Carlos Alberto Avila-Orta

List of Publications by Year
in descending order

58 papers	973 citations	471371 17 h-index	477173 29 g-index
59 all docs	59 docs citations	59 times ranked	1329 citing authors

#	Article	IF	Citations
1	Synthesis of Copper Nanoparticles by Thermal Decomposition and Their Antimicrobial Properties. Journal of Nanomaterials, 2014, 2014, 1-5.	1.5	128
2	On the nature of multiple melting in poly(ethylene terephthalate) (PET) and its copolymers with cyclohexylene dimethylene terephthalate (PET/CT). Polymer, 2003, 44, 1527-1535.	1.8	64
3	Surface modification of carbon nanotubes with ethylene glycol plasma. Carbon, 2009, 47, 1916-1921.	5.4	63
4	Combined effect of shear and fibrous fillers on orientation-induced crystallization in discontinuous aramid fiber/isotactic polypropylene composites. Polymer, 2008, 49, 295-302.	1.8	56
5	Morphological features and melting behavior of nanocomposites based on isotactic polypropylene and multiwalled carbon nanotubes. Journal of Applied Polymer Science, 2007, 106, 2640-2647.	1.3	46
6	Oxidation of Copper Nanoparticles Protected with Different Coatings and Stored under Ambient Conditions. Journal of Nanomaterials, 2018, 2018, 1-8.	1.5	42
7	Molecular Weight and Crystallization Temperature Effects on Poly(ethylene terephthalate) (PET) Homopolymers, an Isothermal Crystallization Analysis. Polymers, 2014, 6, 583-600.	2.0	41
8	Enhanced Antibacterial Activity of Melt Processed Poly(propylene) Ag and Cu Nanocomposites by Argon Plasma Treatment. Plasma Processes and Polymers, 2014, 11, 353-365.	1.6	37
9	Carbon nanotube surface-induced crystallization of polyethylene terephthalate (PET). Polymer, 2014, 55, 642-650.	1.8	36
10	Synthesis of Copper Nanoparticles Coated with Nitrogen Ligands. Journal of Nanomaterials, 2014, 2014, 1-8.	1.5	28
11	Morphology, Thermal Stability, and Electrical Conductivity of Polymer Nanocomposites of Isotactic Polypropylene/Multi-Walled Carbon Nanotubes. International Journal of Polymeric Materials and Polymeric Biomaterials, 2013, 62, 635-641.	1.8	26
12	Melt-Mixed Thermoplastic Nanocomposite Containing Carbon Nanotubes and Titanium Dioxide for Flame Retardancy Applications. Polymers, 2019, 11, 1204.	2.0	25
13	Ultrasound-Assist Extrusion Methods for the Fabrication of Polymer Nanocomposites Based on Polypropylene/Multi-Wall Carbon Nanotubes. Materials, 2015, 8, 7900-7912.	1.3	24
14	Effect of Plasma Modification of Copper Nanoparticles on their Antibacterial Properties. Plasma Processes and Polymers, 2014, 11, 685-693.	1.6	21
15	Surface Modification of Graphene Nanoplatelets by Organic Acids and Ultrasonic Radiation for Enhance Uremic Toxins Adsorption. Materials, 2019, 12, 715.	1.3	20
16	Graphene Nanoplatelets Modified with Amino-Groups by Ultrasonic Radiation of Variable Frequency for Potential Adsorption of Uremic Toxins. Nanomaterials, 2019, 9, 1261.	1.9	19
17	Effect of Modified Hexagonal Boron Nitride Nanoparticles on the Emulsion Stability, Viscosity and Electrochemical Behavior of Nanostructured Acrylic Coatings for the Corrosion Protection of AISI 304 Stainless Steel. Coatings, 2020, 10, 488.	1.2	19
18	Antimicrobial Property of Polypropylene Composites and Functionalized Copper Nanoparticles. Polymers, 2021, 13, 1694.	2.0	18

#	Article	IF	Citations
19	Structural and morphological studies on the deformation behavior of polypropylene/multiâ€walled carbon nanotubes nanocomposites prepared through ultrasoundâ€assisted melt extrusion process. Journal of Polymer Science, Part B: Polymer Physics, 2015, 53, 475-491.	2.4	16
20	Zeolite 13X modification with gamma-aminobutyric acid (GABA). Microporous and Mesoporous Materials, 2020, 295, 109941.	2.2	16
21	Chemical Modification of Carbon Nanofibers with Plasma of Acrylic Acid. Plasma Processes and Polymers, 2013, 10, 627-633.	1.6	15
22	Synthesis and characterization of magnetic nanoparticles Zn1-xMgxFe2O4 with partial substitution of Mg2+ (x= 0.0, 0.25, 0.5, 0.75 and 1.0) for adsorption of uremic toxins. Ceramics International, 2020, 46, 27913-27921.	2.3	15
23	Synthesis of Nylon 6/Modified Carbon Black Nanocomposites for Application in Uric Acid Adsorption. Materials, 2020, 13, 5173.	1.3	13
24	Synthesis and Thermomechanical Characterization of Nylon 6/Cu Nanocomposites Produced by an Ultrasound-Assisted Extrusion Method. Advances in Materials Science and Engineering, 2018, 2018, 1-10.	1.0	11
25	Enhancement of the thermal conductivity of polypropylene with low loadings of CuAg alloy nanoparticles and graphene nanoplatelets. Materials Today Communications, 2019, 21, 100695.	0.9	11
26	Microwave-assisted esterification step of poly(ethylene terephthalate) (PET) synthesis through ethylene glycol and terephthalic acid. Polymer Bulletin, 2019, 76, 2931-2944.	1.7	11
27	Nanocomposite PLA/C20A Nanoclay by Ultrasound-Assisted Melt Extrusion for Adsorption of Uremic Toxins and Methylene Blue Dye. Nanomaterials, 2021, 11, 2477.	1.9	11
28	Green Flame-Retardant Composites Based on PP/TiO2/Lignin Obtained by Melt-Mixing Extrusion. Polymers, 2022, 14, 1300.	2.0	11
29	Nanocomposites based on plasma-polymerized carbon nanotubes and Nylon-6. Polymer Journal, 2012, 44, 952-958.	1.3	9
30	Aniline-Modified Polypropylene as a Compatibilizer in Polypropylene Carbon Nanotube Composites. Polymer-Plastics Technology and Engineering, 2018, 57, 1360-1366.	1.9	9
31	Pigmentation and Degradative Activity of TiO2 on Polyethylene Films Using Masterbatches Fabricated Using Variable-Frequency Ultrasound-Assisted Melt-Extrusion. Materials, 2020, 13, 3855.	1.3	9
32	Composites based on nylon 6/clinoptilolite by ultrasound-assisted extrusion for enhanced flame retardant and mechanical properties. Polymer Bulletin, 2022, 79, 1803-1819.	1.7	9
33	Surface Modification of Carbon Nanofibers and Graphene Platelets Mixtures by Plasma Polymerization of Propylene. Journal of Nanomaterials, 2017, 2017, 1-10.	1.5	8
34	Non-Woven Fabrics Based on Nanocomposite Nylon 6/ZnO Obtained by Ultrasound-Assisted Extrusion for Improved Antimicrobial and Adsorption Methylene Blue Dye Properties. Polymers, 2021, 13, 1888.	2.0	8
35	Metamaterial Behavior of Polymer Nanocomposites Based on Polypropylene/Multi-Walled Carbon Nanotubes Fabricated by Means of Ultrasound-Assisted Extrusion. Materials, 2016, 9, 923.	1.3	7
36	Ultrasound-Assisted Melt Extrusion of Polymer Nanocomposites. , 0, , .		7

#	Article	IF	Citations
37	Non-woven fabrics based on Nylon 6/carbon black-graphene nanoplatelets obtained by melt-blowing for adsorption of urea, uric acid and creatinine. Materials Letters, 2022, 320, 132382.	1.3	7
38	Preparation of Polymer Nanocomposites with Enhanced Antimicrobial Properties. Materials Research Society Symposia Proceedings, 2012, 1479, 57-62.	0.1	6
39	Effect of MWNTs concentration and cooling rate on the morphological, structural, and electrical properties of nonâ€isothermally crystallized PEN/MWNT nanocomposites. Journal of Applied Polymer Science, 2015, 132, .	1.3	6
40	Transparent Low Electrostatic Charge Films Based on Carbon Nanotubes and Polypropylene. Homopolymer Cast Films. Polymers, 2018, 10, 55.	2.0	6
41	Nanocomposite and biodegradable polymers applied to technical textiles. DYNA (Colombia), 2019, 86, 288-299.	0.2	5
42	Relationship between the passivation of TiO₂ particles and LLDPE photodegradation: a comparison between bulk and surface impacts. Journal of Applied Polymer Science, 2019, 136, 47026.	1.3	4
43	Influence of Ethylene Plasma Treatment of Agave Fiber on the Cellular Morphology and Compressive Properties of Low-Density Polyethylene/Ethylene Vinyl Acetate Copolymer/Agave Fiber Composite Foams. International Journal of Polymer Science, 2021, 2021, 1-13.	1.2	4
44	Numerical Study Using Microstructure Based Finite Element Modeling of the Onset of Convective Heat Transfer in Closed-Cell Polymeric Foam. Polymers, 2021, 13, 1769.	2.0	4
45	Ultrasound-Assisted Surface Modification of MWCNT Using Organic Acids. Materials, 2021, 14, 72.	1.3	4
46	Morphological Study and Dielectric Behavior of Nonisothermally Crystallized Poly(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 387 Tc 2016, 1-9.	1.5	3
47	Plasmaâ€modified CNFs, GPs, and their mixtures for enhanced polypropylene thermal conductivity. Journal of Applied Polymer Science, 2020, 137, 49138.	1.3	3
48	Non-isothermal crystallization behavior of isotactic polypropylene/copper nanocomposites. Journal of Thermal Analysis and Calorimetry, 2021, 143, 2919-2932.	2.0	3
49	Insights on the Molecular Behavior of Polypropylene in the Process of Ultrasonic Injection Molding. Polymers, 2021, 13, 4010.	2.0	3
50	Computational Study in Bottom Gas Injection Using the Conservative Level Set Method. Processes, 2020, 8, 1643.	1.3	2
51	Preparation and Characterization of Electrically Conductive Polymer Nanocomposites with Different Carbon Nanoparticles. , 0, , .		2
52	Surface Modification of nTiO2/Ag Hybrid Nanoparticles Using Microwave-Assisted Polymerization in the Presence of Bis(2-hydroxyethyl) Terephthalate. Journal of Nanomaterials, 2017, 2017, 1-9.	1.5	1
53	Effect of Sorbitol Templates on the Preferential Crystallographic Growth of Isotactic Polypropylene Wax. Crystals, 2018, 8, 59.	1.0	1
54	Back Cover: Plasma Process. Polym. 4â•2014. Plasma Processes and Polymers, 2014, 11, 401-401.	1.6	0

#	Article	IF	Citations
55	Trends on Synthesis of Polymeric Nanocomposites Based on Green Chemistry. , 2021, , 1-31.		0
56	Trends on Synthesis of Polymeric Nanocomposites Based on Green Chemistry. , 2021, , 1111-1141.		0
57	Polymer Composites: Smart Synthetic Fibers Approach in Energy and Environmental Care. , 2021, , 3637-3661.		0
58	NanotecnologÃa aplicada en calentadores solares: un beneficio para la sociedad. Revista Digital Universitaria, 2022, 23, .	0.0	0