Agustin Etxeberria

List of Publications by Year
in descending order

107	2,787	159525 30	223716 46
papers	citations	h-index	g-index

107	107	107	3158
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Packaging materials with desired mechanical and barrier properties and full chemical recyclability. Nature Communications, 2019, 10, 3559.	5.8	245
2	Synthesis, structure and properties of poly(L-lactide-co-ε-caprolactone) statistical copolymers. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 9, 100-112.	1.5	162
3	â€œMichaelâ€•Nanocarriers Mimicking Transient-Binding Disordered Proteins. ACS Macro Letters, 2013, 2, 491-495.	2.3	106
4	A PALS Contribution to the Supramolecular Structure of Poly(<scp>l</scp>-lactide). Macromolecules, 2010, 43, 4698-4707.	2.2	73
5	Enantioselective Ring-Opening Polymerization of rac-Lactide Dictated by Densely Substituted Amino Acids. Journal of the American Chemical Society, 2017, 139, 4805-4814.	6.6	69
6	Structural and electronic properties of PbTiO3, PbZrO3, and PbZr0.5Ti0.5O3: First-principles density-functional studies. Journal of Chemical Physics, 2002, 117, 2699-2709.	1.2	63
7	Influence of the Rigid Amorphous Fraction and Crystallinity on Polylactide Transport Properties. Macromolecules, 2018, 51, 3923-3931.	2.2	61
8	Synthesis and characterization of poly (l-lactide/ε-caprolactone) statistical copolymers with well resolved chain microstructures. Polymer, 2013, 54, 2621-2631.	1.8	58
9	Effects of chain microstructures and derived crystallization capability on hydrolytic degradation of poly(l-lactide/ε-caprolactone) copolymers. Polymer Degradation and Stability, 2013, 98, 481-489.	2.7	56
10	Effects of chain microstructures on mechanical behavior and aging of a poly(L-lactide-co-<mml:math) Tj ETQq0 0 0 rgBT /Overlock 10 Tf thermoplastic-elastomer. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 12, 29-38.	1.5	51
11	Photoelectrochemical properties of doped polyaniline: Application to hydrogen photoproduction. International Journal of Hydrogen Energy, 2013, 38, 6593-6599.	3.8	50
12	Light and gas barrier properties of PLLA/metallic nanoparticles composite films. European Polymer Journal, 2017, 91, 10-20.	2.6	50
13	Tributyl citrate as an effective plasticizer for biodegradable polymers: effect of plasticizer on free volume and transport and mechanical properties. Polymer International, 2019, 68, 125-133.	1.6	49
14	Novel hydrogels of chitosan and poly(vinyl alcohol)-g-glycolic acid copolymer with enhanced rheological properties. Carbohydrate Polymers, 2014, 103, 267-273.	5.1	47
15	Miscibility and Hydrogen Bonding in Blends of Poly(4-vinylphenol)/Poly(vinyl methyl ketone). Polymers, 2014, 6, 2752-2763.	2.0	42
16	Blends of biodegradable poly(butylene adipate-co-terephthalate) with poly(hydroxi amino ether) for packaging applications: Miscibility, rheology and transport properties. European Polymer Journal, 2018, 105, 348-358.	2.6	40
17	Electronic and chemical properties of mixed-metal oxides: Adsorption and reaction of NO on SrTiO3(100). Journal of Chemical Physics, 2003, 118, 6562-6571.	1.2	39
18	Barrier character improvement of an amorphous polyamide (Trogamid) by the addition of a nanoclay. Journal of Membrane Science, 2007, 301, 190-199.	4.1	38

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19	Polyether Synthesis by Bulk Self-Condensation of Diols Catalyzed by Non-Eutectic Acidâ€“Base Organocatalysts. ACS Sustainable Chemistry and Engineering, 2019, 7, 4103-4111.	3.2	37
20	Inverse gas chromatography in the characterization of polymeric materials. Journal of Chromatography A, 1992, 607, 227-237.	1.8	36
21	Screening of different organocatalysts for the sustainable synthesis of PET. European Polymer Journal, 2018, 104, 170-176.	2.6	36
22	Effect of combining cellulose nanocrystals and graphene nanoplatelets on the properties of poly(lactic acid) based films. EXPRESS Polymer Letters, 2018, 12, 543-555.	1.1	36
23	Miscible blends of poly(ethylene oxide) and the poly(hydroxy ether) of bisphenol A (phenoxy). Macromolecules, 1991, 24, 5546-5551.	2.2	35
24	A new generation of poly(lactide/Îµâ€•caprolactone) polymeric biomaterials for application in the medical field. Journal of Biomedical Materials Research - Part A, 2014, 102, 3573-3584.	2.1	35
25	Crystallization and melting behaviour of poly(bisphenol A hydroxy ether)/poly(ethylene oxide) blends. Polymer, 1989, 30, 1160-1165.	1.8	34
26	Tailoring the properties of PP/PA6 nanostructured blends by the addition of nanosilica and compatibilizer agents. European Polymer Journal, 2016, 85, 532-552.	2.6	34
27	Miscibility and degradation of polymer blends based on biodegradable poly(butylene) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 4	2.7	33
28	Improving the barrier properties of a biodegradable polyester for packaging applications. European Polymer Journal, 2019, 115, 76-85.	2.6	32
29	Effect of H12MDI isomer composition on mechanical and physico-chemical properties of polyurethanes based on amorphous and semicrystalline soft segments. Polymer Bulletin, 2013, 70, 2193-2210.	1.7	31
30	Key role of entropy in nanoparticle dispersion: polystyrene-nanoparticle/linear-polystyrene nanocomposites as a model system. Physical Chemistry Chemical Physics, 2008, 10, 650-651.	1.3	30
31	Effects of repeat unit sequence distribution and residual catalyst on thermal degradation of poly(l-lactide/Îµ-caprolactone) statistical copolymers. Polymer Degradation and Stability, 2013, 98, 1293-1299.	2.7	30
32	Poly(hydroxy acids) derived from the self-condensation of hydroxy acids: from polymerization to end-of-life options. Polymer Chemistry, 2020, 11, 4861-4874.	1.9	30
33	Polymerâ€“solvent interaction parameters in polymer solutions at high polymer concentrations. Journal of Chromatography A, 2002, 969, 245-254.	1.8	29
34	Antiplasticization of a polyamide: a positron annihilation lifetime spectroscopy study. Polymer, 2004, 45, 2949-2957.	1.8	29
35	In vitro degradation studies and mechanical behavior of poly(Îµ-caprolactone-co-Î´-valerolactone) and poly(Îµ-caprolactone-co-L-lactide) with random and semi-alternating chain microstructures. European Polymer Journal, 2015, 71, 585-595.	2.6	28
36	PET-ran-PLA Partially Degradable Random Copolymers Prepared by Organocatalysis: Effect of Poly(<scp>l</scp>-lactic acid) Incorporation on Crystallization and Morphology. ACS Sustainable Chemistry and Engineering, 2019, 7, 8647-8659.	3.2	28

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37	Synthesis and characterization of Ï‰-pentadecalactone-co-Îµ-decalactone copolymers: Evaluation of thermal, mechanical and biodegradation properties. Polymer, 2015, 81, 12-22.	1.8	27
38	Isomorphic Polyoxyalkylene Copolyethers Obtained by Copolymerization of Aliphatic Diols. Macromolecules, 2019, 52, 3506-3515.	2.2	27
39	Dielectric, mechanical and transport properties of bisphenol A polycarbonate/graphene nanocomposites prepared by melt blending. Journal of Applied Polymer Science, 2017, 134, .	1.3	26
40	Effect of SEBS-g-MAH addition on the mechanical, rheological, and morphological properties of polycarbonate/acrylonitrileâ€“butadieneâ€“styrene blends. Journal of Elastomers and Plastics, 2018, 50, 611-633.	0.7	25
41	Miscibility of poly(vinyl chloride)/poly(ethylene oxide) blendsâ€”I. Thermal properties and solid state 13C-NMR study. European Polymer Journal, 1993, 29, 1477-1481.	2.6	24
42	Crystallization and its effect on the mechanical properties of a medium chain length polyhydroxyalkanoate. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 39, 87-94.	1.5	24
43	Tougher biodegradable polylactide system for bone fracture fixations: Miscibility study, phase morphology and mechanical properties. European Polymer Journal, 2018, 98, 411-419.	2.6	24
44	Polyethylene terephthalate/low density polyethylene/titanium dioxide blend nanocomposites: Morphology, crystallinity, rheology, and transport properties. Journal of Applied Polymer Science, 2019, 136, 46986.	1.3	23
45	Probing Polymer-Polymer Interaction Parameters in Miscible Blends by Inverse Gas Chromatography: Solvent Effects. Macromolecules, 1994, 27, 1245-1248.	2.2	22
46	A Nanotechnology Pathway to Arresting Phase Separation in Soft Nanocomposites. Macromolecular Rapid Communications, 2011, 32, 573-578.	2.0	22
47	InÂvitro degradation of poly(lactide/Î´-valerolactone) copolymers. Polymer Degradation and Stability, 2015, 112, 104-116.	2.7	22
48	Ethylene brassylate-co-Î´-hexalactone biobased polymers for application in the medical field: synthesis, characterization and cell culture studies. RSC Advances, 2016, 6, 22121-22136.	1.7	22
49	Miscibility of poly(vinyl chloride)/poly(ethylene oxide) blendsâ€”II. An inverse gas chromatography study. European Polymer Journal, 1993, 29, 1483-1487.	2.6	21
50	The phase behaviour of poly(styrene-co-methacrylic acid)/poly(2,6-dimethyl-1,4-phenylene oxide) by inverse gas chromatography. Journal of Chromatography A, 2006, 1127, 237-245.	1.8	21
51	Polymerization of n-butyl acrylate with high concentration of a chain transfer agent (CBr4): detailed characterization and impact on branching. Polymer Chemistry, 2013, 4, 2062.	1.9	20
52	Organic-acid mediated bulk polymerization of Îµ-caprolactam and its copolymerization with Îµ-caprolactone. Journal of Polymer Science Part A, 2016, 54, 2394-2402.	2.5	20
53	Synthesis and properties of Ï‰-pentadecalactone-co-Î´-hexalactone copolymers: a biodegradable thermoplastic elastomer as an alternative to poly(Îµ-caprolactone). RSC Advances, 2016, 6, 3137-3149.	1.7	20
54	A Study of Mixtures of Poly(hydroxy ether of bisphenol A) and Poly(.epsilon.-caprolactone) by Inverse Gas Chromatography. Macromolecules, 1994, 27, 1395-1400.	2.2	19

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55	Miscibility and interactions in a mixture of poly(ethylene oxide) and an aromatic poly(ether amide). Polymer, 1998, 39, 1035-1042.	1.8	19
56	Tensile behavior and dynamic mechanical analysis of novel poly(lactide/Î´-valerolactone) statistical copolymers. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 35, 39-50.	1.5	19
57	Synthesis and characterization of poly (Îµ-caprolactam-co-lactide) polyesteramides using BrÃ¸nsted acid or BrÃ¸nsted base organocatalyst. European Polymer Journal, 2017, 95, 650-659.	2.6	18
58	Lactide-caprolactone copolymers with tuneable barrier properties for packaging applications. Polymer, 2020, 202, 122681.	1.8	18
59	Comparison between Static (Sorption) and Dynamic (IGC) Methods in the Determination of Interaction Parameters in Polymer/Polymer Blends. Macromolecules, 2000, 33, 9115-9121.	2.2	17
60	Novel poly(vinyl alcohol)-g-poly(hydroxy acid) copolymers: Synthesis and characterization. Polymer, 2012, 53, 50-59.	1.8	17
61	Ethylene brassylate: Searching for new comonomers that enhance the ductility and biodegradability of polylactides. Polymer Degradation and Stability, 2017, 137, 23-34.	2.7	17
62	Lattice Fluid Theory and Inverse Gas Chromatography in the Analysis of Polymer-Polymer Interactions. Macromolecules, 1995, 28, 7188-7195.	2.2	16
63	Study of the relationship between transport properties and free volume based in polyamide blends. Journal of Membrane Science, 2006, 284, 173-179.	4.1	16
64	Phase diagram and entropic interaction parameter of athermal allâ€polymer nanocomposites. Polymers for Advanced Technologies, 2008, 19, 756-761.	1.6	16
65	Influence of the organic compounds addition in the polymer free volume, gas sorption and diffusion. European Polymer Journal, 2012, 48, 1218-1229.	2.6	15
66	Organocatalyzed Polymerization of PET-mb-poly(oxyhexane) Copolymers and Their Self-Assembly into Double Crystalline Superstructures. Macromolecules, 2019, 52, 6834-6848.	2.2	15
67	Estimation of interaction parameters of a poly(hydroxy ether of bisphenol A)/poly(vinyl methyl ether) blend by inverse gas chromatography. Polymer, 1994, 35, 2128-2132.	1.8	14
68	Transport properties of trogamid: Comparison of different experimental techniques. Journal of Applied Polymer Science, 2006, 102, 2034-2042.	1.3	14
69	Exothermal Process in Miscible Polylactide/Poly(vinyl phenol) Blends: Mixing Enthalpy or Chemical Reaction?. Macromolecular Rapid Communications, 2006, 27, 2026-2031.	2.0	14
70	Design and stabilization of block copolymer micelles via phenolâ€“pyridine hydrogen-bonding interactions. Polymer, 2010, 51, 1355-1362.	1.8	14
71	Diffusivity of ethylene and propylene in atactic and isotactic polypropylene: Morphology effects and free-volume simulations. Journal of Applied Polymer Science, 2007, 104, 3871-3878.	1.3	13
72	Crystallization and melting behavior of poly(Îµâ€caprolactoneâ€coâ€Î´â€valerolactone) and poly(Îµâ€caprolactoneâ€coâ€Lâ€lactide) copolymers with novel chain microstructures. Journal of Applied Polymer Science, 2015, 132, .	1.3	13

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73	Mechanical properties and state of miscibility in poly(racD,L-lactide-co-glycolide)/(L-lactide-co-Îµ-caprolactone) blends. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 71, 372-382.	1.5	12
74	Blends of poly(ether imide) and an aromatic poly(ether amide): Phase behavior and CO2 transport properties. Journal of Applied Polymer Science, 1998, 68, 2141-2149.	1.3	11
75	Miscibility and specific interactions in blends of poly(4â€vinylphenolâ€coâ€methyl) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 3811-3819.	1.3	10
76	Improving the barrier character of polylactide/phenoxy immiscible blend using poly(lactideâ€coâ€Ê›â€caprolactone) block copolymer as a compatibilizer. Journal of Applied Polymer Science, 2017, 134, 45396.	1.3	10
77	Plasticization of poly(lactide) with poly(ethylene glycol): Low weight plasticizer vs triblock copolymers. Effect on free volume and barrier properties. Journal of Applied Polymer Science, 2020, 137, 48868.	1.3	10
78	Synthesis and Characterization of Fully Biobased Copolyether Polyols. Industrial & Engineering Chemistry Research, 2020, 59, 10746-10753.	1.8	10
79	Influence of ABS Type and Compatibilizer on the Thermal and Mechanical Properties of PC/ABS Blends. International Polymer Processing, 2020, 35, 83-94.	0.3	10
80	Group contribution method for predicting polymer-polymer miscibility: binary blends of poly(p-vinylphenol) and ester-containing polymers. Macromolecules, 1992, 25, 6909-6914.	2.2	9
81	Water-transport properties in polyetherimide blends with a liquid crystal polymer. Journal of Applied Polymer Science, 1999, 73, 323-332.	1.3	9
82	Determination of the diffusion coefficients of organic solvents in polyepichlorohydrin: A comparative study of inverse gas chromatography and sorption methods. Journal of Applied Polymer Science, 2003, 89, 2216-2223.	1.3	9
83	Blends based on biodegradable poly(caprolactone) with outstanding barrier properties for packaging applications: The role of free volume and interactions. European Polymer Journal, 2020, 135, 109869.	2.6	9
84	Characterization of Comb Shaped MAAâ€•co â€PEGMA Copolymers Synthesized by Freeâ€Radical Polymerization. Macromolecular Reaction Engineering, 2020, 14, 2000015.	0.9	8
85	Gas chromatographic measurements of solute diffusion in blends of phenoxy and poly(1,4-butylene) Tj ETQq1 1 0.784314 rgBT /Over	2.6	7
86	Effect of hydrogen bonding on the physicochemical and rheological features of chemically modified phenoxy. Polymer, 2018, 159, 12-22.	1.8	7
87	Improving the barrier character of poly(caprolactone): Transport properties and free volume of immiscible blends. Journal of Applied Polymer Science, 2019, 136, 48018.	1.3	7
88	Enthalpies of Mixing in Polymer Blends of Chlorinated Polymers: Application of a Group Contribution Method. Macromolecules, 1995, 28, 589-595.	2.2	6
89	Phase behavior of binary and ternary blends of poly(styreneâ€coâ€methacrylic acid), poly(styreneâ€coâ€4â€vinylpyridine), and poly(2,6â€dimethylâ€1,4â€phenylene oxide). Journal of Applied Polymer Science, 2008, 108, 220-227.	1.3	6
90	Miscibility Enhancement in All-Polymer Nanocomposites Composed of Weakly-Charged Flexible Chains and Polar Nanoparticles. Journal of Nano Research, 0, 6, 123-132.	0.8	6

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91	Barrier property enhancement of polyamide 6 by blending with a polyhydroxyaminoâ€ether resin. Journal of Polymer Science, Part B: Polymer Physics, 2009, 47, 1625-1634.	2.4	6
92	The phase behavior and thermal stability of blends of poly(styreneâ€coâ€methacrylic) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 702 T	1.3	6
93	Survey on transport properties of vapours and liquids on biodegradable polymers. European Polymer Journal, 2019, 120, 109232.	2.6	6
94	Modelling and control of the microstructure of comb-like poly(MAA-co-PEGMA) water-soluble copolymers. Polymer Chemistry, 2019, 10, 1000-1009.	1.9	5
95	Lactide-Valerolactone Copolymers for Packaging Applications. Polymers, 2022, 14, 52.	2.0	5
96	Interaction energies in polymer/polymer mixtures. Polymer, 1997, 38, 4085-4090.	1.8	4
97	Kinetics of Core-Shell Nanoparticle Formation by Two-Dimensional Nuclear Magnetic Resonance. Macromolecular Rapid Communications, 2009, 30, 932-935.	2.0	4
98	Miscible blends of poly(ethylene oxide) with brush copolymers of poly(vinyl alcohol)-graft-poly(<scp>l</scp>-lactide). Journal of Polymer Science, Part B: Polymer Physics, 2016, 54, 1217-1226.	2.4	4
99	Elaboration and Characterization of Conductive Polymer Nanocomposites with Potential Use as Electrically Driven Membranes. Polymers, 2019, 11, 1180.	2.0	4
100	Miscibility windows of poly(vinyl methyl ether) with modified phenoxy resin. European Polymer Journal, 2001, 37, 1943-1950.	2.6	3
101	Miscibility and Transport Properties of Poly(lactide)/Phenoxy System. Macromolecular Symposia, 2012, 321-322, 20-24.	0.4	3
102	Homogenization of Mutually Immiscible Polymers Using Nanoscale Effects: A Theoretical Study. Research Letters in Physical Chemistry, 2008, 2008, 1-4.	0.3	2
103	Hydrogen Bonds in Blends of Poly(vinylphenolâ€coâ€methylmethacrylate)/Poly(vinylmethylketone). Macromolecular Symposia, 2012, 321-322, 170-174.	0.4	2
104	Enhancement of semiconducting and thermomechanical properties of materials based on polyaniline and polyvinylpyrrolidone. Journal of Polymer Research, 2022, 29, 1.	1.2	1
105	Thermodynamic Study of Blends of Poly(4-vinylphenol-co-methyl) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 187 Td (methacrylate)/P Symposia, 2012, 321-322, 175-178.	0.4	0
106	Physical, mechanical and biodegradation properties of ?-pentadecalactone-co-d-hexalactone copolymers. Frontiers in Bioengineering and Biotechnology, 0, 4, .	2.0	0
107	Modulating the Crystallinity of a Circular Plastic towards Packaging Material with Outstanding Barrier Properties. Macromolecular Rapid Communications, 2022, , 2200008.	2.0	0