Enrique Herrero Acero

List of Publications by Year
in descending order

44 papers	2,475 citations	236612 25 h-index	288905 40 g-index
48 all docs	48 docs citations	48 times ranked	1967 citing authors

#	Article	IF	Citations
1	Enzymatic Surface Hydrolysis of PET: Effect of Structural Diversity on Kinetic Properties of Cutinases from Thermobifida. Macromolecules, 2011, 44, 4632-4640.	2.2	298
2	Enhanced Cutinase-Catalyzed Hydrolysis of Polyethylene Terephthalate by Covalent Fusion to Hydrophobins. Applied and Environmental Microbiology, 2015, 81, 3586-3592.	1.4	149
3	A New Esterase from Thermobifida halotolerans Hydrolyses Polyethylene Terephthalate (PET) and Polylactic Acid (PLA). Polymers, 2012, 4, 617-629.	2.0	146
4	Hydrolysis of polyethyleneterephthalate by pâ€nitrobenzylesterase from Bacillus subtilis. Biotechnology Progress, 2011, 27, 951-960.	1.3	138
5	Fusion of Binding Domains to Thermobifida cellulosilytica Cutinase to Tune Sorption Characteristics and Enhancing PET Hydrolysis. Biomacromolecules, 2013, 14, 1769-1776.	2.6	137
6	Renewable building blocks for sustainable polyesters: new biotechnological routes for greener plastics. Polymer International, 2016, 65, 861-871.	1.6	127
7	Characterization of a new cutinase fromThermobifida albafor PET-surface hydrolysis. Biocatalysis and Biotransformation, 2012, 30, 2-9.	1.1	125
8	Surface engineering of a cutinase from Thermobifida cellulosilytica for improved polyester hydrolysis. Biotechnology and Bioengineering, 2013, 110, 2581-2590.	1.7	118
9	The Closure of the Cycle: Enzymatic Synthesis and Functionalization of Bio-Based Polyesters. Trends in Biotechnology, 2016, 34, 316-328.	4.9	107
10	Enzymes revolutionize the bioproduction of value-added compounds: From enzyme discovery to special applications. Biotechnology Advances, 2020, 40, 107520.	6.0	97
11	Enzymatic recovery of polyester building blocks from polymer blends. Process Biochemistry, 2017, 59, 58-64.	1.8	89
12	Two Novel Class II Hydrophobins from Trichoderma spp. Stimulate Enzymatic Hydrolysis of Poly(Ethylene Terephthalate) when Expressed as Fusion Proteins. Applied and Environmental Microbiology, 2013, 79, 4230-4238.	1.4	86
13	Improving enzymatic polyurethane hydrolysis by tuning enzyme sorption. Polymer Degradation and Stability, 2016, 132, 69-77.	2.7	85
14	Synergistic chemoâ€enzymatic hydrolysis of poly(ethylene terephthalate) from textile waste. Microbial Biotechnology, 2017, 10, 1376-1383.	2.0	85
15	Enzymatic Degradation of Aromatic and Aliphatic Polyesters by P. pastoris Expressed Cutinase 1 from Thermobifida cellulosilytica. Frontiers in Microbiology, 2017, 8, 938.	1.5	62
16	Small cause, large effect: Structural characterization of cutinases from Thermobifida cellulosilytica. Biotechnology and Bioengineering, 2017, 114, 2481-2488.	1.7	56
17	Biocatalyzed approach for the surface functionalization of poly(Lâ€lactic acid) films using hydrolytic enzymes. Biotechnology Journal, 2015, 10, 1739-1749.	1.8	55
18	Ultrasound-enhanced enzymatic hydrolysis of poly(ethylene terephthalate). Bioresource Technology, 2016, 218, 1298-1302.	4.8	50

#	Article	IF	Citations
19	Enzyme-catalyzed functionalization of poly(L-lactic acid) for drug delivery applications. Process Biochemistry, 2017, 59, 77-83.	1.8	42
20	Banning toxic heavy-metal catalysts from paints: enzymatic cross-linking of alkyd resins. Green Chemistry, 2013, 15, 381.	4.6	36
21	Two-step enzymatic functionalisation of polyamide with phenolics. Journal of Molecular Catalysis B: Enzymatic, 2012, 79, 54-60.	1.8	35
22	Enlarging the tools for efficient enzymatic polycondensation: structural and catalytic features of cutinase 1 from Thermobifida cellulosilytica. Catalysis Science and Technology, 2016, 6, 3430-3442.	2.1	33
23	Bioactive albumin functionalized polylactic acid membranes for improved biocompatibility. Reactive and Functional Polymers, 2013, 73, 1399-1404.	2.0	29
24	Fully renewable polyesters via polycondensation catalyzed by Thermobifida cellulosilytica cutinase 1: an integrated approach. Green Chemistry, 2017, 19, 490-502.	4.6	29
25	Engineering Strategies for Successful Development of Functional Polymers Using Oxidative Enzymes. Chemical Engineering and Technology, 2012, 35, 1359-1372.	0.9	27
26	Enzymatic Functionalization of HMLS-Polyethylene Terephthalate Fabrics Improves the Adhesion to Rubber. ACS Sustainable Chemistry and Engineering, 2017, 5, 6456-6465.	3.2	27
27	Superhydrophobic functionalization of cutinase activated poly(lactic acid) surfaces. Green Chemistry, 2017, 19, 816-822.	4.6	25
28	Enzymatic Recycling of High-Value Phosphor Flame-Retardant Pigment and Glucose from Rayon Fibers. ACS Sustainable Chemistry and Engineering, 2018, 6, 2386-2394.	3.2	25
29	Exploring mild enzymatic sustainable routes for the synthesis of bioâ€degradable aromaticâ€aliphatic oligoesters. Biotechnology Journal, 2016, 11, 642-647.	1.8	24
30	Phenol red-silk tyrosine cross-linked hydrogels. Acta Biomaterialia, 2016, 42, 102-113.	4.1	21
31	Laccase Functionalization of Flax and Coconut Fibers. Polymers, 2014, 6, 1676-1684.	2.0	18
32	Hisâ€Tag Immobilization of Cutinase 1 From Thermobifida cellulosilytica for Solventâ€Free Synthesis of Polyesters. Biotechnology Journal, 2017, 12, 1700322.	1.8	16
33	Comparison of oxygen plasma and cutinase effect on polyethylene terephthalate surface. Journal of Applied Polymer Science, 2013, 128, 3570-3575.	1.3	15
34	Enzymatic hydrolysis of poly(ethyleneterephthalate) used for and analysed by pore modification of track-etched membranes. New Biotechnology, 2017, 39, 42-50.	2.4	14
35	Functionalization Strategies and Fabrication of Solvent-Cast PLLA for Bioresorbable Stents. Applied Sciences (Switzerland), 2021, 11, 1478.	1.3	13
36	Enzymatic hydrolysis of polyester based coatings. Reactive and Functional Polymers, 2013, 73, 1335-1339.	2.0	12

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37	A biofidelic 3D culture model to study the development of brain cellular systems. Scientific Reports, 2016, 6, 24953.	1.6	9
38	Two distinct enzymatic approaches for coupling fatty acids onto lignocellulosic materials. Process Biochemistry, 2017, 59, 111-115.	1.8	6
39	Microbial production of high value molecules using rayon waste material as carbon-source. New Biotechnology, 2019, 51, 8-13.	2.4	6
40	Advances in the Application of Oxidative Enzymes in Biopolymer Chemistry and Biomaterial Research. ACS Symposium Series, 2012, , 329-349.	0.5	1
41	2. Microbial applications for fabric and textile industries. , 2016, , 33-78.		1
42	Banning heavy metals from paints: Enzymatic hardening of alkyd resins. New Biotechnology, 2012, 29, S238-S239.	2.4	0
43	Biosilicaâ€loaded poly(Ïµâ€caprolactone) nanofibers: A step closer to bioprinted materials with tunable properties. Biotechnology Journal, 2014, 9, 1231-1232.	1.8	0
44	Green polymer processing with enzymes. New Biotechnology, 2014, 31, S31.	2.4	0