

Lorena Betancor

List of Publications by Year in descending order

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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	Different mechanisms of protein immobilization on glutaraldehyde activated supports: Effect of support activation and immobilization conditions. <i>Enzyme and Microbial Technology</i> , 2006, 39, 877-882.	1.6	361
2	Bioinspired enzyme encapsulation for biocatalysis. <i>Trends in Biotechnology</i> , 2008, 26, 566-572.	4.9	359
3	Glyoxyl agarose: A fully inert and hydrophilic support for immobilization and high stabilization of proteins. <i>Enzyme and Microbial Technology</i> , 2006, 39, 274-280.	1.6	347
4	Enzyme stabilization by glutaraldehyde crosslinking of adsorbed proteins on aminated supports. <i>Journal of Biotechnology</i> , 2005, 119, 70-75.	1.9	259
5	Epoxy-Amino Groups: A New Tool for Improved Immobilization of Proteins by the Epoxy Method. <i>Biomacromolecules</i> , 2003, 4, 772-777.	2.6	234
6	Improved stabilization of chemically aminated enzymes via multipoint covalent attachment on glyoxyl supports. <i>Journal of Biotechnology</i> , 2005, 116, 1-10.	1.9	114
7	Dextran aldehyde coating of glucose oxidase immobilized on magnetic nanoparticles prevents its inactivation by gas bubbles. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2005, 32, 97-101.	1.8	106
8	Co-aggregation of Enzymes and Polyethyleneimine: A Simple Method To Prepare Stable and Immobilized Derivatives of Glutaryl Acylase. <i>Biomacromolecules</i> , 2005, 6, 1839-1842.	2.6	96
9	Cross-Linked Aggregates of Multimeric Enzymes: A Simple and Efficient Methodology To Stabilize Their Quaternary Structure. <i>Biomacromolecules</i> , 2004, 5, 814-817.	2.6	95
10	Preparation of a Stable Biocatalyst of Bovine Liver Catalase Using Immobilization and Postimmobilization Techniques. <i>Biotechnology Progress</i> , 2003, 19, 763-767.	1.3	87
11	Preparation of a very stable immobilized biocatalyst of glucose oxidase from <i>Aspergillus niger</i> . <i>Journal of Biotechnology</i> , 2006, 121, 284-289.	1.9	78
12	Coimmobilization of a redox enzyme and a cofactor regeneration system. <i>Chemical Communications</i> , 2006, , 3640.	2.2	72
13	Ion exchange using poorly activated supports, an easy way for purification of large proteins. <i>Journal of Chromatography A</i> , 2004, 1034, 155-159.	1.8	70
14	Determination of protein-protein interactions through aldehyde-dextran intermolecular cross-linking. <i>Proteomics</i> , 2004, 4, 2602-2607.	1.3	69
15	Preparation of a robust biocatalyst of d-amino acid oxidase on sephabeads supports using the glutaraldehyde crosslinking method. <i>Enzyme and Microbial Technology</i> , 2005, 37, 750-756.	1.6	69
16	Prevention of interfacial inactivation of enzymes by coating the enzyme surface with dextran-aldehyde. <i>Journal of Biotechnology</i> , 2004, 110, 201-207.	1.9	68
17	Application of a Microfluidic Reactor for Screening Cancer Prodrug Activation Using Silica-Immobilized Nitrobenzene Nitroreductase. <i>Biomacromolecules</i> , 2006, 7, 2631-2636.	2.6	66
18	Stabilization of different alcohol oxidases via immobilization and post immobilization techniques. <i>Enzyme and Microbial Technology</i> , 2007, 40, 278-284.	1.6	66

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19	Use of Physicochemical Tools to Determine the Choice of Optimal Enzyme: Stabilization of α -Amino Acid Oxidase. <i>Biotechnology Progress</i> , 2003, 19, 784-788.	1.3	63
20	Three-dimensional immobilization of β -galactosidase on a silicon surface. <i>Biotechnology and Bioengineering</i> , 2008, 99, 261-267.	1.7	63
21	Co-immobilized coupled enzyme systems in biotechnology. <i>Biotechnology and Genetic Engineering Reviews</i> , 2010, 27, 95-114.	2.4	62
22	Immobilization and stabilization of glutaryl acylase on aminated sephabeads supports by the glutaraldehyde crosslinking method. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2005, 35, 57-61.	1.8	59
23	Glyoxyl agarose as a new chromatographic matrix. <i>Enzyme and Microbial Technology</i> , 2006, 38, 960-966.	1.6	56
24	Advantages of the Pre-Immobilization of Enzymes on Porous Supports for Their Entrapment in Sol-gel. <i>Biomacromolecules</i> , 2005, 6, 1027-1030.	2.6	51
25	Design of an immobilized preparation of catalase from <i>Thermus thermophilus</i> to be used in a wide range of conditions. <i>Enzyme and Microbial Technology</i> , 2003, 33, 278-285.	1.6	50
26	Optimization of an industrial biocatalyst of glutaryl acylase: Stabilization of the enzyme by multipoint covalent attachment onto new amino-epoxy Sepabeads. <i>Journal of Biotechnology</i> , 2004, 111, 219-227.	1.9	48
27	<i>Thermus thermophilus</i> as a Cell Factory for the Production of a Thermophilic Mn-Dependent Catalase Which Fails To Be Synthesized in an Active Form in <i>Escherichia coli</i> . <i>Applied and Environmental Microbiology</i> , 2004, 70, 3839-3844.	1.4	46
28	Cross-linking of Lipases Adsorbed on Hydrophobic Supports: Highly Selective Hydrolysis of Fish Oil Catalyzed by RML. <i>JAOCS, Journal of the American Oil Chemists' Society</i> , 2011, 88, 801-807.	0.8	46
29	Protein-Templated Biomimetic Silica Nanoparticles. <i>Langmuir</i> , 2015, 31, 3687-3695.	1.6	45
30	Stabilized Laccases as Heterogeneous Bioelectrocatalysts. <i>ChemCatChem</i> , 2013, 5, 46-60.	1.8	43
31	Heterogeneous Systems Biocatalysis: The Path to the Fabrication of Self-sufficient Artificial Metabolic Cells. <i>Chemistry - A European Journal</i> , 2017, 23, 17841-17849.	1.7	40
32	Modulation of the catalytic properties of multimeric β -galactosidase from <i>E. coli</i> by using different immobilization protocols. <i>Enzyme and Microbial Technology</i> , 2007, 40, 310-315.	1.6	39
33	Release of Omega-3 Fatty Acids by the Hydrolysis of Fish Oil Catalyzed by Lipases Immobilized on Hydrophobic Supports. <i>JAOCS, Journal of the American Oil Chemists' Society</i> , 2011, 88, 1173-1178.	0.8	39
34	Increasing the binding strength of proteins to PEI coated supports by immobilizing at high ionic strength. <i>Enzyme and Microbial Technology</i> , 2005, 37, 295-299.	1.6	37
35	Purification and identification of different lipases contained in PPL commercial extracts: A minor contaminant is the main responsible of most esterase activity. <i>Enzyme and Microbial Technology</i> , 2006, 39, 817-823.	1.6	36
36	Immobilization-stabilization of glucoamylase: Chemical modification of the enzyme surface followed by covalent attachment on highly activated glyoxyl-agarose supports. <i>Process Biochemistry</i> , 2011, 46, 409-412.	1.8	35

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37	Hydrolysis of Tannic Acid Catalyzed by Immobilized and Stabilized Derivatives of Tannase from <i>Lactobacillus plantarum</i> . <i>Journal of Agricultural and Food Chemistry</i> , 2010, 58, 6403-6409.	2.4	33
38	Improved Catalytic Activity of a Purified Multienzyme from a Modular Polyketide Synthase after Coexpression with <i>Streptomyces</i> Chaperonins in <i>Escherichia coli</i> . <i>ChemBioChem</i> , 2008, 9, 2962-2966.	1.3	32
39	Synthetic Chain Terminators Offload Intermediates from a Type I Polyketide Synthase. <i>ChemBioChem</i> , 2010, 11, 539-546.	1.3	32
40	Modulation of the Selectivity of Immobilized Lipases by Chemical and Physical Modifications: Release of Omega-3 Fatty Acids from Fish Oil. <i>JAOCS, Journal of the American Oil Chemists' Society</i> , 2012, 89, 97-102.	0.8	32
41	Hydrolysis of Fish Oil by Lipases Immobilized Inside Porous Supports. <i>JAOCS, Journal of the American Oil Chemists' Society</i> , 2011, 88, 819-826.	0.8	30
42	Glutaraldehyde-Mediated Protein Immobilization. <i>Methods in Molecular Biology</i> , 2013, 1051, 33-41.	0.4	27
43	Optical fibre biosensors using enzymatic transducers to monitor glucose. <i>Measurement Science and Technology</i> , 2007, 18, 3177-3186.	1.4	26
44	Evaluation of Different Glutaryl Acylase Mutants to Improve the Hydrolysis of Cephalosporin C in the Absence of Hydrogen Peroxide. <i>Advanced Synthesis and Catalysis</i> , 2008, 350, 343-348.	2.1	23
45	Reversible Immobilization of Glutaryl Acylase on Sepabeads Coated with Polyethyleneimine. <i>Biotechnology Progress</i> , 2008, 20, 533-536.	1.3	23
46	Bio-inspired silica lipase nanobiocatalysts for the synthesis of fatty acid methyl esters. <i>Process Biochemistry</i> , 2018, 74, 86-93.	1.8	23
47	Hydrolysis of fish oil by hyperactivated <i>Rhizomucor miehei</i> lipase immobilized by multipoint anion exchange. <i>Biotechnology Progress</i> , 2011, 27, 961-968.	1.3	21
48	Enhanced stability of L-lactate dehydrogenase through immobilization engineering. <i>Process Biochemistry</i> , 2016, 51, 1248-1255.	1.8	20
49	Efficient glycerol transformation by resting <i>Gluconobacter</i> cells. <i>MicrobiologyOpen</i> , 2019, 8, e926.	1.2	20
50	Design of stable magnetic hybrid nanoparticles of Si-entrapped HRP. <i>PLoS ONE</i> , 2019, 14, e0214004.	1.1	19
51	Glutaraldehyde in Protein Immobilization. <i>Methods in Biotechnology</i> , 2006, , 57-64.	0.2	18
52	Protein hydrolysis by immobilized and stabilized trypsin. <i>Biotechnology Progress</i> , 2011, 27, 677-683.	1.3	18
53	Lipase Immobilization on Siliceous Supports: Application to Synthetic Reactions. <i>Current Organic Chemistry</i> , 2016, 21, 96-103.	0.9	16
54	Stabilization of α -transaminase from <i>Pseudomonas fluorescens</i> by immobilization techniques. <i>International Journal of Biological Macromolecules</i> , 2020, 164, 4318-4328.	3.6	14

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55	Solid-Phase Reducing Agents as Alternative for Reducing Disulfide Bonds in Proteins. <i>Applied Biochemistry and Biotechnology</i> , 2003, 110, 23-32.	1.4	12
56	Stabilization of b-Glucuronidase by Immobilization in Magnetic-Silica Hybrid Supports. <i>Catalysts</i> , 2020, 10, 669.	1.6	11
57	One-pot biotransformation of glycerol into serinol catalysed by biocatalytic composites made of whole cells and immobilised enzymes. <i>Green Chemistry</i> , 2021, 23, 1140-1146.	4.6	10
58	Stabilization of Multimeric Enzymes via Immobilization and Further Cross-Linking with Aldehyde-Dextran. <i>Methods in Molecular Biology</i> , 2020, 2100, 175-187.	0.4	10
59	Opportunities for the valorization of industrial glycerol via biotransformations. <i>Current Opinion in Green and Sustainable Chemistry</i> , 2021, 28, 100430.	3.2	9
60	Purification of a Catalase from <i>Thermus thermophilus</i> via IMAC Chromatography: Effect of the Support. <i>Biotechnology Progress</i> , 2004, 20, 1578-1582.	1.3	8
61	Very Strong But Reversible Immobilization of Enzymes on Supports Coated With Ionic Polymers. <i>Methods in Biotechnology</i> , 2006, , 205-216.	0.2	8
62	Dihydroxyacetone production via heterogeneous biotransformations of crude glycerol. <i>Journal of Biotechnology</i> , 2021, 340, 102-109.	1.9	7
63	Immobilization of Enzymes on Supports Activated with Glutaraldehyde: A Very Simple Immobilization Protocol. <i>Methods in Molecular Biology</i> , 2020, 2100, 119-127.	0.4	7
64	Green Production of Cladribine by Using Immobilized 2-Deoxyribosyltransferase from <i>Lactobacillus delbrueckii</i> Stabilized through a Double Covalent/Entrapment Technology. <i>Biomolecules</i> , 2021, 11, 657.	1.8	6
65	Stabilization of Multimeric Enzymes Via Immobilization and Further Cross-Linking With Aldehyde-Dextran. <i>Methods in Biotechnology</i> , 2006, , 129-141.	0.2	5
66	In Situ Immobilization of Enzymes in Biomimetic Silica. <i>Methods in Molecular Biology</i> , 2020, 2100, 259-270.	0.4	5
67	Immobilization and stabilization of enzymes using biomimetic silicification reactions. <i>Journal of Sol-Gel Science and Technology</i> , 2022, 102, 86-95.	1.1	5
68	Optimizing the biological activity of Fab fragments by controlling their molecular orientation and spatial distribution across porous hydrogels. <i>Process Biochemistry</i> , 2015, 50, 1565-1571.	1.8	4
69	Liquid-Phase Biochemical Sensing with Disk-Type Resonant Microsensor. , 2007, , .		2
70	Improved Stabilization of Chemically Aminated Enzymes Via Multipoint Covalent Attachment on Glyoxyl Supports. <i>Methods in Biotechnology</i> , 2006, , 163-173.	0.2	2
71	Cell-free enzyme tandem systems for sustainable chemistry. <i>Current Opinion in Green and Sustainable Chemistry</i> , 2022, 34, 100600.	3.2	2
72	Immobilization and Stabilization of Proteins by Multipoint Covalent Attachment on Novel Amino-Epoxy-Sepabeads®. <i>Methods in Biotechnology</i> , 2006, , 153-162.	0.2	1

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73	Frontispiece: Heterogeneous Systems Biocatalysis: The Path to the Fabrication of Self-Sufficient Artificial Metabolic Cells. Chemistry - A European Journal, 2017, 23, .	1.7	0
74	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