Maria H Gil

List of Publications by Citations

127 papers	4,280 citations	35 h-index	61 g-index
127 ext. papers	4,676 ext. citations	4.9 avg, IF	5.27 L-index

#	Paper	IF	Citations
127	Hornification—its origin and interpretation in wood pulps. *Wood Science and Technology*, **2004**, 37, 489-494	2.5	261
126	Development of novel alginate based hydrogel films for wound healing applications. *International Journal of Biological Macromolecules*, **2013**, 52, 221-30	7.9	236
125	Drug delivery systems: Advanced technologies potentially applicable in personalized treatments. *EPMA Journal*, **2010**, 1, 164-209	8.8	221
124	Synthesis and characterization of new injectable and degradable dextran-based hydrogels. *Polymer*, **2005**, 46, 9604-9614	3.9	187
123	Biodegradable poly(ester amide)s – A remarkable opportunity for the biomedical area: Review on the synthesis, characterization and applications. *Progress in Polymer Science*, **2014**, 39, 1291-1311	29.6	143
122	Poly(dimethyl siloxane) surface modification by low pressure plasma to improve its characteristics towards biomedical applications. *Colloids and Surfaces B: Biointerfaces*, **2010**, 81, 20-6	6	137
121	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, 112-8	7.9	130
120	Development of natural-based wound dressings impregnated with bioactive compounds and using supercritical carbon dioxide. *International Journal of Pharmaceutics*, **2011**, 408, 9-19	6.5	130
119	Evaluation of poly(2-hydroxyethyl methacrylate) gels as drug delivery systems at different pH values. *International Journal of Pharmaceutics*, **2000**, 194, 169-80	6.5	130
118	Effects of drug solubility, state and loading on controlled release in bicomponent electrospun fibers. *International Journal of Pharmaceutics*, **2010**, 397, 50-8	6.5	121
117	Modification of the biopolymer castor oil with free isocyanate groups to be applied as bioadhesive. *International Journal of Biological Macromolecules*, **2007**, 40, 144-52	7.9	92
116	Development of therapeutic contact lenses using a supercritical solvent impregnation method. *Journal of Supercritical Fluids*, **2010**, 52, 306-316	4.2	90
115	Supercritical solvent impregnation of ophthalmic drugs on chitosan derivatives. *Journal of Supercritical Fluids*, **2008**, 44, 245-257	4.2	90
114	Supercritical fluid-assisted preparation of imprinted contact lenses for drug delivery. *Acta Biomaterialia*, **2011**, 7, 1019-30	10.8	86
113	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	6.5	82
112	Anti-glaucoma drug-loaded contact lenses prepared using supercritical solvent impregnation. *Journal of Supercritical Fluids*, **2010**, 53, 165-173	4.2	76
111	Enzymatic synthesis of dextran-containing hydrogels. *Biomaterials*, **2002**, 23, 3957-67	15.6	71

110	Development of a new photocrosslinkable biodegradable bioadhesive. *International Journal of Pharmaceutics*, **2008**, 352, 172-81	6.5	62
109	Biocatalytic synthesis of highly ordered degradable dextran-based hydrogels. *Biomaterials*, **2005**, 26, 4707-16	15.6	62
108	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	2.5	59
107	An improved method for preparing glutaraldehyde cross-linked chitosan–poly(vinyl alcohol) microparticles. *Polymer Bulletin*, **2013**, 70, 549-561	2.4	54
106	Single electron transfer–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	2.5	50
105	Synthesis, characterization, and relaxivity of two linear Gd(DTPA)-polymer conjugates. *Bioconjugate Chemistry*, **2001**, 12, 170-7	6.3	50
104	Processability and characterization of poly(vinyl chloride)-b-poly(n-butyl acrylate)-b-poly(vinyl chloride) prepared by living radical polymerization of vinyl chloride. Comparison with a flexible commercial resin formulation prepared with PVC and dioctyl phthalate. *Journal of Vinyl and Additive Technology*, **2006**, 12, 156-165	2	45
103	Photocrosslinkable biodegradable responsive hydrogels as drug delivery systems. *International Journal of Biological Macromolecules*, **2011**, 49, 948-54	7.9	44
102	Surface modification of a thermoplastic polyurethane by low-pressure plasma treatment to improve hydrophilicity. *Journal of Applied Polymer Science*, **2011**, 122, 2302-2308	2.9	44
101	Influence of Aloe vera on water absorption and enzymatic in vitro degradation of alginate hydrogel films. *Carbohydrate Polymers*, **2013**, 98, 311-20	10.3	43
100	Development of a biodegradable bioadhesive containing urethane groups. *Journal of Materials Science: Materials in Medicine*, **2008**, 19, 111-20	4.5	43
99	Controlled release gelatin hydrogels and lyophilisates with potential application as ocular inserts. *Biomedical Materials (Bristol)*, **2007**, 2, 241-9	3.5	42
98	Solubility of Irgacure® 2959 photoinitiator in supercritical carbon dioxide: Experimental determination and correlation. *Journal of Supercritical Fluids*, **2008**, 45, 272-281	4.2	41
97	Tailoring the properties of gelatin films for drug delivery applications: influence of the chemical cross-linking method. *International Journal of Biological Macromolecules*, **2014**, 70, 10-9	7.9	39
96	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	2.6	39
95	Ocular injectable formulation assessment for oxidized dextran-based hydrogels. *Acta Biomaterialia*, **2009**, 5, 1948-55	10.8	38
94	Experimental Determination and Correlation of Artemisinin's Solubility in Supercritical Carbon Dioxide. *Journal of Chemical & Engineering Data*, **2006**, 51, 1097-1104	2.8	37
93	Preparation and characterization of flurbiprofen-loaded poly(3-hydroxybutyrate-co-3-hydroxyvalerate) microspheres. *Journal of Microencapsulation*, **2008**, 25, 170-8	3.4	36

92	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, 371-7	6	35
91	Photocrosslinkable starch-based polymers for ophthalmologic drug delivery. *International Journal of Biological Macromolecules*, **2008**, 43, 325-32	7.9	33
90	Influence of the isomeric structures of butyl acrylate on its single-electron transfer-degenerative chain transfer living radical polymerization in water Catalyzed by Na2S2O4. *Journal of Polymer Science Part A*, **2008**, 46, 6542-6551	2.5	33
89	Structural analysis of dextran-based hydrogels obtained chemoenzymatically. *Journal of Biomedical Materials Research - Part B Applied Biomaterials*, **2006**, 77, 55-64	3.5	33
88	Impregnation of an intraocular lens for ophthalmic drug delivery. *Current Drug Delivery*, **2008**, 5, 102-7	3.2	32
87	Suitability of gamma irradiated chitosan based membranes as matrix in drug release system. *International Journal of Pharmaceutics*, **2010**, 395, 142-6	6.5	29
86	Lipase immobilisation on to polymeric membranes. *Biotechnology Letters*, **1999**, 13, 403-409		29
85	Synthesis of poly(2-methoxyethyl acrylate) by single electron transfer□degenerative transfer living radical polymerization catalyzed by Na2S2O4 in water. *Journal of Polymer Science Part A*, **2009**, 47, 4454-4463	2.5	28
84	Improving polymeric surfaces for biomedical applications: a review **2015**, 12, 463-475		27
83	Synthesis of poly(ethyl acrylate) by single electron transfer-degenerative chain transfer living radical polymerization in water catalyzed by Na2S2O4. *Journal of Polymer Science Part A*, **2008**, 46, 421-432	2.5	26
82	The immobilization of enzymes onto hydrolyzed polyethylene-g-co-2-HEMA. *Journal of Applied Polymer Science*, **1988**, 35, 135-144	2.9	26
81	Enzymatic synthesis of inulin-containing hydrogels. *Biomacromolecules*, **2002**, 3, 333-41	6.9	24
80	Solubility of Diflunisal in Supercritical Carbon Dioxide. *Journal of Chemical & Engineering Data*, **2008**, 53, 1990-1995	2.8	23
79	Experimental (IR/Raman and 1H/13C NMR) and theoretical (DFT) studies of the preferential conformations adopted by L-lactic acid oligomers and poly(L-lactic acid) homopolymer. *Journal of Physical Chemistry B*, **2012**, 116, 9-21	3.4	22
78	The immobilizaton of enzymes, bovine serum albumin, and phenylpropylamine to poly(acrylic acid)-polyethylene-based copolymers. *Biotechnology and Bioengineering*, **1982**, 24, 1371-87	4.9	22
77	Antibacterial layer-by-layer coatings to control drug release from soft contact lenses material. *International Journal of Pharmaceutics*, **2018**, 553, 186-200	6.5	22
76	Photocurable bioadhesive based on lactic acid. *Materials Science and Engineering C*, **2016**, 58, 601-9	8.3	21
75	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	3.9	21

74	Covalent binding of urease on ammonium-selective potentiometric membranes. *Biosensors and Bioelectronics*, **1992**, 7, 645-52	11.8	21
73	Design and characterization of bi-soft segmented polyurethane microparticles for biomedical application. *Colloids and Surfaces B: Biointerfaces*, **2011**, 88, 477-82	6	20
72	Cellulose Derivatives Membranes as Supports for Immobilisation of Enzymes. *Cellulose*, **1998**, 5, 299-308	5.5	20
71	In vitro and in vivo evaluation of an intraocular implant for glaucoma treatment. *International Journal of Pharmaceutics*, **2011**, 415, 73-82	6.5	19
70	An electrochemical bienzyme membrane sensor for free cholesterol. *Bioelectrochemistry*, **1992**, 28, 105-115		19
69	Preparation of gentamicin sulfate eluting fiber mats by emulsion and by suspension electrospinning. *Materials Science and Engineering C*, **2019**, 94, 86-93	8.3	19
68	New drug-eluting lenses to be applied as bandages after keratoprosthesis implantation. *International Journal of Pharmaceutics*, **2014**, 477, 218-26	6.5	18
67	Improved drug loading/release capacities of commercial contact lenses obtained by supercritical fluid assisted molecular imprinting methods. *Journal of Controlled Release*, **2010**, 148, e102-4	11.7	18
66	Thermal Characterization of Chitosan-Grafted Membranes to be Used as Wound Dressings. *Journal of Carbohydrate Chemistry*, **2006**, 25, 233-251	1.7	18
65	Grafting of selected presynthesized macromonomers onto various dispersions of silica particles. *Journal of Applied Polymer Science*, **2002**, 85, 1287-1296	2.9	18
64	Poly(dimethyl siloxane) surface modification with biosurfactants isolated from probiotic strains. *Journal of Biomedical Materials Research - Part A*, **2011**, 98, 535-43	5.4	17
63	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, 173-82	2.5	17
62	Behaviour of catalase immobilised on poly(acrylonitrile)-g.co-hydroxyethyl methacrylate when used in a continuous system. *Polymer International*, **1995**, 38, 269-275	3.3	17
61	Study of an enzyme coupled system for the development of fibre optical bilirubin sensors. *Biosensors and Bioelectronics*, **1996**, 11, 347-54	11.8	17
60	Synthesis of high glass transition temperature copolymers based on poly(vinyl chloride) via single electron transfer□degenerative chain transfer mediated living radical polymerization (SET-DTLRP) of vinyl chloride in water. *Journal of Polymer Science Part A*, **2009**, 47, 7021-7031	2.5	16
59	Immobilization of BSA, enzymes and cells of Bacillus stearothermophilus onto cellulose, polygalacturonic acid and starch based graft copolymers containing maleic anhydride. *Biotechnology and Bioengineering*, **1986**, 28, 51-7	4.9	16
58	Exquisite regioselectivity and increased transesterification activity of an immobilized Bacillus subtilis protease. *Biotechnology Progress*, **2002**, 18, 986-93	2.8	15
57	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	6	14

56	Polyurethane-based microparticles: formulation and influence of processes variables on its characteristics. *Journal of Microencapsulation*, **2008**, 25, 154-69	3.4	14
55	Immobilisation of cardosin A in chitosan sponges as a novel implant for drug delivery. *Current Drug Discovery Technologies*, **2005**, 2, 231-8	1.5	14
54	A poly(□caprolactone) device for sustained release of an anti-glaucoma drug. *Biomedical Materials (Bristol)*, **2011**, 6, 025003	3.5	13
53	Synthesis and characterization of a poly(ethylene glycol) prepolymer to be applied as a bioadhesive. *Journal of Applied Polymer Science*, **2007**, 105, 593-601	2.9	13
52	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	2.9	13
51	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	2.1	13
50	Eugenol-loaded microspheres incorporated into textile substrates. *Cellulose*, **2020**, 27, 4109-4121	5.5	12
49	Synthesis of a dextran based thermo-sensitive drug delivery system by gamma irradiation. *International Journal of Biological Macromolecules*, **2013**, 61, 150-5	7.9	12
48	Cotton gauze bandage: a support for protease immobilization for use in biomedical applications. *BJPS: Brazilian Journal of Pharmaceutical Sciences*, **2007**, 43, 535-542		12
47	In situ forming chitosan hydrogels: Preliminary evaluation of the in vivo inflammatory response. *Materials Science and Engineering C*, **2017**, 75, 279-285	8.3	11
46	Novel poly(ester amide)s from glycine and L-lactic acid by an easy and cost-effective synthesis. *Polymer International*, **2013**, 62, 736-743	3.3	11
45	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, 2017-26	4.5	10
44	Poly(ester amide)s based on (L)-lactic acid oligomers and □amino acids: influence of the □amino acid side chain in the poly(ester amide)s properties. *Journal of Biomaterials Science, Polymer Edition*, **2013**, 24, 1391-409	3.5	10
43	Immobilization of drugs for glaucoma treatment. *Journal of Materials Science: Materials in Medicine*, **2007**, 18, 2309-17	4.5	10
42	Biocatalytic Polytransesterification of Inulin with Divinyladipate. *Chemistry of Materials*, **2002**, 14, 4009-4011	9.6	10
41	Study of the thermal stability and enzymatic activity of an immobilised enzymatic system for the bilirubin oxidation. *Biomaterials*, **1999**, 20, 757-63	15.6	10
40	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, 139-52	3.5	9
39	Poly(vinyl chloride) and wood flour press mould composites: New bonding strategies. *Journal of Applied Polymer Science*, **2009**, 113, 2727-2738	2.9	9

38	Immobilization of Lipase from Mucor Miehei Onto Poly (Ethylene) Based Graft Copolymers. *Biocatalysis*, **1992**, 6, 223-234		9
37	Immobilization of □chymotrypsin onto hydrolyzed poly(ethylene)-g-co-hydroxyethyl methacrylate. *Journal of Applied Polymer Science*, **1990**, 41, 1629-1639	2.9	9
36	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	2.4	9
35	Ketotifen controlled release from cellulose acetate propionate and cellulose acetate butyrate membranes. *Journal of Materials Science: Materials in Medicine*, **2008**, 19, 677-82	4.5	8
34	Imprinted hydrogels with LbL coating for dual drug release from soft contact lenses materials. *Materials Science and Engineering C*, **2021**, 120, 111687	8.3	8
33	VEGF-functionalized dextran has longer intracellular bioactivity than VEGF in endothelial cells. *Biomacromolecules*, **2012**, 13, 2906-16	6.9	7
32	Bulk polytransesterification of L-lactic acid esters: An alternative route to synthesize poly(lactic acid). *Journal of Applied Polymer Science*, **2012**, 125, E283-E289	2.9	7
31	Role of guanidyl moiety in the insertion of arginine and Nalpha-benzoyl-L-argininate ethyl ester chloride in lipid membranes. *Journal of Physical Chemistry B*, **2010**, 114, 5946-52	3.4	7
30	Surface modification of thermoplastic polyurethane in order to enhance reactivity and avoid cell adhesion. *Colloid and Polymer Science*, **2009**, 287, 1469-1474	2.4	7
29	Synthesis of N-Octyl Oleate with Lipase from Mucor miehei Immobilized onto Polyethylene Based Graft Copolymers. *Biocatalysis*, **1994**, 9, 157-167		7
28	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	7
27	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	2.4	6
26	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	2.9	6
25	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	2.9	6
24	Characterization of cellulose derivatives □Relevance to sensor development. *Cellulose*, **1995**, 2, 243-263	5.5	6
23	Engineering star-shaped lactic acid oligomers to develop novel functional adhesives. *Journal of Materials Research*, **2018**, 33, 1463-1474	2.5	5
22	1H NMR spectroscopic and quantum chemical studies on a poly(ester amide) model compound: Nalpha-benzoyl-L-argininate ethyl ester chloride. Structural preferences for the isolated molecule and in solution. *Journal of Physical Chemistry B*, **2010**, 114, 6156-64	3.4	5
21	Fluorinated additives for stain-resistant matt latex paints **2009**, 6, 483-491		5

20	Microcapsules prepared from starch derivatives. *Journal of Materials Science: Materials in Medicine*, **1997**, 8, 321-3	4.5	5
19	Improving lactic acid melt polycondensation: The role of co-catalyst. *Journal of Applied Polymer Science*, **2012**, 128, n/a-n/a	2.9	4
18	Poly(vinyl chloride)-b-poly(hydroxypropyl acrylate)-b-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	2	4
17	Study of N□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	3.9	4
16	New approaches in drug delivery systems: application for diabetes treatment. *Infectious Disorders - Drug Targets*, **2008**, 8, 119-28	1.1	4
15	Development of semitransparent wood-polymer composites. *Journal of Vinyl and Additive Technology*, **2012**, 18, 95-104	2	2
14	Modification of poly(3-hydroxybutyrate)-co-poly(3-hydroxyvalerate) with natural rubber. *Journal of Applied Polymer Science*, **2009**, 116, n/a-n/a	2.9	2
13	Surface Area Characterization of Several Woodpulps by Humidity Adsorption. *Holzforschung*, **2002**, 56, 176-178	2	2
12	Membranes of Cellulose Derivatives as Supports for Immobilization of Enzymes. *ACS Symposium Series*, **1999**, 228-234	0.4	2
11	Thermal-responsive hydrogels for sublingual administration of Ondansetron□*International Journal of Polymeric Materials and Polymeric Biomaterials*, **2018**, 67, 765-775	3	1
10	Modeling the drug release from ionic and covalent co-cross-linked chitosan hydrogels. *Computer Aided Chemical Engineering*, **2017**, 1021-1026	0.6	1
9	Surface Area Determinations in Woodpulps by Humidity Adsorption. *Holzforschung*, **2001**, 55, 324-327	2	1
8	The immobilisation of bovine serum albumin, acid phosphatase, glucose oxidase and phenyl propylamine to maleic anhydride block copolymers. *Polymer Bulletin*, **1985**, 14, 199-206	2.4	1
7	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*,1-13	3	1
6	The X-ray irradiation of modified silica beads in the presence of hydroxyethyl methacrylate □graft vs. homopolymerization. *Macromolecular Chemistry and Physics*, **2002**, 203, 1370-1376	2.6	0
5	An electrochemical bienzyme membrane sensor for free cholesterol. *Journal of Electroanalytical Chemistry*, **1992**, 343, 105-115	4.1	0
4	Modelling the Release of Moxifloxacin from Plasma Grafted Intraocular Lenses with Rotational Symmetric Numerical Framework. *Lecture Notes in Computer Science*, **2018**, 329-339	0.9	
3	Polymeric Materials in Ocular Drug Delivery Systems **2015**, 439-458		

2	Molecular Dynamics Study of Oligomer-Membrane Complexes with Biomedical Relevance. *Advanced Structured Materials*, **2013**, 55-67	0.6
1	Influence of albumin on mineralization of PMMA-based/glass composites. *Journal of Applied Biomaterials and Functional Materials*, **2012**, 10, 92-8	1.8