Humberto Palza

List of Publications by Year
in descending order

86 papers	3,300 citations	159525 30 h-index	161767 54 g-index
88 all docs	88 docs citations	88 times ranked	4519 citing authors

#	Article	IF	Citations
1	Antimicrobial Polymers with Metal Nanoparticles. International Journal of Molecular Sciences, 2015, 16, 2099-2116.	1.8	582
2	Polypropylene with embedded copper metal or copper oxide nanoparticles as a novel plastic antimicrobial agent. Letters in Applied Microbiology, 2011, 53, 50-54.	1.0	188
3	Electroactive Smart Polymers for Biomedical Applications. Materials, 2019, 12, 277.	1.3	141
4	Chondroinductive Alginate-Based Hydrogels Having Graphene Oxide for 3D Printed Scaffold Fabrication. ACS Applied Materials & Interfaces, 2020, 12, 4343-4357.	4.0	107
5	Solâ€“gel synthesis and <i>in vitro</i> bioactivity of copper and zinc-doped silicate bioactive glasses and glass-ceramics. Biomedical Materials (Bristol), 2015, 10, 025001.	1.7	103
6	3D Printing of Antimicrobial Alginate/Bacterial-Cellulose Composite Hydrogels by Incorporating Copper Nanostructures. ACS Biomaterials Science and Engineering, 2019, 5, 6290-6299.	2.6	88
7	Effect of comonomer type on the crystallization kinetics and crystalline structure of random isotactic propylene 1-alkene copolymers. Polymer, 2009, 50, 832-844.	1.8	86
8	Designing antimicrobial bioactive glass materials with embedded metal ions synthesized by the solâ€“gel method. Materials Science and Engineering C, 2013, 33, 3795-3801.	3.8	83
9	Toward Tailorâ€Made Biocide Materials Based on Poly(propylene)/Copper Nanoparticles. Macromolecular Rapid Communications, 2010, 31, 563-567.	2.0	82
10	Antimicrobial polymer composites with copper micro- and nanoparticles: Effect of particle size and polymer matrix. Journal of Bioactive and Compatible Polymers, 2015, 30, 366-380.	0.8	79
11	In situ antimicrobial behavior of materials with copper-based additives in a hospital environment. International Journal of Antimicrobial Agents, 2018, 51, 912-917.	1.1	74
12	Electrical behavior of polypropylene composites melt mixed with carbon-based particles: Effect of the kind of particle and annealing process. Composites Science and Technology, 2014, 99, 117-123.	3.8	71
13	Composites of polypropylene melt blended with synthesized silica nanoparticles. Composites Science and Technology, 2011, 71, 535-540.	3.8	69
14	Metallocenic Copolymers of Isotactic Propylene and 1-Octadecene: Crystalline Structure and Mechanical Behavior. Macromolecular Chemistry and Physics, 2005, 206, 1221-1230.	1.1	63
15	Metallocene copolymers of propene and 1-hexene: The influence of the comonomer content and thermal history on the structure and mechanical properties. Journal of Polymer Science, Part B: Polymer Physics, 2006, 44, 1253-1267.	2.4	62
16	Poly(lactic acid) composites based on graphene oxide particles with antibacterial behavior enhanced by electrical stimulus and biocompatibility. Journal of Biomedical Materials Research - Part A, 2018, 106, 1051-1060.	2.1	61
17	About the relevance of particle shape and graphene oxide on the behavior of direct absorption solar collectors using metal based nanofluids under different radiation intensities. Energy Conversion and Management, 2019, 181, 247-257.	4.4	57
18	PDLLA scaffolds with Cuâ€•and Znâ€doped bioactive glasses having multifunctional properties for bone regeneration. Journal of Biomedical Materials Research - Part A, 2017, 105, 746-756.	2.1	52

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19	Comonomer Length Influence on the Structure and Mechanical Response of Metallocenic Polypropylenic Materials. Macromolecular Chemistry and Physics, 2008, 209, 2259-2267.	1.1	45
20	Electroactive 3D Printed Scaffolds Based on Percolated Composites of Polycaprolactone with Thermally Reduced Graphene Oxide for Antibacterial and Tissue Engineering Applications. Nanomaterials, 2020, 10, 428.	1.9	44
21	Functionalization of Silica Nanoparticles for Polypropylene Nanocomposite Applications. Journal of Nanomaterials, 2012, 2012, 1-8.	1.5	41
22	Characterization of melt flow instabilities in polyethylene/carbon nanotube composites. Polymer, 2010, 51, 3753-3761.	1.8	40
23	Modifying the electrical behaviour of polypropylene/carbon nanotube composites by adding a second nanoparticle and by annealing processes. EXPRESS Polymer Letters, 2012, 6, 639-646.	1.1	40
24	Improving the Thermal Behavior of Poly(propylene) by Addition of Spherical Silica Nanoparticles. Macromolecular Materials and Engineering, 2010, 295, 899-905.	1.7	37
25	Novel antimicrobial polyethylene composites prepared by metallocenic <i>in situ</i> polymerization with TiO₂â€based nanoparticles. Journal of Polymer Science Part A, 2012, 50, 4055-4062.	2.5	36
26	Electrical, Thermal, and Mechanical Characterization of Poly(propylene)/Carbon Nanotube/Clay Hybrid Composite Materials. Macromolecular Materials and Engineering, 2012, 297, 474-480.	1.7	36
27	Cu/Al and Cu/Cr based layered double hydroxide nanoparticles as adsorption materials for water treatment. Journal of Industrial and Engineering Chemistry, 2018, 59, 134-140.	2.9	36
28	Effect of CaCO3 Nanoparticles on the Mechanical and Photo-Degradation Properties of LDPE. Molecules, 2019, 24, 126.	1.7	36
29	Polyethylene and poly(ethylene-co-1-octadecene) composites with TiO2 based nanoparticles by metallocenic â€œin situâ€•polymerization. Polymer, 2013, 54, 2690-2698.	1.8	35
30	Polymer Composites With Metal Nanoparticles. , 2019, , 249-286.		35
31	Polyethylene/graphene oxide composites toward multifunctional active packaging films. Composites Science and Technology, 2019, 184, 107888.	3.8	33
32	Synthesis of copper nanostructures on silica-based particles for antimicrobial organic coatings. Applied Surface Science, 2015, 357, 86-90.	3.1	31
33	Effect of starch nanoparticles on the crystallization kinetics and photodegradation of high density polyethylene. Composites Part B: Engineering, 2019, 174, 106979.	5.9	28
34	Spherulite Growth Rate in Polypropylene/Silica Nanoparticle Composites: Effect of Particle Morphology and Compatibilizer. Macromolecular Materials and Engineering, 2011, 296, 744-751.	1.7	25
35	Effect of carbon nanotubes on thermal pyrolysis of high density polyethylene and polypropylene. Polymer Degradation and Stability, 2015, 120, 122-134.	2.7	25
36	Novel magnetic CoFe2O4/layered double hydroxide nanocomposites for recoverable anionic adsorbents for water treatment. Applied Clay Science, 2019, 183, 105350.	2.6	25

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37	Superhydrophobic SLA 3D printed materials modified with nanoparticles biomimicking the hierarchical structure of a rice leaf. Science and Technology of Advanced Materials, 2022, 23, 300-321.	2.8	25
38	Review: Auxetic Polymer-Based Mechanical Metamaterials for Biomedical Applications. ACS Biomaterials Science and Engineering, 2022, 8, 2798-2824.	2.6	25
39	Polypropylene/clay nanocomposites: Effect of different clays and compatibilizers on their morphology. Journal of Applied Polymer Science, 2009, 112, 1278-1286.	1.3	23
40	Correlation between polyethylene topology and melt flow instabilities by determining in-situ pressure fluctuations and applying advanced data analysis. Polymer, 2010, 51, 522-534.	1.8	23
41	Catalytic degradation of polyethylene using nanosized ZSM-2 zeolite. Applied Catalysis A: General, 2010, 384, 186-191.	2.2	22
42	Role of the Catalyst in the Pyrolysis of Polyolefin Mixtures and Used Tires. Energy & Fuels, 2017, 31, 3111-3120.	2.5	22
43	Effect of the Oxidation Degree of Graphene Oxides on their Adsorption, Flocculation, and Antibacterial Behavior. Industrial & Engineering Chemistry Research, 2018, 57, 15722-15730.	1.8	22
44	Encapsulation of specific Salmonella Enteritidis phage f3Î±SE on alginate-spheres as a method for protection and dosification. Electronic Journal of Biotechnology, 2018, 31, 57-60.	1.2	21
45	A multifunctional bi-phasic graphene oxide/chitosan paper for water treatment. Separation and Purification Technology, 2020, 235, 116181.	3.9	21
46	Decomposition of Dinuclear Manganese Complexes for the Preparation of Nanostructured Oxide Materials. Inorganic Chemistry, 2008, 47, 8306-8314.	1.9	19
47	In situ Pressure Fluctuations of Polymer Melt Flow Instabilities: Experimental Evidence about their Origin and Dynamics. Macromolecular Rapid Communications, 2009, 30, 1799-1804.	2.0	19
48	Influence of Organically-Modified Montmorillonite and Synthesized Layered Silica Nanoparticles on the Properties of Polypropylene and Polyamide-6 Nanocomposites. Polymers, 2016, 8, 386.	2.0	19
49	Effect of Cu- and Zn-Doped Bioactive Glasses on the In Vitro Bioactivity, Mechanical and Degradation Behavior of Biodegradable PDLLA Scaffolds. Materials, 2020, 13, 2908.	1.3	18
50	New way to characterize the percolation threshold of polyethylene and carbon nanotube polymer composites using Fourier transform (FT) rheology. Korea Australia Rheology Journal, 2014, 26, 319-326.	0.7	17
51	Effect of copper nanoparticles on the cell viability of polymer composites. International Journal of Polymeric Materials and Polymeric Biomaterials, 2017, 66, 462-468.	1.8	17
52	Li-doped bioglassÂ® 45S5 for potential treatment of prevalent oral diseases. Journal of Dentistry, 2021, 105, 103575.	1.7	15
53	Synthetic layered and tube-like silica nanoparticles as novel supports for metallocene catalysts in ethylene polymerization. Applied Catalysis A: General, 2011, 407, 181-187.	2.2	14
54	Effect of morphology on the permeability, mechanical and thermal properties of polypropylene/SiO₂ nanocomposites. Polymer International, 2015, 64, 1245-1251.	1.6	14

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55	Cytocompatible drug delivery hydrogels based on carboxymethylagarose/chitosan pH-responsive polyelectrolyte complexes. International Journal of Biological Macromolecules, 2022, 199, 96-107.	3.6	14
56	Effect of hydrothermally synthesized titanium nanotubes on the behaviour of polypropylene for antimicrobial applications. Polymer International, 2015, 64, 1442-1450.	1.6	13
57	Improving the metal ion release from nanoparticles embedded in a polypropylene matrix for antimicrobial applications. Journal of Applied Polymer Science, 2015, 132, .	1.3	13
58	Results coming from homogeneous and supported metallocene catalysts in the homo- and copolymerization of olefins. Macromolecular Symposia, 2002, 189, 111-126.	0.4	12
59	A study of the synthesis and characterization of ethylene/dicyclopentadiene copolymers using a metallocene catalyst. European Polymer Journal, 2009, 45, 102-106.	2.6	12
60	Effect of Carbon-Based Particles on the Mechanical Behavior of Isotactic Poly(propylene)s. Macromolecular Materials and Engineering, 2016, 301, 429-440.	1.7	12
61	Antibacterial Silver Nanoparticles Supported on Graphene Oxide with Reduced Cytotoxicity. Jom, 2019, 71, 3698-3705.	0.9	12
62	Effect of bioglass nanoparticles on the properties and bioactivity of poly(lactic acid) films. Journal of Biomedical Materials Research - Part A, 2020, 108, 2032-2043.	2.1	12
63	Effect of graphene oxide on the <scp>pHâ€•responsive</scp> drug release from supramolecular hydrogels. Journal of Applied Polymer Science, 2022, 139, 51420.	1.3	12
64	Shape fidelity, mechanical and biological performance of 3D printed polycaprolactone-bioactive glass composite scaffolds. Materials Science and Engineering C, 2022, 134, 112540.	3.8	12
65	Effect of the Hierarchical Structure in Poly(propylene)/Clay Composites on their Thermal Stability: From Singleâ€•to Multiâ€Step Degradation Processes. Macromolecular Materials and Engineering, 2010, 295, 48-57.	1.7	11
66	Morphological changes of carbon nanotubes in polyethylene matrices under oscillatory tests as determined by dielectrical measurements. Composites Science and Technology, 2011, 71, 1361-1366.	3.8	11
67	Nanoparticle reinforcement in elastomeric polyethylene composites under tensile tests. Composites Part B: Engineering, 2016, 107, 97-105.	5.9	10
68	Polypropylene in the melt state as a medium for <i>in situ</i> synthesis of copper nanoparticles. AICHE Journal, 2014, 60, 3406-3411.	1.8	9
69	Elastomeric ethylene copolymers with carbon nanostructures having tailored strain sensor behavior and their interpretation based on the excluded volume theory. Polymer International, 2016, 65, 1441-1448.	1.6	9
70	Nonisothermal crystallization and melting behavior of syndiotactic polypropylenes of different microstructure. Journal of Polymer Science, Part B: Polymer Physics, 2008, 46, 798-806.	2.4	8
71	Antibacterial Carbon Nanotubes by Impregnation with Copper Nanostructures. Jom, 2017, 69, 1319-1324.	0.9	8
72	Anti-adhesion and antibacterial activity of silver nanoparticles and graphene oxide-silver nanoparticle composites. Revista Materia, 2020, 25, .	0.1	8

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73	Dynamic Model of the Copolymerization of Propylene and 1-Hexene with the Me2Si(2-Me-Ind)2ZrCl2 Catalytic System: Effect of 1-Hexene Concentration. Polymer-Plastics Technology and Engineering, 2006, 45, 1233-1241.	1.9	7
74	Effect of Comonomer Content on the Behavior of Propylene Copolymer/Compatibilizer/Clay Nanocomposites. Macromolecular Materials and Engineering, 2010, 295, 492-501.	1.7	7
75	Effect of Shortâ€Chain Branching on the Melt Behavior of Polypropylene Under Smallâ€Amplitude Oscillatory Shear Conditions. Macromolecular Chemistry and Physics, 2013, 214, 107-116.	1.1	6
76	About the relevance of waviness, agglomeration, and strain on the electrical behavior of polymer composites filled with carbon nanotubes evaluated by a Monte-Carlo simulation. Materials Research Express, 2018, 5, 015044.	0.8	6
77	Shape memory composites based on a thermoplastic elastomer polyethylene with carbon nanostructures stimulated by heat and solar radiation having piezoresistive behavior. Polymer International, 2018, 67, 1046-1053.	1.6	6
78	An Overview for the Design of Antimicrobial Polymers: From Standard Antibiotic-Release Systems to Topographical and Smart Materials. Annual Review of Materials Research, 2022, 52, 1-24.	4.3	6
79	Effect of the polymer microstructure on the behavior of syndiotactic polypropylene/organophilic layered silicate composites. Journal of Applied Polymer Science, 2012, 124, 2601-2609.	1.3	5
80	Dynamic Model of the Homopolymerization of Propylene with the Me₂Si(2-Me-Ind)₂ZrCl Catalyst: The Effect of Reaction Variables. Polymer-Plastics Technology and Engineering, 2006, 45, 85-94.	1.9	4
81	Effect of thermally reduced graphene oxides obtained at different temperatures on the barrier and mechanical properties of polypropylene/TRGO and polyamideâ€6/TRGO nanocomposites. Polymer Composites, 2019, 40, E1746-E1756.	2.3	4
82	Effect of Polymer Structure and Incorporation of Nanoparticles on the Behavior of Syndiotactic Polypropylenes. Macromolecular Chemistry and Physics, 2013, 214, 2567-2578.	1.1	3
83	Nanostructured Manganese Oxide Particles from Coordination Complex Decomposition and Their Catalytic Properties for Ethanol Oxidation. Journal of Nanoscience and Nanotechnology, 2012, 12, 8087-8093.	0.9	2
84	Mechanical properties and morphological characteristics of ARALL reinforced with TRGO doped epoxy resin. Revista Materia, 2018, 23, .	0.1	1
85	Mechanical properties and morphological characteristics of ARALL reinforced with TRGO doped epoxy resin. Revista Materia, 2018, 23, .	0.1	1
86	Preparation of osteoinductive â€“ Antimicrobial nanocomposite scaffolds based on poly (D,L-lactide-co-glycolide) modified with copper â€“ Doped bioactive glass nanoparticles. Polymers and Polymer Composites, 2022, 30, 096739112210982.	1.0	1