

# Erlantz Lizundia

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

99  
papers

2,166  
citations

28  
h-index

42  
g-index

104  
ext. papers

2,795  
ext. citations

6.7  
avg, IF

6  
L-index

#	Paper	IF	Citations
99	PLLA-grafted cellulose nanocrystals: Role of the CNC content and grafting on the PLA bionanocomposite film properties. <i>Carbohydrate Polymers</i> , <b>2016</b> , 142, 105-13	10.3	128
98	Crystallization, structural relaxation and thermal degradation in Poly(L-lactide)/cellulose nanocrystal renewable nanocomposites. <i>Carbohydrate Polymers</i> , <b>2015</b> , 123, 256-65	10.3	117
97	An Organic Cathode Based Dual-Ion Aqueous Zinc Battery Enabled by a Cellulose Membrane. <i>ACS Applied Energy Materials</i> , <b>2019</b> , 2, 1288-1294	6.1	71
96	Nano- and microstructural effects on thermal properties of poly (l-lactide)/multi-wall carbon nanotube composites. <i>Polymer</i> , <b>2012</b> , 53, 2412-2421	3.9	67
95	Increased functional properties and thermal stability of flexible cellulose nanocrystal/ZnO films. <i>Carbohydrate Polymers</i> , <b>2016</b> , 136, 250-8	10.3	66
94	Advances in Natural Biopolymer-Based Electrolytes and Separators for Battery Applications. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2005646	15.6	66
93	A PALS Contribution to the Supramolecular Structure of Poly(l-lactide). <i>Macromolecules</i> , <b>2010</b> , 43, 4698-4707	4.7	60
92	Phase-structure and mechanical properties of isothermally melt-and cold-crystallized poly (L-lactide). <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2013</b> , 17, 242-51	4.1	59
91	Cellulose nanocrystal based multifunctional nanohybrids. <i>Progress in Materials Science</i> , <b>2020</b> , 112, 100668	8.2	58
90	A review on the thermomechanical properties and biodegradation behaviour of polyesters. <i>European Polymer Journal</i> , <b>2019</b> , 121, 109296	5.2	58
89	Chiroptical, morphological and conducting properties of chiral nematic mesoporous cellulose/polypyrrole composite films. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 19184-19194	13	57
88	Construction of antibacterial poly(ethylene terephthalate) films via layer by layer assembly of chitosan and hyaluronic acid. <i>Carbohydrate Polymers</i> , <b>2016</b> , 143, 35-43	10.3	56
87	Analysis of the C=O Stretching Band of the Crystal of Poly(l-lactide). <i>Macromolecules</i> , <b>2009</b> , 42, 5717-5725	3.5	56
86	Polymers for advanced lithium-ion batteries: State of the art and future needs on polymers for the different battery components. <i>Progress in Energy and Combustion Science</i> , <b>2020</b> , 79, 100846	33.6	53
85	Metal Nanoparticles Embedded in Cellulose Nanocrystal Based Films: Material Properties and Post-use Analysis. <i>Biomacromolecules</i> , <b>2018</b> , 19, 2618-2628	6.9	44
84	Biocompatible poly(L-lactide)/MWCNT nanocomposites: morphological characterization, electrical properties, and stem cell interaction. <i>Macromolecular Bioscience</i> , <b>2012</b> , 12, 870-81	5.5	44
83	Light and gas barrier properties of PLLA/metallic nanoparticles composite films. <i>European Polymer Journal</i> , <b>2017</b> , 91, 10-20	5.2	43

82	Poly(l-lactide)/zno nanocomposites as efficient UV-shielding coatings for packaging applications. <i>Journal of Applied Polymer Science</i> , <b>2016</b> , 133, n/a-n/a	2.9	43
81	Thermal, structural and degradation properties of an aromatic $\omega$ liphatic polyester built through ring-opening polymerisation. <i>Polymer Chemistry</i> , <b>2017</b> , 8, 3530-3538	4.9	37
80	Chiroptical luminescent nanostructured cellulose films. <i>Materials Chemistry Frontiers</i> , <b>2017</b> , 1, 979-987	7.8	35
79	Thermal stability increase in metallic nanoparticles-loaded cellulose nanocrystal nanocomposites. <i>Carbohydrate Polymers</i> , <b>2017</b> , 171, 193-201	10.3	35
78	Titania-Cellulose Hybrid Monolith for In-Flow Purification of Water under Solar Illumination. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 29599-29607	9.5	35
77	Cu-coated cellulose nanopaper for green and low-cost electronics. <i>Cellulose</i> , <b>2016</b> , 23, 1997-2010	5.5	35
76	Mesoporous Cellulose Nanocrystal Membranes as Battery Separators for Environmentally Safer Lithium-Ion Batteries. <i>ACS Applied Energy Materials</i> , <b>2019</b> , 2, 3749-3761	6.1	32
75	Black Titania with Nanoscale Helicity. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1904639	15.6	32
74	Methylene diphenyl diisocyanate (MDI) and toluene diisocyanate (TDI) based polyurethanes: thermal, shape-memory and mechanical behavior. <i>RSC Advances</i> , <b>2016</b> , 6, 69094-69102	3.7	30
73	From implantation to degradation - are poly (l-lactide)/multiwall carbon nanotube composite materials really cytocompatible?. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , <b>2014</b> , 10, 1041-51	6	29
72	Magnetic cellulose nanocrystal nanocomposites for the development of green functional materials. <i>Carbohydrate Polymers</i> , <b>2017</b> , 175, 425-432	10.3	29
71	A Single Li-Ion Conductor Based on Cellulose. <i>ACS Applied Energy Materials</i> , <b>2019</b> , 2, 5686-5691	6.1	28
70	Influence of Cation and Anion Type on the Formation of the Electroactive $\beta$ Phase and Thermal and Dynamic Mechanical Properties of Poly(vinylidene fluoride)/Ionic Liquids Blends. <i>Journal of Physical Chemistry C</i> , <b>2019</b> , 123, 27917-27926	3.8	28
69	Synergic Effect of Nanolignin and Metal Oxide Nanoparticles into Poly(l-lactide) Bionanocomposites: Material Properties, Antioxidant Activity, and Antibacterial Performance.. <i>ACS Applied Bio Materials</i> , <b>2020</b> , 3, 5263-5274	4.1	27
68	Physical aging and mechanical performance of poly(l-lactide)/ZnO nanocomposites. <i>Journal of Applied Polymer Science</i> , <b>2016</b> , 133,	2.9	27
67	Multifunctional lignin-based nanocomposites and nanohybrids. <i>Green Chemistry</i> , <b>2021</b> , 23, 6698-6760	10	25
66	Study of the chain microstructure effects on the resulting thermal properties of poly(L-lactide)/poly(N-isopropylacrylamide) biomedical materials. <i>Materials Science and Engineering C</i> , <b>2015</b> , 50, 97-106	8.3	24
65	Towards the development of eco-friendly disposable polymers: ZnO-initiated thermal and hydrolytic degradation in poly(L-lactide)/ZnO nanocomposites. <i>RSC Advances</i> , <b>2016</b> , 6, 15660-15669	3.7	23

64	Water-Soluble Cellulose Derivatives as Suitable Matrices for Multifunctional Materials. <i>Biomacromolecules</i> , <b>2019</b> , 20, 2786-2795	6.9	22
63	Iridescent cellulose nanocrystal films: the link between structural colour and Bragg's law. <i>European Journal of Physics</i> , <b>2018</b> , 39, 045803	0.8	21
62	Self-Assembly Route to TiO <sub>2</sub> and TiC with a Liquid Crystalline Order. <i>Chemistry of Materials</i> , <b>2019</b> , 31, 2174-2181	9.6	20
61	PLLA/ZnO nanocomposites: Dynamic surfaces to harness cell differentiation. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2016</b> , 144, 152-160	6	20
60	Three-dimensional orientation of poly(L-lactide) crystals under uniaxial drawing. <i>RSC Advances</i> , <b>2016</b> , 6, 11943-11951	3.7	18
59	Impact of ZnO nanoparticle morphology on relaxation and transport properties of PLA nanocomposites. <i>Polymer Testing</i> , <b>2019</b> , 75, 175-184	4.5	18
58	Biomimetic photonic materials derived from chitin and chitosan. <i>Journal of Materials Chemistry C</i> , <b>2021</b> , 9, 796-817	7.1	17
57	Electroless plating of platinum nanoparticles onto mesoporous cellulose films for catalytically active free-standing materials. <i>Cellulose</i> , <b>2019</b> , 26, 5513-5527	5.5	16
56	Luminescent carbon dots obtained from polymeric waste. <i>Journal of Cleaner Production</i> , <b>2020</b> , 262, 121288-121293	2.8	16
55	Biocompatible Chitosan-Functionalized Upconverting Nanocomposites. <i>ACS Omega</i> , <b>2018</b> , 3, 86-95	3.9	15
54	Physical Aging in Poly(L-lactide) and its Multi-Wall Carbon Nanotube Nanocomposites. <i>Macromolecular Symposia</i> , <b>2012</b> , 321-322, 118-123	0.8	15
53	Degradation Behavior, Biocompatibility, Electrochemical Performance, and Circularity Potential of Transient Batteries. <i>Advanced Science</i> , <b>2021</b> , 8, 2004814	13.6	15
52	Cellulose and its derivatives for lithium ion battery separators: A review on the processing methods and properties. <i>Carbohydrate Polymer Technologies and Applications</i> , <b>2020</b> , 1, 100001	1.7	14
51	Grafting of Cellulose Nanocrystals <b>2016</b> , 61-113		14
50	Tuneable hydrolytic degradation of poly(l-lactide) scaffolds triggered by ZnO nanoparticles. <i>Materials Science and Engineering C</i> , <b>2017</b> , 75, 714-720	8.3	13
49	Environmental Impact Analysis of Aprotic LiO <sub>2</sub> Batteries Based on Life Cycle Assessment. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2021</b> , 9, 7139-7153	8.3	13
48	Free-volume effects on the thermomechanical performance of epoxy/SiO <sub>2</sub> nanocomposites. <i>Journal of Applied Polymer Science</i> , <b>2017</b> , 134, 45216	2.9	12
47	Poly(L-lactide)/branched Cyclodextrin blends: Thermal, morphological and mechanical properties. <i>Carbohydrate Polymers</i> , <b>2016</b> , 144, 25-32	10.3	12

46	Comparative life cycle assessment of high performance lithium-sulfur battery cathodes. <i>Journal of Cleaner Production</i> , <b>2021</b> , 282, 124528	10.3	12
45	Polysaccharide polyelectrolyte multilayer coating on poly(ethylene terephthalate). <i>Polymer International</i> , <b>2016</b> , 65, 915-920	3.3	11
44	A Sodium-Ion Battery Separator with Reversible Voltage Response Based on Water-Soluble Cellulose Derivatives. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 29264-29274	9.5	10
43	Influence of Methyl substitutions on interpolymer complexes formation between poly(meth)acrylic acids and poly(N-isopropyl(meth)acrylamide)s. <i>Colloid and Polymer Science</i> , <b>2015</b> , 293, 1447-1455	2.4	10
42	Environmental Impacts of Graphite Recycling from Spent Lithium-Ion Batteries Based on Life Cycle Assessment. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2021</b> , 9, 14488-14501	8.3	10
41	Transient Rechargeable Battery with a High Lithium Transport Number Cellulosic Separator. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2101827	15.6	10
40	Strain-Induced Crystallization <b>2018</b> , 471-508		10
39	Effect of template type on the preparation of the emeraldine salt form of polyaniline (PANI-ES) with horseradish peroxidase isoenzyme C (HRPC) and hydrogen peroxide.. <i>RSC Advances</i> , <b>2019</b> , 9, 33080-33095 <sup>9</sup>	3.7	9
38	Cellulose Nanocrystal and Water-Soluble Cellulose Derivative Based Electromechanical Bending Actuators. <i>Materials</i> , <b>2020</b> , 13,	3.5	8
37	Tailoring Electrical and Mechanical Properties of All-Natural Polymer Composites for Environmentally Friendlier Electronics. <i>ACS Applied Polymer Materials</i> , <b>2020</b> , 2, 1448-1457	4.3	8
36	Thermal, optical and structural properties of blocks and blends of PLA and P2HEB. <i>Green Materials</i> , <b>2018</b> , 6, 85-96	3.2	7
35	Stable Na Electrodeposition Enabled by Agarose-Based Water-Soluble Sodium Ion Battery Separators. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 21250-21260	9.5	7
34	Active release coating of multilayer assembled branched and ionic Cyclodextrins onto poly(ethylene terephthalate). <i>Carbohydrate Polymers</i> , <b>2017</b> , 174, 65-71	10.3	6
33	The role of CNC surface modification on the structural, thermal and electrical properties of poly(vinylidene fluoride) nanocomposites. <i>Cellulose</i> , <b>2020</b> , 27, 3821-3834	5.5	6
32	Nanocomposites Based on PLLA and Multi Walled Carbon Nanotubes Support the Myogenic Differentiation of Murine Myoblast Cell Line <b>2013</b> , 2013, 1-8		6
31	Environmental Impacts of Aqueous Zinc Ion Batteries Based on Life Cycle Assessment. <i>Advanced Sustainable Systems</i> , 2100308	5.9	6
30	Effect of SWCNT Content and Water Vapor Adsorption on the Electrical Properties of Cellulose Nanocrystal-Based Nanohybrids. <i>Journal of Physical Chemistry C</i> , <b>2020</b> , 124, 14901-14910	3.8	5
29	Electroactive Phase, Enhanced Thermal and Mechanical Properties and High Ionic Conductivity Response of Poly (Vinylidene Fluoride)/Cellulose Nanocrystal Hybrid Nanocomposites. <i>Materials</i> , <b>2020</b> , 13,	3.5	5

28	Nanopatterned polystyrene-b-poly(acrylic acid) surfaces to modulate cell-material interaction. <i>Materials Science and Engineering C</i> , <b>2017</b> , 75, 229-236	8.3	4
27	Hydrolysis of poly(l-lactide)/ZnO nanocomposites with antimicrobial activity. <i>Journal of Applied Polymer Science</i> , <b>2019</b> , 136, 47786	2.9	4
26	Combining cobalt ferrite and graphite with cellulose nanocrystals for magnetically active and electrically conducting mesoporous nanohybrids. <i>Carbohydrate Polymers</i> , <b>2020</b> , 236, 116001	10.3	4
25	Ceramic nanoparticles and carbon nanotubes reinforced thermoplastic materials for piezocapacitive sensing applications. <i>Composites Science and Technology</i> , <b>2019</b> , 183, 107804	8.6	4
24	Ecodesign coupled with Life Cycle Assessment to reduce the environmental impacts of an industrial enzymatic cleaner. <i>Sustainable Production and Consumption</i> , <b>2022</b> , 29, 718-729	8.2	4
23	Water-based 2D printing of magnetically active cellulose derivative nanocomposites. <i>Carbohydrate Polymers</i> , <b>2020</b> , 233, 115855	10.3	4
22	Biomimetic Mesoporous Cobalt Ferrite/Carbon Nanoflake Helices for Freestanding Lithium-Ion Battery Anodes. <i>ChemistrySelect</i> , <b>2020</b> , 5, 8207-8217	1.8	4
21	Chiral Nematic Cellulose Nanocrystal/Germania and Carbon/Germania Composite Aerogels as Supercapacitor Materials. <i>Chemistry of Materials</i> , <b>2021</b> , 33, 5197-5209	9.6	4
20	A new method to measure the accuracy of intraoral scanners along the complete dental arch: A pilot study. <i>Journal of Advanced Prosthodontics</i> , <b>2019</b> , 11, 331-340	2.2	4
19	A simple approach to understand the physical aging in polymers. <i>European Journal of Physics</i> , <b>2019</b> , 40, 015502	0.8	4
18	Polysaccharide-Based Superabsorbents: Synthesis, Properties, and Applications. <i>Polymers and Polymeric Composites</i> , <b>2019</b> , 1393-1431	0.6	4
17	Free-standing intrinsically conducting polymer membranes based on cellulose and poly(vinylidene fluoride) for energy storage applications. <i>European Polymer Journal</i> , <b>2021</b> , 144, 110240	5.2	4
16	Effect of metal-oxide nanoparticle presence and alginate cross-linking on cellulose nanocrystal-based aerogels. <i>Journal of Applied Polymer Science</i> , <b>2021</b> , 138, 50639	2.9	3
15	Kinetic, thermal, structural and degradation studies on the effect of meta-substituted aromatic-aliphatic polyesters built through ring-opening polymerisation. <i>Polymer Degradation and Stability</i> , <b>2019</b> , 169, 108984	4.7	2
14	Influence of N-alkyl and $\pi$ -substitutions on the thermal behaviour of H-bonded interpolymer complexes based on polymers with acrylamide or lactame groups and poly(4-vinylphenol). <i>Thermochimica Acta</i> , <b>2015</b> , 614, 191-198	2.9	2
13	Teflon tape for laboratory teaching of three-dimensional x-ray crystallography. <i>European Journal of Physics</i> , <b>2018</b> , 39, 055502	0.8	2
12	Hierarchical Nanocellulose-Based Gel Polymer Electrolytes for Stable Na Electrodeposition in Sodium Ion Batteries.. <i>Small</i> , <b>2022</b> , e2107183	11	2
11	Magnetically active nanocomposites based on biodegradable polylactide, polycaprolactone, polybutylene succinate and polybutylene adipate terephthalate. <i>Polymer</i> , <b>2022</b> , 124804	3.9	2

10	Environmental Impact Assessment of Na <sub>3</sub> V <sub>2</sub> (PO <sub>4</sub> ) <sub>3</sub> Cathode Production for Sodium-Ion Batteries. <i>Advanced Energy and Sustainability Research</i> , 2200049	1.6	2
9	Advances, challenges and environmental impacts in metal-air battery electrolytes. <i>Materials Today Energy</i> , <b>2022</b> , 101064	7	2
8	Fostering Education for Circular Economy through Life Cycle Thinking		1
7	Education in Circular Economy: Focusing on Life Cycle Thinking at the University of the Basque Country. <i>Lecture Notes in Mechanical Engineering</i> , <b>2021</b> , 360-365	0.4	1
6	Biomimetic Wood-Inspired Batteries: Fabrication, Electrochemical Performance, and Sustainability within a Circular Perspective. <i>Advanced Sustainable Systems</i> , 2100236	5.9	1
5	Upcycling discarded cellulosic surgical masks into catalytically active freestanding materials.. <i>Cellulose</i> , <b>2022</b> , 29, 1-18	5.5	0
4	The role of critical raw materials for novel strategies in sustainable secondary batteries. <i>Physica Status Solidi (A) Applications and Materials Science</i> ,	1.6	0
3	Influence of cellulose nanocrystal surface functionalization on the bending response of cellulose nanocrystal/ionic liquid soft actuators. <i>Physical Chemistry Chemical Physics</i> , <b>2021</b> , 23, 6710-6716	3.6	0
2	Comparative Study of Mussel Shells Using 3D Scanning. <i>Lecture Notes in Mechanical Engineering</i> , <b>2019</b> , 497-504	0.4	
1	WHAT DO FIRST YEAR ENGINEERING STUDENTS REALLY LEARN?. <i>Dyna (Spain)</i> , <b>2021</b> , 96, 565-565	0.4	