List of Publications by Year in descending order

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LUIS CAREDO

#	Article	IF	CITATIONS
1	Optimization of Biodegradable Nanocomposites Based on aPLA/PCL Blends for Food Packaging Applications. Macromolecular Symposia, 2006, 233, 191-197.	0.4	251
2	Improving packaged food quality and safety. Part 2: Nanocomposites. Food Additives and Contaminants, 2005, 22, 994-998.	2.0	188
3	Development of EVOH-kaolinite nanocomposites. Polymer, 2004, 45, 5233-5238.	1.8	151
4	Increment of specific heat capacity of solar salt with SiO2 nanoparticles. Nanoscale Research Letters, 2014, 9, 582.	3.1	141
5	Biocomposites of different lignocellulosic wastes for sustainable food packaging applications. Composites Part B: Engineering, 2018, 145, 215-225.	5.9	122
6	Comparison of flame sprayed Al2O3/TiO2 coatings: Their microstructure, mechanical properties and tribology behavior. Surface and Coatings Technology, 2006, 201, 1436-1443.	2.2	113
7	Antimicrobial nanocomposites and electrospun coatings based on poly(3â€hydroxybutyrateâ€ <i>co</i> â€3â€hydroxyvalerate) and copper oxide nanoparticles for active packaging and coating applications. Journal of Applied Polymer Science, 2018, 135, 45673.	1.3	95
8	Electrospun Antimicrobial Films of Poly(3-hydroxybutyrate-co-3-hydroxyvalerate) Containing Eugenol Essential Oil Encapsulated in Mesoporous Silica Nanoparticles. Nanomaterials, 2019, 9, 227.	1.9	85
9	Antibacterial and Barrier Properties of Gelatin Coated by Electrospun Polycaprolactone Ultrathin Fibers Containing Black Pepper Oleoresin of Interest in Active Food Biopackaging Applications. Nanomaterials, 2018, 8, 199.	1.9	68
10	Development of amorphous PLA-montmorillonite nanocomposites. Journal of Materials Science, 2005, 40, 1785-1788.	1.7	63
11	Preparation and Characterization of Electrospun Food Biopackaging Films of Poly(3-hydroxybutyrate-co-3-hydroxyvalerate) Derived From Fruit Pulp Biowaste. Frontiers in Sustainable Food Systems, 2018, 2, .	1.8	57
12	Melt processability, characterization, and antibacterial activity of compression-molded green composite sheets made of poly(3-hydroxybutyrate-co-3-hydroxyvalerate) reinforced with coconut fibers impregnated with oregano essential oil. Food Packaging and Shelf Life, 2018, 17, 39-49.	3.3	56
13	Study of the degradation of hybrid sol–gel coatings in aqueous medium. Progress in Organic Coatings, 2014, 77, 1799-1806.	1.9	53
14	On the Use of the Electrospinning Coating Technique to Produce Antimicrobial Polyhydroxyalkanoate Materials Containing In Situ-Stabilized Silver Nanoparticles. Nanomaterials, 2017, 7, 4.	1.9	51
15	Post-processing optimization of electrospun submicron poly(3-hydroxybutyrate) fibers to obtain continuous films of interest in food packaging applications. Food Additives and Contaminants - Part A Chemistry, Analysis, Control, Exposure and Risk Assessment, 2017, 34, 1817-1830.	1.1	49
16	Development of electrospun active films of poly(3-hydroxybutyrate-co-3-hydroxyvalerate) by the incorporation of cyclodextrin inclusion complexes containing oregano essential oil. Food Hydrocolloids, 2020, 108, 106013.	5.6	49
17	University Social Responsibility towards Engineering Undergraduates: The Effect of Methodology on a Service-Learning Experience. Sustainability, 2018, 10, 1823.	1.6	48
18	Physicochemical, Antioxidant and Antimicrobial Properties of Electrospun Poly(ε-caprolactone) Films Containing a Solid Dispersion of Sage (Salvia officinalis L.) Extract. Nanomaterials, 2019, 9, 270.	1.9	48

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19	Studying the degradation of polyhydroxybutyrateâ€ <i>co</i> â€valerate during processing with clayâ€based nanofillers. Journal of Applied Polymer Science, 2009, 112, 3669-3676.	1.3	46
20	The effect of ethylene content on the interaction between ethylene-vinyl alcohol copolymers and water—II: Influence of water sorption on the mechanical properties of EVOH copolymers. Polymer Testing, 2006, 25, 860-867.	2.3	44
21	Reactive Melt Mixing of Poly(3-Hydroxybutyrate)/Rice Husk Flour Composites with Purified Biosustainably Produced Poly(3-Hydroxybutyrate-co-3-Hydroxyvalerate). Materials, 2019, 12, 2152.	1.3	42
22	Multilayer structures based on annealed electrospun biopolymer coatings of interest in water and aroma barrier fiberâ€based food packaging applications. Journal of Applied Polymer Science, 2018, 135, 45501.	1.3	40
23	Development of Electrospun Poly(3-hydroxybutyrate-co-3-hydroxyvalerate) Monolayers Containing Eugenol and Their Application in Multilayer Antimicrobial Food Packaging. Frontiers in Nutrition, 2020, 7, 140.	1.6	38
24	On the relationship between the specific heat enhancement of salt-based nanofluids and the ionic exchange capacity of nanoparticles. Scientific Reports, 2018, 8, 7532.	1.6	37
25	Nanofluid based on self-nanoencapsulated metal/metal alloys phase change materials with tuneable crystallisation temperature. Scientific Reports, 2017, 7, 17580.	1.6	32
26	Keratin–polyhydroxyalkanoate melt ompounded composites with improved barrier properties of interest in food packaging applications. Journal of Applied Polymer Science, 2014, 131, .	1.3	31
27	Assessing the thermoformability of poly(3-hydroxybutyrate-co-3-hydroxyvalerate)/poly(acid lactic) blends compatibilized with diisocyanates. Polymer Testing, 2017, 62, 235-245.	2.3	31
28	Study of the dispersion of nanoclays in a LDPE matrix using microscopy and in-process ultrasonic monitoring. Polymer Testing, 2009, 28, 277-287.	2.3	30
29	Tailoring barrier properties of thermoplastic corn starch-based films (TPCS) by means of a multilayer design. Journal of Colloid and Interface Science, 2016, 483, 84-92.	5.0	30
30	Compatibilization of poly(3â€hydroxybutyrateâ€ <i>co</i> â€3â€hydroxyvalerate)–poly(lactic acid) blends with diisocyanates. Journal of Applied Polymer Science, 2017, 134, .	1.3	30
31	Uniaxial tensile behavior and thermoforming characteristics of high barrier EVOH-based blends of interest in food packaging. Polymer Engineering and Science, 2004, 44, 598-608.	1.5	29
32	Electrospun Active Biopapers of Food Waste Derived Poly(3-hydroxybutyrate-co-3-hydroxyvalerate) with Short-Term and Long-Term Antimicrobial Performance. Nanomaterials, 2020, 10, 506.	1.9	29
33	The effect of ethylene content on the interaction between ethylene–vinyl alcohol copolymers and water: (I) Application of FT-IR spectroscopy to determine transport properties and interactions in food packaging films. Polymer Testing, 2006, 25, 254-261.	2.3	27
34	Biotic degradation of poly(dl-lactide) based nanocomposites. Polymer Degradation and Stability, 2012, 97, 1278-1284.	2.7	27
35	Biodegradable poly(3-hydroxybutyrate-co-3-hydroxyvalerate)/thermoplastic polyurethane blends with improved mechanical and barrier performance. Polymer Degradation and Stability, 2016, 132, 52-61.	2.7	27
36	Poly(3-Hydroxybutyrate-co-3-Hydroxyvalerate)/Purified Cellulose Fiber Composites by Melt Blending: Characterization and Degradation in Composting Conditions. Journal of Renewable Materials, 2016, 4, 123-132.	1.1	27

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37	Adhesion enhancement of powder coatings on galvanised steel by addition of organo-modified silica particles. Progress in Organic Coatings, 2014, 77, 1309-1315.	1.9	26
38	Development of Active Barrier Multilayer Films Based on Electrospun Antimicrobial Hot-Tack Food Waste Derived Poly(3-hydroxybutyrate-co-3-hydroxyvalerate) and Cellulose Nanocrystal Interlayers. Nanomaterials, 2020, 10, 2356.	1.9	26
39	Comparative study of nanocomposites of polyolefin compatibilizers containing kaolinite and montmorillonite organoclays. Journal of Applied Polymer Science, 2010, 115, 1325-1335.	1.3	25
40	Effect of the addition of sepiolite on the morphology and properties of melt compounded PHBV/PLA blends. Polymer Composites, 2019, 40, E156.	2.3	23
41	Characterization of halloysite-water nanofluid for heat transfer applications. Applied Clay Science, 2014, 99, 54-61.	2.6	21
42	Valorization of Municipal Biowaste into Electrospun Poly(3-hydroxybutyrate- <i>co</i> -3-hydroxyvalerate) Biopapers for Food Packaging Applications. ACS Applied Bio Materials, 2020, 3, 6110-6123.	2.3	21
43	New coloured coatings to enhance silica sand absorbance for direct particle solar receiver applications. Renewable Energy, 2020, 152, 1-8.	4.3	20
44	Blends of Poly(3-Hydroxybutyrate-co-3-Hydroxyvalerate) with Fruit Pulp Biowaste Derived Poly(3-Hydroxybutyrate-co-3-Hydroxyvalerate-co-3-Hydroxyhexanoate) for Organic Recycling Food Packaging. Polymers, 2021, 13, 1155.	2.0	20
45	Development and Characterization of Electrospun Biopapers of Poly(3-hydroxybutyrate- <i>co</i> -3-hydroxyvalerate) Derived from Cheese Whey with Varying 3-Hydroxyvalerate Contents. Biomacromolecules, 2021, 22, 2935-2953.	2.6	18
46	Study of the thermoformability of ethylene-vinyl alcohol copolymer based barrier blends of interest in food packaging applications. Journal of Applied Polymer Science, 2004, 91, 3851-3855.	1.3	17
47	On the use of ball milling to develop PHBV–graphene nanocomposites (I)—Morphology, thermal properties, and thermal stability. Journal of Applied Polymer Science, 2015, 132, .	1.3	17
48	Characterization of polyhydroxyalkanoate blends incorporating unpurified biosustainably produced poly(3â€hydroxybutyrateâ€ <i>co</i> â€3â€hydroxyvalerate). Journal of Applied Polymer Science, 2016, 133, .	1.3	17
49	PHBV/TPU/cellulose compounds for compostable injection molded parts with improved thermal and mechanical performance. Journal of Applied Polymer Science, 2019, 136, 47257.	1.3	17
50	High-Oxygen-Barrier Multilayer Films Based on Polyhydroxyalkanoates and Cellulose Nanocrystals. Nanomaterials, 2021, 11, 1443.	1.9	17
51	Development and characterization of unmodified kaolinite/EVOH nanocomposites by melt compounding. Applied Clay Science, 2017, 135, 300-306.	2.6	16
52	Study of the Compatibilization Effect of Different Reactive Agents in PHB/Natural Fiber-Based Composites. Polymers, 2020, 12, 1967.	2.0	16
53	Development and Characterization of Fully Renewable and Biodegradable Polyhydroxyalkanoate Blends with Improved Thermoformability. Polymers, 2022, 14, 2527.	2.0	16
54	On the use of ball milling to develop poly(3â€hydroxybutyrateâ€coâ€3â€hydroxyvalerate)â€graphene nanocomposites (II)—Mechanical, barrier, and electrical properties. Journal of Applied Polymer Science, 2015, 132, .	1.3	15

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55	Stabilization and characterization of a nanofluid based on a eutectic mixture of diphenyl and diphenyl oxide and carbon nanoparticles under high temperature conditions. International Journal of Heat and Mass Transfer, 2017, 113, 908-913.	2.5	14
56	Toughness Enhancement of PHBV/TPU/Cellulose Compounds with Reactive Additives for Compostable Injected Parts in Industrial Applications. International Journal of Molecular Sciences, 2018, 19, 2102.	1.8	14
57	Effect of the Purification Treatment on the Valorization of Natural Cellulosic Residues as Fillers in PHB-Based Composites for Short Shelf Life Applications. Waste and Biomass Valorization, 2021, 12, 2541-2556.	1.8	14
58	On the use of tris(nonylphenyl) phosphite as a chain extender in meltâ€blended poly(hydroxybutyrateâ€ <i>co</i> â€hydroxyvalerate)/clay nanocomposites: Morphology, thermal stability, and mechanical properties. Journal of Applied Polymer Science, 2016, 133, .	1.3	13
59	The combined role of inhibitive pigment and organo-modified silica particles on powder coatings: Mechanical and electrochemical investigation. Progress in Organic Coatings, 2015, 80, 11-19.	1.9	11
60	Acquisition of transversal skills through PBL: a study of the perceptions of the students and teachers in materials science courses in engineering. Multidisciplinary Journal for Education, Social and Technological Sciences, 2015, 2, 121.	0.8	11
61	Modification of Nafion Membranes with Polyaniline to Reduce Methanol Permeability. Journal of the Electrochemical Society, 2015, 162, E325-E333.	1.3	9
62	Superparamagnetic [sic] nanofibers by electrospinning. RSC Advances, 2016, 6, 21413-21422.	1.7	9
63	Development and Characterization of Electrospun Fiber-Based Poly(ethylene-co-vinyl Alcohol) Films of Application Interest as High-Gas-Barrier Interlayers in Food Packaging. Polymers, 2021, 13, 2061.	2.0	9
64	Inorganic-Based Nanostructures and Their Use in Food Packaging. , 2018, , 13-45.		8
65	Role of Plasticizers on PHB/bio-TPE Blends Compatibilized by Reactive Extrusion. Materials, 2022, 15, 1226.	1.3	6
66	On the perceptions of students and professors in the implementation of an inter-university engineering PBL experience. European Journal of Engineering Education, 2019, 44, 726-744.	1.5	3
67	Barrier biopaper multilayers obtained by impregnation of electrospun poly(3-hydroxybutyrate-co-3-hydroxyvalerate) with protein and polysaccharide hydrocolloids. Carbohydrate Polymer Technologies and Applications, 2021, 2, 100150.	1.6	3
68	In Service Performance of Toughened PHBV/TPU Blends Obtained by Reactive Extrusion for Injected Parts. Polymers, 2022, 14, 2337.	2.0	3
69	Toughness Enhancement of Commercial Poly (Hydroxybutyrate-co-Valerate) (PHBV) by Blending with a Thermoplastic Polyurethane (TPU). Journal of Multiscale Modeling, 2016, 07, 1640008.	1.0	2
70	New High-Temperature Heat Transfer and Thermal Storage Molten Salt–Based Nanofluids. , 2017, , 287-304.		2
71	A Project Based Learning interuniversity experience in materials science. , 2015, , .		2
72	Propiedades mécanicas y tribólogicas de recubrimientos alumina/titania proyectados por oxifuel (spray llama). Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2008, 47, 7-12.	0.9	1

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73	Materials in Spanish Design. Procedia, Social and Behavioral Sciences, 2014, 116, 2876-2880.	0.5	0
74	IDM@TI NETWORK & amp; SOCIAL COMMITMENT: A INNOVATIVE PROPOSAL FOR IMPROVING TEACHING AND LEARNING IN MATERIALS SCIENCE AND ENGINEERING (MSE)., 2016,,.		0