Lorena Betancor

List of Publications by Year
in descending order

74 papers	4,022 citations	109137 35 h-index	114278 63 g-index
78 all docs	78 docs citations	78 times ranked	3906 citing authors

#	Article	IF	Citations
1	Cellâ€“enzyme tandem systems for sustainable chemistry. Current Opinion in Green and Sustainable Chemistry, 2022, 34, 100600.	3.2	2
2	Immobilization and stabilization of enzymes using biomimetic silicification reactions. Journal of Sol-Gel Science and Technology, 2022, 102, 86-95.	1.1	5
3	Opportunities for the valorization of industrial glycerol via biotransformations. Current Opinion in Green and Sustainable Chemistry, 2021, 28, 100430.	3.2	9
4	One-pot biotransformation of glycerol into serinol catalysed by biocatalytic composites made of whole cells and immobilised enzymes. Green Chemistry, 2021, 23, 1140-1146.	4.6	10
5	Oryza sativa as a tool for assessing arsenic efficacy of arsenic remediation of agricultural soils by sulfidated zerovalent iron nanoparticles. IEEE Transactions on Nanobioscience, 2021, PP, 1-1.	2.2	0
6	Green Production of Cladribine by Using Immobilized 2â€²-Deoxyribosyltransferase from Lactobacillus delbrueckii Stabilized through a Double Covalent/Entrapment Technology. Biomolecules, 2021, 11, 657.	1.8	6
7	Dihydroxyacetone production via heterogeneous biotransformations of crude glycerol. Journal of Biotechnology, 2021, 340, 102-109.	1.9	7
8	Stabilization of Ï‰-transaminase from Pseudomonas fluorescens by immobilization techniques. International Journal of Biological Macromolecules, 2020, 164, 4318-4328.	3.6	14
9	Stabilization of b-Glucuronidase by Immobilization in Magnetic-Silica Hybrid Supports. Catalysts, 2020, 10, 669.	1.6	11
10	Stabilization of Multimeric Enzymes via Immobilization and Further Cross-Linking with Aldehyde-Dextran. Methods in Molecular Biology, 2020, 2100, 175-187.	0.4	10
11	In Situ Immobilization of Enzymes in Biomimetic Silica. Methods in Molecular Biology, 2020, 2100, 259-270.	0.4	5
12	Immobilization of Enzymes on Supports Activated with Glutaraldehyde: A Very Simple Immobilization Protocol. Methods in Molecular Biology, 2020, 2100, 119-127.	0.4	7
13	Efficient glycerol transformation by resting Gluconobacter cells. MicrobiologyOpen, 2019, 8, e926.	1.2	20
14	Design of stable magnetic hybrid nanoparticles of Si-entrapped HRP. PLoS ONE, 2019, 14, e0214004.	1.1	19
15	Bio-inspired silica lipase nanobiocatalysts for the synthesis of fatty acid methyl esters. Process Biochemistry, 2018, 74, 86-93.	1.8	23
16	Heterogeneous Systems Biocatalysis: The Path to the Fabrication of Selfâ€Sufficient Artificial Metabolic Cells. Chemistry - A European Journal, 2017, 23, 17841-17849.	1.7	40
17	Frontispiece: Heterogeneous Systems Biocatalysis: The Path to the Fabrication of Selfâ€Sufficient Artificial Metabolic Cells. Chemistry - A European Journal, 2017, 23, .	1.7	0
18	Enhanced stability of l -lactate dehydrogenase through immobilization engineering. Process Biochemistry, 2016, 51, 1248-1255.	1.8	20

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19	Lipase Immobilization on Siliceous Supports: Application to Synthetic Reactions. Current Organic Chemistry, 2016, 21, 96-103.	0.9	16
20	Protein-Templated Biomimetic Silica Nanoparticles. Langmuir, 2015, 31, 3687-3695.	1.6	45
21	Optimizing the biological activity of Fab fragments by controlling their molecular orientation and spatial distribution across porous hydrogels. Process Biochemistry, 2015, 50, 1565-1571.	1.8	4
22	Stabilized Laccases as Heterogeneous Bioelectrocatalysts. ChemCatChem, 2013, 5, 46-60.	1.8	43
23	Glutaraldehyde-Mediated Protein Immobilization. Methods in Molecular Biology, 2013, 1051, 33-41.	0.4	27
24	Modulation of the Selectivity of Immobilized Lipases by Chemical and Physical Modifications: Release of Omega-3 Fatty Acids from Fish Oil. JAOCS, Journal of the American Oil Chemists' Society, 2012, 89, 97-102.	0.8	32
25	Crossâ€Linking of Lipases Adsorbed on Hydrophobic Supports: Highly Selective Hydrolysis of Fish Oil Catalyzed by RML. JAOCS, Journal of the American Oil Chemists' Society, 2011, 88, 801-807.	0.8	46
26	Hydrolysis of Fish Oil by Lipases Immobilized Inside Porous Supports. JAOCS, Journal of the American Oil Chemists' Society, 2011, 88, 819-826.	0.8	30
27	Release of Omegaâ€3 Fatty Acids by the Hydrolysis of Fish Oil Catalyzed by Lipases Immobilized on Hydrophobic Supports. JAOCS, Journal of the American Oil Chemists' Society, 2011, 88, 1173-1178.	0.8	39
28	Protein hydrolysis by immobilized and stabilized trypsin. Biotechnology Progress, 2011, 27, 677-683.	1.3	18
29	Hydrolysis of fish oil by hyperactivated rhizomucor miehei lipase immobilized by multipoint anion exchange. Biotechnology Progress, 2011, 27, 961-968.	1.3	21
30	Immobilizationâ€“stabilization of glucoamylase: Chemical modification of the enzyme surface followed by covalent attachment on highly activated glyoxyl-agarose supports. Process Biochemistry, 2011, 46, 409-412.	1.8	35
31	Synthetic Chain Terminators Offâ€Load Intermediates from a Type I Polyketide Synthase. ChemBioChem, 2010, 11, 539-546.	1.3	32
32	Co-immobilized coupled enzyme systems in biotechnology. Biotechnology and Genetic Engineering Reviews, 2010, 27, 95-114.	2.4	62
33	Hydrolysis of Tannic Acid Catalyzed by Immobilizedâ^'Stabilized Derivatives of Tannase from Lactobacillus plantarum. Journal of Agricultural and Food Chemistry, 2010, 58, 6403-6409.	2.4	33
34	Improved Catalytic Activity of a Purified Multienzyme from a Modular Polyketide Synthase after Coexpression with Streptomyces Chaperonins in Escherichia coli.. ChemBioChem, 2008, 9, 2962-2966.	1.3	32
35	Threeâ€dimensional immobilization of Î²â€galactosidase on a silicon surface. Biotechnology and Bioengineering, 2008, 99, 261-267.	1.7	63
36	Evaluation of Different Glutaryl Acylase Mutants to Improve the Hydolysis of Cephalosporin C in the Absence of Hydrogen Peroxide. Advanced Synthesis and Catalysis, 2008, 350, 343-348.	2.1	23

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37	Reversible Immobilization of Glutaryl Acylase on Sepabeads Coated with Polyethyleneimine. Biotechnology Progress, 2008, 20, 533-536.	1.3	23
38	Bioinspired enzyme encapsulation for biocatalysis. Trends in Biotechnology, 2008, 26, 566-572.	4.9	359
39	Liquid-Phase Biochemical Sensing with Disk-Type Resonant Microsensor. , 2007, , .		2
40	Optical fibre biosensors using enzymatic transducers to monitor glucose. Measurement Science and Technology, 2007, 18, 3177-3186.	1.4	26
41	Modulation of the catalytic properties of multimeric Î²-galactosidase from E. coli by using different immobilization protocols. Enzyme and Microbial Technology, 2007, 40, 310-315.	1.6	39
42	Stabilization of different alcohol oxidases via immobilization and post immobilization techniques. Enzyme and Microbial Technology, 2007, 40, 278-284.	1.6	66
43	Preparation of a very stable immobilized biocatalyst of glucose oxidase from Aspergillus niger. Journal of Biotechnology, 2006, 121, 284-289.	1.9	78
44	Coimmobilization of a redox enzyme and a cofactor regeneration system. Chemical Communications, 2006, , 3640.	2.2	72
45	Very Strong But Reversible Immobilization of Enzymes on Supports Coated With Ionic Polymers. Methods in Biotechnology, 2006, , 205-216.	0.2	8
46	Stabilization of Multimeric Enzymes Via Immobilization and Further Cross-Linking With Aldehyde-Dextran. Methods in Biotechnology, 2006, , 129-141.	0.2	5
47	Application of a Microfluidic Reactor for Screening Cancer Prodrug Activation Using Silica-Immobilized Nitrobenzene Nitroreductase. Biomacromolecules, 2006, 7, 2631-2636.	2.6	66
48	Glyoxyl agarose: A fully inert and hydrophilic support for immobilization and high stabilization of proteins. Enzyme and Microbial Technology, 2006, 39, 274-280.	1.6	347
49	Purification and identification of different lipases contained in PPL commercial extracts: A minor contaminant is the main responsible of most esterasic activity. Enzyme and Microbial Technology, 2006, 39, 817-823.	1.6	36
50	Glyoxyl agarose as a new chromatographic matrix. Enzyme and Microbial Technology, 2006, 38, 960-966.	1.6	56
51	Different mechanisms of protein immobilization on glutaraldehyde activated supports: Effect of support activation and immobilization conditions. Enzyme and Microbial Technology, 2006, 39, 877-882.	1.6	361
52	Glutaraldehyde in Protein Immobilization. Methods in Biotechnology, 2006, , 57-64.	0.2	18
53	Immobilization and Stabilization of Proteins by Multipoint Covalent Attachment on Novel Amino-Epoxy-SepabeadsÂ®. Methods in Biotechnology, 2006, , 153-162.	0.2	1
54	Improved Stabilization of Chemically Aminated Enzymes Via Multipoint Covalent Attachment on Glyoxyl Supports. Methods in Biotechnology, 2006, , 163-173.	0.2	2

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55	Increasing the binding strength of proteins to PEI coated supports by immobilizing at high ionic strength. Enzyme and Microbial Technology, 2005, 37, 295-299.	1.6	37
56	Preparation of a robust biocatalyst of d-amino acid oxidase on sepabeads supports using the glutaraldehyde crosslinking method. Enzyme and Microbial Technology, 2005, 37, 750-756.	1.6	69
57	Dextran aldehyde coating of glucose oxidase immobilized on magnetic nanoparticles prevents its inactivation by gas bubbles. Journal of Molecular Catalysis B: Enzymatic, 2005, 32, 97-101.	1.8	106
58	Immobilization and stabilization of glutaryl acylase on aminated sepabeads supports by the glutaraldehyde crosslinking method. Journal of Molecular Catalysis B: Enzymatic, 2005, 35, 57-61.	1.8	59
59	Improved stabilization of chemically aminated enzymes via multipoint covalent attachment on glyoxyl supports. Journal of Biotechnology, 2005, 116, 1-10.	1.9	114
60	Enzyme stabilization by glutaraldehyde crosslinking of adsorbed proteins on aminated supports. Journal of Biotechnology, 2005, 119, 70-75.	1.9	259
61	Advantages of the Pre-Immobilization of Enzymes on Porous Supports for Their Entrapment in Solâ"Gels. Biomacromolecules, 2005, 6, 1027-1030.	2.6	51
62	Co-aggregation of Enzymes and Polyethyleneimine:Â A Simple Method To Prepare Stable and Immobilized Derivatives of Glutaryl Acylase. Biomacromolecules, 2005, 6, 1839-1842.	2.6	96
63	Thermus thermophilus as a Cell Factory for the Production of a Thermophilic Mn-Dependent Catalase Which Fails To Be Synthesized in an Active Form in Escherichia coli. Applied and Environmental Microbiology, 2004, 70, 3839-3844.	1.4	46
64	Purification of a Catalase from Thermus thermophilus via IMAC Chromatography: Effect of the Support. Biotechnology Progress, 2004, 20, 1578-1582.	1.3	8
65	Determination of protein-protein interactions through aldehyde-dextran intermolecular cross-linking. Proteomics, 2004, 4, 2602-2607.	1.3	69
66	Ion exchange using poorly activated supports, an easy way for purification of large proteins. Journal of Chromatography A, 2004, 1034, 155-159.	1.8	70
67	Cross-Linked Aggregates of Multimeric Enzymes:Â A Simple and Efficient Methodology To Stabilize Their Quaternary Structure. Biomacromolecules, 2004, 5, 814-817.	2.6	95
68	Prevention of interfacial inactivation of enzymes by coating the enzyme surface with dextran-aldehyde. Journal of Biotechnology, 2004, 110, 201-207.	1.9	68
69	Optimization of an industrial biocatalyst of glutaryl acylase: Stabilization of the enzyme by multipoint covalent attachment onto new amino-epoxy Sepabeads. Journal of Biotechnology, 2004, 111, 219-227.	1.9	48
70	Solid-Phase Reducing Agents as Alternative for Reducing Disulfide Bonds in Proteins. Applied Biochemistry and Biotechnology, 2003, 110, 23-32.	1.4	12
71	Epoxy-Amino Groups:Â A New Tool for Improved Immobilization of Proteins by the Epoxy Method. Biomacromolecules, 2003, 4, 772-777.	2.6	234
72	Design of an immobilized preparation of catalase from Thermus thermophilus to be used in a wide range of conditions.. Enzyme and Microbial Technology, 2003, 33, 278-285.	1.6	50

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73	Use of Physicochemical Tools to Determine the Choice of Optimal Enzyme: Stabilization of -Amino Acid Oxidase. Biotechnology Progress, 2003, 19, 784-788.	1.3	63
74	Preparation of a Stable Biocatalyst of Bovine Liver Catalase Using Immobilization and Postimmobilization Techniques. Biotechnology Progress, 2003, 19, 763-767.	1.3	87