

Lorena Wilson

List of Publications by Year in descending order

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86
papers

3,071
citations

126907

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53
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94
all docs

94
docs citations

94
times ranked

2568
citing authors

#	ARTICLE	IF	CITATIONS
1	Recent trends in biocatalysis engineering. <i>Bioresource Technology</i> , 2012, 115, 48-57.	9.6	227
2	Encapsulation of crosslinked penicillin G acylase aggregates in lentikats: Evaluation of a novel biocatalyst in organic media. <i>Biotechnology and Bioengineering</i> , 2004, 86, 558-562.	3.3	130
3	Co-Aggregation of Penicillin G Acylase and Polyionic Polymers:Â An Easy Methodology To Prepare Enzyme Biocatalysts Stable in Organic Media. <i>Biomacromolecules</i> , 2004, 5, 852-857.	5.4	120
4	CLEAs of lipases and poly-ionic polymers: A simple way of preparing stable biocatalysts with improved properties. <i>Enzyme and Microbial Technology</i> , 2006, 39, 750-755.	3.2	114
5	Heterofunctional HydrophilicâHydrophobic Porous Silica as Support for Multipoint Covalent Immobilization of Lipases: Application to Lactulose Palmitate Synthesis. <i>Langmuir</i> , 2014, 30, 3557-3566.	3.5	114
6	Detailed Analysis of Galactooligosaccharides Synthesis with Î²-Galactosidase from <i>Aspergillus oryzae</i> . <i>Journal of Agricultural and Food Chemistry</i> , 2013, 61, 1081-1087.	5.2	108
7	Synthesis of galacto-oligosaccharides at very high lactose concentrations with immobilized Î²-galactosidases from <i>Aspergillus oryzae</i> . <i>Process Biochemistry</i> , 2011, 46, 245-252.	3.7	107
8	Cross-Linked Aggregates of Multimeric Enzymes:Â A Simple and Efficient Methodology To Stabilize Their Quaternary Structure. <i>Biomacromolecules</i> , 2004, 5, 814-817.	5.4	95
9	Improvement of the stability of alcohol dehydrogenase by covalent immobilization on glyoxyl-agarose. <i>Journal of Biotechnology</i> , 2006, 125, 85-94.	3.8	86
10	Stabilization of a Formate Dehydrogenase by Covalent Immobilization on Highly Activated Glyoxyl-Agarose Supports. <i>Biomacromolecules</i> , 2006, 7, 669-673.	5.4	75
11	Improvement of the functional properties of a thermostable lipase from <i>alcaligenes</i> sp. via strong adsorption on hydrophobic supports. <i>Enzyme and Microbial Technology</i> , 2006, 38, 975-980.	3.2	75
12	Evaluation of different immobilization strategies to prepare an industrial biocatalyst of formate dehydrogenase from <i>Candida boidinii</i> . <i>Enzyme and Microbial Technology</i> , 2007, 40, 540-546.	3.2	65
13	Immobilization of <i>Bacillus circulans</i> Î²-galactosidase and its application in the synthesis of galacto-oligosaccharides under repeated-batch operation. <i>Biochemical Engineering Journal</i> , 2013, 77, 41-48.	3.6	65
14	Effect of lipaseâlipase interactions in the activity, stability and specificity of a lipase from <i>Alcaligenes</i> sp.. <i>Enzyme and Microbial Technology</i> , 2006, 39, 259-264.	3.2	64
15	Preparation of artificial hyper-hydrophilic micro-environments (polymeric salts) surrounding enzyme molecules. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2002, 19-20, 295-303.	1.8	62
16	Immobilization of lipases in hydrophobic chitosan for selective hydrolysis of fish oil: The impact of support functionalization on lipase activity, selectivity and stability. <i>International Journal of Biological Macromolecules</i> , 2018, 108, 674-686.	7.5	61
17	Use of chitosan heterofunctionality for enzyme immobilization: Î²-galactosidase immobilization for galacto-oligosaccharide synthesis. <i>International Journal of Biological Macromolecules</i> , 2018, 116, 182-193.	7.5	60
18	Production of cephalexin in organic medium at high substrate concentrations with CLEA of penicillin acylase and PGA-450. <i>Enzyme and Microbial Technology</i> , 2007, 40, 195-203.	3.2	58

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19	Influence of different immobilization techniques for <i>Candida cylindracea</i> lipase on its stability and fish oil hydrolysis. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2012, 78, 111-118.	1.8	56
20	Selective and eco-friendly synthesis of lipoaminoacid-based surfactants for food, using immobilized lipase and protease biocatalysts. <i>Food Chemistry</i> , 2018, 239, 189-195.	8.2	50
21	Selectivity of R-1-monobenzoate glycerol synthesis catalyzed by <i>Candida antarctica</i> lipase B immobilized on heterofunctional supports. <i>Process Biochemistry</i> , 2015, 50, 1870-1877.	3.7	48
22	Crosslinked Penicillin Acylase Aggregates for Synthesis of 2-Lactam Antibiotics in Organic Medium. <i>Applied Biochemistry and Biotechnology</i> , 2006, 133, 189-202.	2.9	46
23	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.	1.9	46
24	Hierarchical meso-macroporous silica grafted with glyoxyl groups: opportunities for covalent immobilization of enzymes. <i>New Biotechnology</i> , 2013, 30, 500-506.	4.4	41
25	Effect of the degree of cross-linking on the properties of different CLEAs of penicillin acylase. <i>Process Biochemistry</i> , 2009, 44, 322-326.	3.7	39
26	Immobilization and Stabilization of a Cyclodextrin Glycosyltransferase by Covalent Attachment on Highly Activated Glyoxyl-Agarose Supports. <i>Biotechnology Progress</i> , 2006, 22, 1140-1145.	2.6	38
27	Design of combined crosslinked enzyme aggregates (combi-CLEAs) of 2-galactosidase and glucose isomerase for the one-pot production of fructose syrup from lactose. <i>Food Chemistry</i> , 2019, 288, 102-107.	8.2	38
28	Improvement of Efficiency in the Enzymatic Synthesis of Lactulose Palmitate. <i>Journal of Agricultural and Food Chemistry</i> , 2015, 63, 3716-3724.	5.2	37
29	Biocatalysis in the winemaking industry: Challenges and opportunities for immobilized enzymes. <i>Comprehensive Reviews in Food Science and Food Safety</i> , 2020, 19, 595-621.	11.7	36
30	Reactivation of covalently immobilized lipase from <i>Thermomyces lanuginosus</i> . <i>Process Biochemistry</i> , 2009, 44, 641-646.	3.7	35
31	Reactivation of penicillin acylase biocatalysts: Effect of the intensity of enzyme-support attachment and enzyme load. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2012, 74, 224-229.	1.8	35
32	Enzyme Reactor Design Under Thermal Inactivation. <i>Critical Reviews in Biotechnology</i> , 2003, 23, 61-93.	9.0	34
33	Asymmetric hydrolysis of dimethyl-3-phenylglutarate in sequential batch reactor operation catalyzed by immobilized <i>Geobacillus thermocatenulatus</i> lipase. <i>Catalysis Today</i> , 2015, 255, 21-26.	4.4	34
34	Temperature optimization for reactor operation with chitin-immobilized lactase under modulated inactivation. <i>Enzyme and Microbial Technology</i> , 2000, 27, 270-278.	3.2	33
35	Entrapment of enzyme aggregates in chitosan beads for aroma release in white wines. <i>International Journal of Biological Macromolecules</i> , 2020, 154, 1082-1090.	7.5	33
36	Synthesis of cephalexin with immobilized penicillin acylase at very high substrate concentrations in fully aqueous medium. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2007, 47, 72-78.	1.8	30

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37	Effect of modulation of enzyme inactivation on temperature optimization for reactor operation with chitin-immobilized lactase. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2001, 11, 531-540.	1.8	28
38	Synthesis of cephalixin in ethylene glycol with glyoxyl-agarose immobilised penicillin acylase: temperature and pH optimisation. <i>Process Biochemistry</i> , 2003, 39, 111-117.	3.7	28
39	Evaluation of the incidence of diffusional restrictions on the enzymatic reactions of hydrolysis of penicillin G and synthesis of cephalixin. <i>Enzyme and Microbial Technology</i> , 2010, 47, 268-276.	3.2	28
40	Improvement of Chitosan Derivatization for the Immobilization of <i>Bacillus circulans</i> β -Galactosidase and Its Further Application in Galacto-oligosaccharide Synthesis. <i>Journal of Agricultural and Food Chemistry</i> , 2014, 62, 10126-10135.	5.2	26
41	Immobilization of <i>Alcaligenes</i> sp. lipase as catalyst for the transesterification of vegetable oils to produce biodiesel. <i>Catalysis Today</i> , 2016, 259, 177-182.	4.4	26
42	Production of combi-CLEAs of glycosidases utilized for aroma enhancement in wine. <i>Food and Bioproducts Processing</i> , 2015, 94, 555-560.	3.6	25
43	Aroma Release in Wine Using Co-Immobilized Enzyme Aggregates. <i>Molecules</i> , 2016, 21, 1485.	3.8	25
44	Effect of enzyme load and catalyst particle size on the diffusional restrictions in reactions of synthesis and hydrolysis catalyzed by α -chymotrypsin immobilized into glyoxal-agarose. <i>Process Biochemistry</i> , 2017, 53, 172-179.	3.7	23
45	Bio-inspired silica lipase nanobiocatalysts for the synthesis of fatty acid methyl esters. <i>Process Biochemistry</i> , 2018, 74, 86-93.	3.7	23
46	Synthesis of Cephalixin in Aqueous Medium with Carrier-bound and Carrier-free Penicillin Acylase Biocatalysts. <i>Applied Biochemistry and Biotechnology</i> , 2009, 157, 98-110.	2.9	21
47	Simple strategy of reactivation of a partially inactivated penicillin g acylase biocatalyst in organic solvent and its impact on the synthesis of β -lactam antibiotics. <i>Biotechnology and Bioengineering</i> , 2009, 103, 472-479.	3.3	20
48	Diffusional restrictions in glyoxyl-agarose immobilized penicillin G acylase of different particle size and protein loading. <i>Electronic Journal of Biotechnology</i> , 2010, 13, .	2.2	20
49	Synthesis with Immobilized Lipases and Downstream Processing of Ascorbyl Palmitate. <i>Molecules</i> , 2019, 24, 3227.	3.8	20
50	Effect of chain length on the activity of free and immobilized alcohol dehydrogenase towards aliphatic alcohols. <i>Enzyme and Microbial Technology</i> , 2009, 44, 135-138.	3.2	19
51	Effect of particle size distribution on the simulation of immobilized enzyme reactor performance. <i>Biochemical Engineering Journal</i> , 2010, 49, 256-263.	3.6	19
52	Batch reactor performance for the enzymatic synthesis of cephalixin: influence of catalyst enzyme loading and particle size. <i>New Biotechnology</i> , 2012, 29, 218-226.	4.4	19
53	Influence of chitosan derivatization on its physicochemical characteristics and its use as enzyme support. <i>Journal of Applied Polymer Science</i> , 2014, 131, .	2.6	17
54	Simultaneous synthesis and purification (SSP) of galacto-oligosaccharides in batch operation. <i>LWT - Food Science and Technology</i> , 2016, 72, 81-89.	5.2	16

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55	Lipase Immobilization on Siliceous Supports: Application to Synthetic Reactions. <i>Current Organic Chemistry</i> , 2016, 21, 96-103.	1.6	16
56	Enhanced long-chain fatty alcohol oxidation by immobilization of alcohol dehydrogenase from <i>S. cerevisiae</i> . <i>Applied Microbiology and Biotechnology</i> , 2018, 102, 237-247.	3.6	15
57	Co-immobilized β -galactosidase and <i>Saccharomyces cerevisiae</i> cells for the simultaneous synthesis and purification of galacto-oligosaccharides. <i>Enzyme and Microbial Technology</i> , 2018, 118, 102-108.	3.2	15
58	Carrier-bound and carrier-free penicillin acylase biocatalysts for the thermodynamically controlled synthesis of β -lactam compounds in organic medium. <i>Enzyme and Microbial Technology</i> , 2008, 43, 442-447.	3.2	14
59	Effect of Internal Diffusional Restrictions on the Hydrolysis of Penicillin G: Reactor Performance and Specific Productivity of 6-APA with Immobilized Penicillin Acylase. <i>Applied Biochemistry and Biotechnology</i> , 2011, 165, 426-441.	2.9	14
60	In situ immobilization of β -galactosidase from <i>Bacillus circulans</i> in silica by sol-gel process: Application in prebiotic synthesis. <i>Engineering in Life Sciences</i> , 2016, 16, 396-404.	3.6	14
61	Synthesis of propyl- β -D-galactoside with free and immobilized β -galactosidase from <i>Aspergillus oryzae</i> . <i>Process Biochemistry</i> , 2017, 53, 162-171.	3.7	14
62	Parameters for the Evaluation of Immobilized Enzymes Under Process Conditions. <i>Methods in Molecular Biology</i> , 2020, 2100, 65-81.	0.9	14
63	Heterogeneous Enzyme Kinetics. , 2008, , 155-203.		14
64	Carbonaceous-siliceous composite materials as immobilization support for lipase from <i>Alcaligenes</i> sp.: Application to the synthesis of antioxidants. <i>Carbon</i> , 2014, 74, 96-103.	10.3	12
65	Homogeneous Enzyme Kinetics. , 2008, , 107-153.		12
66	Reactivation of immobilized penicillin G acylase: Influence of cosolvents and catalytic modulators. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2011, 68, 77-82.	1.8	11
67	Synthesis of butyl- β -D-galactoside with commercial β -galactosidases. <i>Food and Bioprocess Processing</i> , 2017, 103, 66-75.	3.6	11
68	Optimization of reaction conditions and the donor substrate in the synthesis of hexyl- β -D-galactoside. <i>Process Biochemistry</i> , 2017, 58, 128-136.	3.7	11
69	ZnO Materials as Effective Anodes for the Photoelectrochemical Regeneration of Enzymatically Active NAD ⁺ . <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 10719-10727.	8.0	10
70	Comparative study of the enzymatic synthesis of cephalixin at high substrate concentration in aqueous and organic media using statistical model. <i>Biotechnology and Bioprocess Engineering</i> , 2012, 17, 711-721.	2.6	9
71	Synthesis of Ascorbyl Palmitate with Immobilized Lipase from <i>Pseudomonas stutzeri</i> . <i>JAOCS, Journal of the American Oil Chemists' Society</i> , 2014, 91, 405-410.	1.9	9
72	Evaluation of kinetic parameters of immobilized penicillin G acylase subject to an inactivation and reactivation process. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2014, 104, 70-74.	1.8	7

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73	Co-Immobilized Carrier-Free Enzymes For Lactose Upgrading. Current Opinion in Green and Sustainable Chemistry, 2021, , 100553.	5.9	7
74	Study Cases of Enzymatic Processes. , 2008, , 253-378.		5
75	Synthesis of the kyotorphin precursor benzoyl-L-tyrosine-L-argininamide with immobilized Î±-chymotrypsin in sequential batch with enzyme reactivation. Biotechnology Progress, 2016, 32, 54-59.	2.6	5
76	Enzyme Biocatalysis and Sustainability. , 2021, , 383-413.		5
77	Development of a Hybrid Bioinorganic Nanobiocatalyst: Remarkable Impact of the Immobilization Conditions on Activity and Stability of Î²-Galactosidase. Molecules, 2021, 26, 4152.	3.8	5
78	Reactor performance under thermal inactivation and temperature optimization with chitin-immobilized lactase. Progress in Biotechnology, 1998, , 27-34.	0.2	4
79	Enzymatic Production of Galacto-Oligosaccharides. , 2016, , 111-189.		4
80	Encapsulation of Combi-CLEAs of Glycosidases in Alginate Beads and Polyvinyl Alcohol for Wine Aroma Enhancement. Catalysts, 2021, 11, 866.	3.5	4
81	Effect of inactivation and reactivation conditions on activity recovery of enzyme catalysts. Electronic Journal of Biotechnology, 2013, 16, .	2.2	4
82	Catalyst Replacement Policy on Multienzymatic Systems: Theoretical Study in the One-Pot Sequential Batch Production of Lactofructose Syrup. Catalysts, 2021, 11, 1167.	3.5	3
83	Mathematical determination of kinetic parameters for assessing the effect of the organic solvent on the selectivity of peptide synthesis with immobilized Î±-chymotrypsin. Journal of Bioscience and Bioengineering, 2017, 124, 618-622.	2.2	2
84	Chapter 16. Technical Biocatalysis. RSC Catalysis Series, 2018, , 473-515.	0.1	2
85	Enzyme Reactor Design and Operation under Mass-Transfer Limitations. , 2013, , 181-202.		1
86	Mathematical Methods. , 2013, , 277-310.		0