

# Lorena Wilson

## List of Publications by Year in descending order

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86  
papers

2,822  
citations

165694

29  
h-index

182759

51  
g-index

90  
all docs

90  
docs citations

90  
times ranked

2576  
citing authors

#	ARTICLE	IF	CITATIONS
1	Recent trends in biocatalysis engineering. <i>Bioresource Technology</i> , 2012, 115, 48-57.	9.7	233
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.	3.5	132
3	Co-Aggregation of Penicillin G Acylase and Polyionic Polymers: An Easy Methodology To Prepare Enzyme Biocatalysts Stable in Organic Media. <i>Biomacromolecules</i> , 2004, 5, 852-857.	5.6	120
4	Heterofunctional Hydrophilic-Hydrophobic Porous Silica as Support for Multipoint Covalent Immobilization of Lipases: Application to Lactulose Palmitate Synthesis. <i>Langmuir</i> , 2014, 30, 3557-3566.	3.7	119
5	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.	3.3	114
6	Detailed Analysis of Galactooligosaccharides Synthesis with $\beta$ -Galactosidase from <i>Aspergillus oryzae</i> . <i>Journal of Agricultural and Food Chemistry</i> , 2013, 61, 1081-1087.	5.3	114
7	Synthesis of galacto-oligosaccharides at very high lactose concentrations with immobilized $\beta$ -galactosidases from <i>Aspergillus oryzae</i> . <i>Process Biochemistry</i> , 2011, 46, 245-252.	3.8	108
8	Cross-Linked Aggregates of Multimeric Enzymes: A Simple and Efficient Methodology To Stabilize Their Quaternary Structure. <i>Biomacromolecules</i> , 2004, 5, 814-817.	5.6	98
9	Improvement of the stability of alcohol dehydrogenase by covalent immobilization on glyoxyl-agarose. <i>Journal of Biotechnology</i> , 2006, 125, 85-94.	3.9	86
10	Stabilization of a Formate Dehydrogenase by Covalent Immobilization on Highly Activated Glyoxyl-Agarose Supports. <i>Biomacromolecules</i> , 2006, 7, 669-673.	5.6	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.	3.3	75
12	Use of chitosan heterofunctionality for enzyme immobilization: $\beta$ -galactosidase immobilization for galacto-oligosaccharide synthesis. <i>International Journal of Biological Macromolecules</i> , 2018, 116, 182-193.	7.7	66
13	Effect of lipase-lipase 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.	3.3	65
14	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.	3.3	65
15	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.	1.7	56
16	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.	8.4	50
17	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	48
18	Crosslinked Penicillin Acylase Aggregates for Synthesis of $\beta$ -Lactam Antibiotics in Organic Medium. <i>Applied Biochemistry and Biotechnology</i> , 2006, 133, 189-202.	3.0	46

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19	Hierarchical meso-macroporous silica grafted with glyoxyl groups: opportunities for covalent immobilization of enzymes. <i>New Biotechnology</i> , 2013, 30, 500-506.	4.6	41
20	Design of combined crosslinked enzyme aggregates (combi-CLEAs) of $\beta$ -galactosidase and glucose isomerase for the one-pot production of fructose syrup from lactose. <i>Food Chemistry</i> , 2019, 288, 102-107.	8.4	40
21	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.	12.2	40
22	Effect of the degree of cross-linking on the properties of different CLEAs of penicillin acylase. <i>Process Biochemistry</i> , 2009, 44, 322-326.	3.8	39
23	Improvement of Efficiency in the Enzymatic Synthesis of Lactulose Palmitate. <i>Journal of Agricultural and Food Chemistry</i> , 2015, 63, 3716-3724.	5.3	39
24	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
25	Entrapment of enzyme aggregates in chitosan beads for aroma release in white wines. <i>International Journal of Biological Macromolecules</i> , 2020, 154, 1082-1090.	7.7	38
26	Reactivation of covalently immobilized lipase from <i>Thermomyces lanuginosus</i> . <i>Process Biochemistry</i> , 2009, 44, 641-646.	3.8	37
27	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.	1.7	36
28	Enzyme Reactor Design Under Thermal Inactivation. <i>Critical Reviews in Biotechnology</i> , 2003, 23, 61-93.	9.4	34
29	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.	4.9	34
30	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.	1.7	31
31	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.	1.7	29
32	Synthesis of cephalexin in ethylene glycol with glyoxyl-agarose immobilised penicillin acylase: temperature and pH optimisation. <i>Process Biochemistry</i> , 2003, 39, 111-117.	3.8	28
33	Evaluation of the incidence of diffusional restrictions on the enzymatic reactions of hydrolysis of penicillin G and synthesis of cephalexin. <i>Enzyme and Microbial Technology</i> , 2010, 47, 268-276.	3.3	28
34	Production of combi-CLEAs of glycosidases utilized for aroma enhancement in wine. <i>Food and Bioproducts Processing</i> , 2015, 94, 555-560.	3.7	28
35	Improvement of Chitosan Derivatization for the Immobilization of <i>Bacillus circulans</i> $\beta$ -Galactosidase and Its Further Application in Galacto-oligosaccharide Synthesis. <i>Journal of Agricultural and Food Chemistry</i> , 2014, 62, 10126-10135.	5.3	27
36	Aroma Release in Wine Using Co-Immobilized Enzyme Aggregates. <i>Molecules</i> , 2016, 21, 1485.	3.9	27

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37	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.	4.9	26
38	Bio-inspired silica lipase nanobiocatalysts for the synthesis of fatty acid methyl esters. <i>Process Biochemistry</i> , 2018, 74, 86-93.	3.8	25
39	Effect of enzyme load and catalyst particle size on the diffusional restrictions in reactions of synthesis and hydrolysis catalyzed by L-lysine-chymotrypsin immobilized into glyoxal-agarose. <i>Process Biochemistry</i> , 2017, 53, 172-179.	3.8	24
40	Synthesis with Immobilized Lipases and Downstream Processing of Ascorbyl Palmitate. <i>Molecules</i> , 2019, 24, 3227.	3.9	23
41	Simple strategy of reactivation of a partially inactivated penicillin G acylase biocatalyst in organic solvent and its impact on the synthesis of $\beta$ -lactam antibiotics. <i>Biotechnology and Bioengineering</i> , 2009, 103, 472-479.	3.5	21
42	Synthesis of Cephalexin in Aqueous Medium with Carrier-bound and Carrier-free Penicillin Acylase Biocatalysts. <i>Applied Biochemistry and Biotechnology</i> , 2009, 157, 98-110.	3.0	21
43	Effect of particle size distribution on the simulation of immobilized enzyme reactor performance. <i>Biochemical Engineering Journal</i> , 2010, 49, 256-263.	3.8	21
44	Batch reactor performance for the enzymatic synthesis of cephalexin: influence of catalyst enzyme loading and particle size. <i>New Biotechnology</i> , 2012, 29, 218-226.	4.6	21
45	Diffusional restrictions in glyoxyl-agarose immobilized penicillin G acylase of different particle size and protein loading. <i>Electronic Journal of Biotechnology</i> , 2010, 13, .	2.3	20
46	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.	3.3	19
47	Influence of chitosan derivatization on its physicochemical characteristics and its use as enzyme support. <i>Journal of Applied Polymer Science</i> , 2014, 131, .	2.7	17
48	Simultaneous synthesis and purification (SSP) of galacto-oligosaccharides in batch operation. <i>LWT - Food Science and Technology</i> , 2016, 72, 81-89.	5.3	16
49	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.	3.7	16
50	Parameters for the Evaluation of Immobilized Enzymes Under Process Conditions. <i>Methods in Molecular Biology</i> , 2020, 2100, 65-81.	0.0	16
51	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.	3.0	15
52	Co-immobilized $\beta$ -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.	3.3	15
53	Carrier-bound and carrier-free penicillin acylase biocatalysts for the thermodynamically controlled synthesis of $\beta$ -lactam compounds in organic medium. <i>Enzyme and Microbial Technology</i> , 2008, 43, 442-447.	3.3	14
54	In situ immobilization of $\beta$ -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.	4.0	14

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55	Synthesis of propyl- $\beta$ -D-galactoside with free and immobilized $\beta$ -galactosidase from <i>Aspergillus oryzae</i> . <i>Process Biochemistry</i> , 2017, 53, 162-171.	3.8	14
56	Heterogeneous Enzyme Kinetics. , 2008, , 155-203.		14
57	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.	10.7	12
58	Optimization of reaction conditions and the donor substrate in the synthesis of hexyl- $\beta$ -D-galactoside. <i>Process Biochemistry</i> , 2017, 58, 128-136.	3.8	12
59	Homogeneous Enzyme Kinetics. , 2008, , 107-153.		12
60	Reactivation of immobilized penicillin G acylase: Influence of cosolvents and catalytic modulators. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2011, 68, 77-82.	1.7	11
61	Synthesis of butyl- $\beta$ -D-galactoside with commercial $\beta$ -galactosidases. <i>Food and Bioprocess Processing</i> , 2017, 103, 66-75.	3.7	11
62	ZnO Materials as Effective Anodes for the Photoelectrochemical Regeneration of Enzymatically Active NAD <sup>+</sup> . <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 10719-10727.	8.3	11
63	Synthesis of Ascorbyl Palmitate with Immobilized Lipase from <i>Pseudomonas stutzeri</i> . <i>JAACS, Journal of the American Oil Chemists' Society</i> , 2014, 91, 405-410.	1.9	10
64	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
65	Co-immobilized carrier-free enzymes for lactose upgrading. <i>Current Opinion in Green and Sustainable Chemistry</i> , 2022, 33, 100553.	6.3	9
66	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.	1.7	7
67	Enzymatic Synthesis of Ascorbyl Palmitate in a Rotating Bed Reactor. <i>Molecules</i> , 2023, 28, 644.	3.9	6
68	Study Cases of Enzymatic Processes. , 2008, , 253-378.		5
69	Synthesis of the kyotorphin precursor benzoyl-L-tyrosine-L-argininamide with immobilized $\beta$ -chymotrypsin in sequential batch with enzyme reactivation. <i>Biotechnology Progress</i> , 2016, 32, 54-59.	2.6	5
70	Enzyme Biocatalysis and Sustainability. , 2021, , 383-413.		5
71	Encapsulation of Combi-CLEAs of Glycosidases in Alginate Beads and Polyvinyl Alcohol for Wine Aroma Enhancement. <i>Catalysts</i> , 2021, 11, 866.	3.6	5
72	Development of a Hybrid Bioinorganic Nanobiocatalyst: Remarkable Impact of the Immobilization Conditions on Activity and Stability of $\beta$ -Galactosidase. <i>Molecules</i> , 2021, 26, 4152.	3.9	5

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73	Catalyst Replacement Policy on Multienzymatic Systems: Theoretical Study in the One-Pot Sequential Batch Production of Lactofructose Syrup. <i>Catalysts</i> , 2021, 11, 1167.	3.6	4
74	Effect of inactivation and reactivation conditions on activity recovery of enzyme catalysts. <i>Electronic Journal of Biotechnology</i> , 2013, 16, .	2.3	4
75	Enzyme Reactor Design and Operation under Mass Transfer Limitations. , 2013, , 181-202.		2
76	Mathematical determination of kinetic parameters for assessing the effect of the organic solvent on the selectivity of peptide synthesis with immobilized L-chymotrypsin. <i>Journal of Bioscience and Bioengineering</i> , 2017, 124, 618-622.	2.2	2
77	Chapter 16. Technical Biocatalysis. <i>RSC Catalysis Series</i> , 2018, , 473-515.	0.0	2
78	Enzyme Reactor Design and Operation under Ideal Conditions. , 2013, , 141-180.		0
79	Enzyme Kinetics in a Homogeneous System. , 2013, , 11-86.		0
80	Enzyme Kinetics in a Heterogeneous System. , 2013, , 87-140.		0
81	Facts and Figures in Enzyme Biocatalysis. , 2013, , 1-10.		0
82	Enzyme Reactor Design and Operation under Biocatalyst Inactivation. , 2013, , 203-242.		0
83	Optimization of Enzyme Reactor Operation. , 2013, , 243-276.		0
84	One-Pot Heterogeneous Biocatalysis under Thermal Decay for Fructose Production from Lactose using Co-Immobilized Enzymes: Modeling and Simulation. <i>ChemCatChem</i> , 2024, 16, .	3.8	0
85	One-Pot Heterogeneous Biocatalysis under Thermal Decay for Fructose Production from Lactose using Co-Immobilized Enzymes: Modeling and Simulation. <i>ChemCatChem</i> , 2024, 16, .	3.8	0
86	Amination of naringinase to improve citrus juice debittering using a catalyst immobilized on glyoxyl-agarose. <i>Food Chemistry</i> , 2024, 452, 139600.	8.4	0