, 1990, 41, 1629-1639.	2.6	12
89	Study of the thermal stability and enzymatic activity of an immobilised enzymatic system for the bilirubin oxidation. Biomaterials, 1999, 20, 757-763.	11.4	11
90	Biocatalytic Polytransesterification of Inulin with Divinyladipate. Chemistry of Materials, 2002, 14, 4009-4011.	6.7	10

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91	Role of Guanidyl Moiety in the Insertion of Arginine and NÎ±-Benzoyl-l-argininate Ethyl Ester Chloride in Lipid Membranes. Journal of Physical Chemistry B, 2010, 114, 5946-5952.	2.6	10
92	Synthesis and Characterization of Co-polymers Based on Methyl Methacrylate and 2-Hexyl Acrylate Containing Naphthopyrans for a Light-Sensitive Contact Lens. Journal of Biomaterials Science, Polymer Edition, 2011, 22, 139-152.	3.5	10
93	Functionalization and photocuring of an L-lactic acid macromer for biomedical applications. International Journal of Polymeric Materials and Polymeric Biomaterials, 2016, 65, 497-507.	3.4	10
94	Immobilization of Lipase from Mucor Miehei Onto Poly (Ethylene) Based Graft Copolymers. Biocatalysis, 1992, 6, 223-234.	0.9	9
95	Synthesis of N-Octyl Oleate with Lipase from Mucor miehei Immobilized onto Polyethylene Based Graft Copolymers. Biocatalysis, 1994, 9, 157-167.	0.9	9
96	Poly(vinyl chloride) and wood flour press mould composites: New bonding strategies. Journal of Applied Polymer Science, 2009, 113, 2727-2738.	2.6	9
97	Characterization of cellulose derivatives ? Relevance to sensor development. Cellulose, 1995, 2, 243-263.	4.9	8
98	Ketotifen controlled release from cellulose acetate propionate and cellulose acetate butyrate membranes. Journal of Materials Science: Materials in Medicine, 2008, 19, 677-682.	3.6	8
99	Surface modification of thermoplastic polyurethane in order to enhance reactivity and avoid cell adhesion. Colloid and Polymer Science, 2009, 287, 1469-1474.	2.1	8
100	Improving lactic acid melt polycondensation: The role of coâ€catalyst. Journal of Applied Polymer Science, 2013, 128, 2145-2151.	2.6	8
101	Poly(ester amide)s based on l-lactic acid oligomers and glycine: the role of the central unit of the l-lactic acid oligomers and their molecular weight in the poly(ester amide)s properties. Polymer Bulletin, 2014, 71, 3085-3109.	3.3	8
102	Preparation of poly(vinyl chloride) latexes using a dual surfactant system: The effect in the particle size distribution. Journal of Applied Polymer Science, 2009, 112, 1416-1424.	2.6	7
103	VEGF-Functionalized Dextran Has Longer Intracellular Bioactivity than VEGF in Endothelial Cells. Biomacromolecules, 2012, 13, 2906-2916.	5.4	7
104	Bulk polytransesterification of <scp>L</scp>â€lactic acid esters: An alternative route to synthesize poly(lactic acid). Journal of Applied Polymer Science, 2012, 125, E283.	2.6	7
105	Engineering star-shaped lactic acid oligomers to develop novel functional adhesives. Journal of Materials Research, 2018, 33, 1463-1474.	2.6	7
106	Fluorinated additives for stain-resistant matt latex paints. Journal of Coatings Technology Research, 2009, 6, 483-491.	2.5	6
107	Deviation from the theoretical predictions in the synthesis of amphiphilic block copolymers in a wide range of compositions based on poly(vinyl chloride) by single electron transfer: Degenerative chain living radical polymerization in suspension medium. Journal of Applied Polymer Science, 2013, 127, 3407-3417.	2.6	6
108	Microcapsules prepared from starch derivatives. Journal of Materials Science: Materials in Medicine, 1997, 8, 321-323.	3.6	5

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109	New Approaches in Drug Delivery Systems: Application for Diabetes Treatment. Infectious Disorders - Drug Targets, 2008, 8, 119-128.	0.8	5
110	¹H NMR Spectroscopic and Quantum Chemical Studies on a Poly(ester amide) Model Compound: N_{Î±}-Benzoyl-<scp>l</scp>-Argininate Ethyl Ester Chloride. Structural Preferences for the Isolated Molecule and in Solution. Journal of Physical Chemistry B, 2010, 114, 6156-6164.	2.6	5
111	Electrospun composite fibers of PLA/PLGA blends and mesoporous silica nanoparticles for the controlled release of gentamicin sulfate. International Journal of Polymeric Materials and Polymeric Biomaterials, 2022, 71, 635-646.	3.4	5
112	Modification of poly(3â€hydroxybutyrate)â€coâ€poly(3â€hydroxyvalerate) with natural rubber. Journal of Applied Polymer Science, 2010, 116, 718-726.	2.6	4
113	Study of NÎ±-benzoyl-L-argininate ethyl ester chloride, a model compound for poly(ester amide) precursors: X-ray diffraction, infrared and Raman spectroscopies, and quantum chemistry calculations. Journal of Chemical Physics, 2011, 134, 124505.	3.0	4
114	Poly(vinyl chloride)â€bâ€poly(hydroxypropyl acrylate)â€bâ€Poly(vinyl chloride): Understanding the synthesis of an amphiphilic PVC block copolymer on a pilot scale. Journal of Vinyl and Additive Technology, 2013, 19, 94-104.	3.4	4
115	An electrochemical bienzyme membrane sensor for free cholesterol. Journal of Electroanalytical Chemistry, 1992, 343, 105-115.	3.8	3
116	The immobilisation of bovine serum albumin, acid phosphatase, glucose oxidase and phenyl propylamine to maleic anhydride block copolymers. Polymer Bulletin, 1985, 14, 199-206.	3.3	2
117	Membranes of Cellulose Derivatives as Supports for Immobilization of Enzymes. ACS Symposium Series, 1999, , 228-234.	0.5	2
118	Surface Area Characterization of Several Woodpulps by Humidity Adsorption. Holzforschung, 2002, 56, 176-178.	1.9	2
119	The X-ray irradiation of modified silica beads in the presence of hydroxyethyl methacrylate â€“ graft vs. homopolymerization. Macromolecular Chemistry and Physics, 2002, 203, 1370-1376.	2.2	2
120	Development of semitransparent wood-polymer composites. Journal of Vinyl and Additive Technology, 2012, 18, 95-104.	3.4	2
121	Surface Area Determinations in Woodpulps by Humidity Adsorption. Holzforschung, 2001, 55, 324-327.	1.9	1
122	Influence of Albumin on Mineralization of PMMA-Based/Glass Composites. Journal of Applied Biomaterials and Functional Materials, 2012, 10, 92-98.	1.6	1
123	Modeling the drug release from ionic and covalent co-cross-linked chitosan hydrogels. Computer Aided Chemical Engineering, 2017, , 1021-1026.	0.5	1
124	Thermal-responsive hydrogels for sublingual administration of Ondansetronâ„¢. International Journal of Polymeric Materials and Polymeric Biomaterials, 2018, 67, 765-775.	3.4	1
125	Molecular Dynamics Study of Oligomer-Membrane Complexes with Biomedical Relevance. Advanced Structured Materials, 2013, , 55-67.	0.5	0
126	Modelling the Release of Moxifloxacin from Plasma Grafted Intraocular Lenses with Rotational Symmetric Numerical Framework. Lecture Notes in Computer Science, 2018, , 329-339.	1.3	0