Lucia Gardossi

List of Publications by Year
in descending order

89	3,690	236925 25	133252 59
papers	citations	h-index	g-index

89	89	89	4328
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Understanding enzyme immobilisation. Chemical Society Reviews, 2009, 38, 453-468.	38.1	1,124
2	Efficient immobilisation of industrial biocatalysts: criteria and constraints for the selection of organic polymeric carriers and immobilisation methods. Chemical Society Reviews, 2013, 42, 6262.	38.1	397
3	Guidelines for reporting of biocatalytic reactions. Trends in Biotechnology, 2010, 28, 171-180.	9.3	144
4	Renewable building blocks for sustainable polyesters: new biotechnological routes for greener plastics. Polymer International, 2016, 65, 861-871.	3.1	127
5	Renewable polymers and plastics: Performance beyond the green. New Biotechnology, 2021, 60, 146-158.	4.4	113
6	The Closure of the Cycle: Enzymatic Synthesis and Functionalization of Bio-Based Polyesters. Trends in Biotechnology, 2016, 34, 316-328.	9.3	107
7	Evolving biocatalysis to meet bioeconomy challenges and opportunities. New Biotechnology, 2018, 40, 154-169.	4.4	99
8	Selective acylation of peptides catalyzed by lipases in organic solvents. Journal of the American Chemical Society, 1991, 113, 6328-6329.	13.7	77
9	Towards feasible and scalable solvent-free enzymatic polycondensations: integrating robust biocatalysts with thin film reactions. Green Chemistry, 2015, 17, 1756-1766.	9.0	72
10	Understanding Potentials and Restrictions of Solventâ€Free Enzymatic Polycondensation of Itaconic Acid: An Experimental and Computational Analysis. Advanced Synthesis and Catalysis, 2015, 357, 1763-1774.	4.3	67
11	In Silico Analysis of Enzyme Surface and Glycosylation Effect as a Tool for Efficient Covalent Immobilisation of CalB and PGA on SepabeadsÂ®. Advanced Synthesis and Catalysis, 2007, 349, 877-886.	4.3	53
12	Conformational Changes of Lipases in Aqueous Media: A Comparative Computational Study and Experimental Implications. Advanced Synthesis and Catalysis, 2011, 353, 2466-2480.	4.3	44
13	Nature Inspired Solutions for Polymers: Will Cutinase Enzymes Make Polyesters and Polyamides Greener?. Catalysts, 2016, 6, 205.	3.5	42
14	Enzyme-catalyzed functionalization of poly(L-lactic acid) for drug delivery applications. Process Biochemistry, 2017, 59, 77-83.	3.7	42
15	Functionalization of Enzymatically Synthesized Rigid Poly(itaconate)s via Postâ€Polymerization Azaâ€Michael Addition of Primary Amines. Advanced Synthesis and Catalysis, 2019, 361, 2559-2573.	4.3	37
16	Computational methods to rationalize experimental strategies in biocatalysis. Trends in Biotechnology, 2006, 24, 419-425.	9.3	36
17	High isolated yields in thermodynamically controlled peptide synthesis in toluene catalysed by thermolysin adsorbed on Celite R-640. Chemical Communications, 2000, , 467-468.	4.1	33
18	Rice Husk as an Inexpensive Renewable Immobilization Carrier for Biocatalysts Employed in the Food, Cosmetic and Polymer Sectors. Catalysts, 2018, 8, 471.	3.5	33

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19	Endoâ€•and exoâ€inulinases: Enzymeâ€substrate interaction and rational immobilization. Biotechnology Progress, 2010, 26, 397-405.	2.6	32
20	Synthesis of octyl glucopyranoside by almond Î²-glucosidase adsorbed onto Celite R-640Â®. Tetrahedron Letters, 2002, 43, 2005-2008.	1.4	30
21	d-Phenylglycine and d-4-hydroxyphenylglycine methyl esters via penicillin G acylase catalysed resolution in organic solvents. Tetrahedron: Asymmetry, 2000, 11, 1789-1796.	1.8	29
22	A Threeâ€Dimensional Quanititative Structureâ€Activity Relationship (3Dâ€QSAR) Model for Predicting the Enantioselectivity of Candida antarctica Lipase B. Advanced Synthesis and Catalysis, 2009, 351, 1293-1302.	4.3	29
23	Fructose Production by Inulinase Covalently Immobilized on Sepabeads in Batch and Fluidized Bed Bioreactor. International Journal of Molecular Sciences, 2010, 11, 1180-1189.	4.1	29
24	Fully renewable polyesters via polycondensation catalyzed by Thermobifida cellulosilytica cutinase 1: an integrated approach. Green Chemistry, 2017, 19, 490-502.	9.0	29
25	Resolution of (R,S)-flurbiprofen catalysed by dry mycelia in organic solvent. Tetrahedron, 2007, 63, 11005-11010.	1.9	27
26	Control of enzyme hydration in penicillin amidase catalysed synthesis of amide bond. Tetrahedron Letters, 1996, 37, 9377-9380.	1.4	26
27	Enzymatic modification of fullerene derivatives. Tetrahedron Letters, 1998, 39, 7791-7794.	1.4	25
28	A novel support for enzyme adsorption: properties and applications of aerogels in low water media. Tetrahedron Letters, 2000, 41, 8627-8630.	1.4	24
29	Exploring mild enzymatic sustainable routes for the synthesis of bioâ€degradable aromaticâ€aliphatic oligoesters. Biotechnology Journal, 2016, 11, 642-647.	3.5	24
30	Improved biotransformations on charged PEGA supports. Chemical Communications, 2003, , 1296.	4.1	23
31	In Silico Prediction of Medium Effects on Esterification Equilibrium Using the COSMO-RS Method. Biotechnology Progress, 2006, 22, 1146-1152.	2.6	23
32	Bacillus subtilis Lipase Aâ€"Lipase or Esterase?. Catalysts, 2020, 10, 308.	3.5	21
33	Penicillin G amidase in low-water media: immobilisation and control of water activity by means of celite rods. Journal of Molecular Catalysis B: Enzymatic, 1999, 6, 437-445.	1.8	20
34	Kinetically controlled synthesis of ampicillin and cephalexin in highly condensed systems in the absence of a liquid aqueous phase. Journal of Molecular Catalysis B: Enzymatic, 2006, 39, 105-111.	1.8	20
35	Properties and applications of supports for enzyme-mediated transformations in solid phase synthesis. Journal of Chemical Technology and Biotechnology, 2006, 81, 1626-1640.	3.2	20
36	One-step stereospecific synthesis of Î±,Î²-dehydroamino acids and dehydropeptides.. Tetrahedron Letters, 1992, 33, 8145-8148.	1.4	19

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37	Improved lipase-mediated resolution of mandelic acid esters by multivariate investigation of experimental factors. Tetrahedron: Asymmetry, 1992, 3, 903-912.	1.8	19
38	Solvent selection for solid-to-solid synthesis. Biotechnology and Bioengineering, 2002, 80, 509-515.	3.3	19
39	Nonswelling Macroporous Synbeads for Improved Efficiency of Solid-Phase Biotransformations. Chemistry - A European Journal, 2004, 10, 1007-1013.	3.3	19
40	Lipases Immobilization for Effective Synthesis of Biodiesel Starting from Coffee Waste Oils. Biomolecules, 2013, 3, 514-534.	4.0	19
41	Activity of covalently immobilised PGA in water miscible solvents at controlled aw. Journal of Molecular Catalysis B: Enzymatic, 2001, 11, 851-855.	1.8	18
42	Organically modified xerogels as novel tailor-made supports for covalent immobilisation of enzymes (penicillin G acylase). Tetrahedron Letters, 2003, 44, 5889-5891.	1.4	18
43	Quantitative enzymatic protection of d-amino acid methyl esters by exploiting â€˜relaxedâ€™ enantioselectivity of penicillin-G amidase in organic solvent. Tetrahedron Letters, 2004, 45, 9649-9652.	1.4	18
44	Enzymatic resolution of 4-N-phenylacetylamino-derivatives obtained from multicomponent reactions using PenG amidase and in silico studies. Tetrahedron, 2004, 60, 683-691.	1.9	18
45	BioGPS Descriptors for Rational Engineering of Enzyme Promiscuity and Structure Based Bioinformatic Analysis. PLoS ONE, 2014, 9, e109354.	2.5	18
46	Biocatalysis in Reaction Mixtures with Undissolved Solid Substrates and Products. Current Organic Chemistry, 2003, 7, 1333-1346.	1.6	18
47	Influence of organic solvents on enzyme chemoselectivity and their role in enzyme-substrate interaction. Tetrahedron, 1996, 52, 4867-4876.	1.9	17
48	High isolated yields in thermolysin-catalysed synthesis of Z-l-aspartyl-l-phenylalanine methyl ester in toluene at controlled water activity. Tetrahedron Letters, 2001, 42, 3395-3397.	1.4	17
49	Preparation of d-amino acids by enzymatic kinetic resolution using a mutant of penicillin-G acylase from E. coli. Tetrahedron: Asymmetry, 2006, 17, 245-251.	1.8	17
50	Enzymatic kinetic resolution of hydroxystearic acids: A combined experimental and molecular modelling investigation. Journal of Molecular Catalysis B: Enzymatic, 2012, 83, 38-45.	1.8	17
51	Structural bases for understanding the stereoselectivity in ketone reductions with ADH from Thermus thermophilus: A quantitative model. Journal of Molecular Catalysis B: Enzymatic, 2011, 70, 23-31.	1.8	16
52	A biorefinery approach for the conversion of Cynara cardunculus biomass to active films. Food Hydrocolloids, 2022, 122, 107099.	10.7	16
53	Volsurf computational method applied to the prediction of stability of thermostable enzymes. Biotechnology Journal, 2007, 2, 214-220.	3.5	15
54	Controlling the hydration of covalently immobilised penicillin G amidase in low-water medium: properties and use of Celite R-640. Journal of Molecular Catalysis B: Enzymatic, 2000, 8, 245-253.	1.8	14

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55	Introduction of permanently charged groups into PEGA resins leads to improved biotransformations on solid support. Tetrahedron, 2004, 60, 589-594.	1.9	14
56	Kinetic resolution of (R, S)-1,2-O-isopropylideneglycerol by esterification with dry mycelia of moulds. Journal of Molecular Catalysis B: Enzymatic, 2006, 41, 71-74.	1.8	14
57	High-level production and covalent immobilization ofProvidencia rettgeri penicillin G acylase (PAC) from recombinantPichia pastoris for the development of a novel and stable biocatalyst of industrial applicability. Biotechnology and Bioengineering, 2006, 93, 344-354.	3.3	14
58	Thermal Upgrade of Enzymatically Synthesized Aliphatic and Aromatic Oligoesters. Materials, 2020, 13, 368.	2.9	14
59	Activity of immobilised penicillin amidase in toluene at controlled water activity. Journal of Molecular Catalysis B: Enzymatic, 1998, 5, 241-244.	1.8	13
60	3D-QSAR Applied to the Quantitative Prediction of Penicillin G Amidase Selectivity. Advanced Synthesis and Catalysis, 2006, 348, 773-780.	4.3	13
61	GRID/tetrahedral intermediate computational approach to the study of selectivity of penicillin G acylase in amide bond synthesis. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2002, 1601, 85-92.	2.3	12
62	Enzymatic regioselective deprotection of peracetylated mono- and disaccharides. Journal of Molecular Catalysis B: Enzymatic, 1999, 6, 89-94.	1.8	11
63	Organically modified xerogels as supports for solid-phase chemistry. Tetrahedron Letters, 2003, 44, 6083-6085.	1.4	11
64	An innovative application of the "flexible" GRID/PCA computational method: study of differences in selectivity between PGAs from Escherichia coli and a Providentia rettgeri mutant. Biotechnology Progress, 2004, 20, 1025-1031.	2.6	11
65	Optimized polymerâ€“enzyme electrostatic interactions significantly improve penicillin G amidase efficiency in charged PEGA polymers. Tetrahedron, 2005, 61, 971-976.	1.9	11
66	Synbeads Porous-Rigid Methacrylic Support: Application to Solid Phase Peptide Synthesis and Characterization of the Polymeric Matrix by FTIR Microspectroscopy and High Resolution Magic Angle Spinning NMR. ACS Combinatorial Science, 2009, 11, 835-845.	3.3	11
67	Investigating the Role of Conformational Effects on Laccase Stability and Hyperactivation under Stress Conditions. ChemBioChem, 2015, 16, 2365-2372.	2.6	11
68	Azelaic Acid: A Bio-Based Building Block for Biodegradable Polymers. Polymers, 2021, 13, 4091.	4.5	11
69	Computational analysis of the aminic subsite of PGA explains the influence of amine structure on enantioselectivity. Journal of Molecular Catalysis B: Enzymatic, 2002, 19-20, 423-430.	1.8	10
70	Immobilization of Arabidopsis thaliana Hydroxynitrile Lyase (AtHNL) on EziG Opal. Catalysts, 2020, 10, 899.	3.5	10
71	An integrated platform for automatic design and screening of virtual mutants based on 3D-QSAR analysis. Journal of Molecular Catalysis B: Enzymatic, 2014, 101, 7-15.	1.8	9
72	Glutaryl-7-ACA acylase catalyses the synthesis of amide bond in heterogeneous substrate mixtures. Journal of Molecular Catalysis B: Enzymatic, 2002, 19-20, 135-141.	1.8	8

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73	Turning biomass into functional composite materials: Rice husk for fully renewable immobilized biocatalysts. EFB Bioeconomy Journal, 2021, 1, 100008.	2.4	8
74	Selectivity of penicillin G acylase towards phenylacetic acid derivatives in amide bond synthesis in toluene. Journal of Molecular Catalysis B: Enzymatic, 2001, 16, 73-80.	1.8	7
75	A Homology Model of Penicillin Acylase from Alcaligenes faecalis and In Silico Evaluation of its Selectivity. ChemBioChem, 2003, 4, 615-622.	2.6	7
76	Modelling and Predicting Enzyme Enantioselectivity: the Aid of Computational Methods for the Rational use of Lipase B from Candida antarctica. Current Biotechnology, 2015, 4, 87-99.	0.4	7
77	Rational Guidelines for the Twoâ€Step Scalability of Enzymatic Polycondensation: Experimental and Computational Optimization of the Enzymatic Synthesis of Poly(glycerolazelate). ChemSusChem, 2022, 15, .	6.8	6
78	Chemical regioselective hydrolysis of peracetylated reducing disaccharides, specifically at the anomeric centre: Intermediates for the synthesis of oligosaccharides. Tetrahedron Letters, 1994, 35, 4247-4250.	1.4	5
79	Penicillin G Amidase-Catalysed Hydrolysis of Phenylacetic Hydrazides on a Solid Phase: A New Route to Enzyme-Cleavable Linkers. Advanced Synthesis and Catalysis, 2005, 347, 963-966.	4.3	5
80	Elucidating the structural and conformational factors responsible for the activity and substrate specificity of alkanesulfonate monooxygenase. Journal of Biomolecular Structure and Dynamics, 2012, 30, 74-88.	3.5	5
81	BESSICC, a COSMOâ€RS based tool for in silico solvent screening of biocatalyzed reactions. Biotechnology and Bioengineering, 2012, 109, 1864-1868.	3.3	4
82	Lipase mediated enzymatic kinetic resolution of phenylethyl halohydrins acetates: A case of study and rationalization. Molecular Catalysis, 2020, 485, 110819.	2.0	4
83	Effect of Microwave Radiation on Enzymatic and Chemical Peptide Bond Synthesis on Solid Phase. International Journal of Peptides, 2009, 2009, 1-4.	0.7	3
84	Effect of Binding Modules Fused to Cutinase on the Enzymatic Synthesis of Polyesters. Catalysts, 2022, 12, 303.	3.5	3
85	Chemoselectivity and enhanced activity of poly(ethylene glycol)-modified lipases acylating hydrophilic aminoacid derivatives in organic solvents. Biotechnology Letters, 1994, 8, 811-816.	0.5	2
86	Navigating within thiamine diphosphateâ€dependent decarboxylases: Sequences, structures, functional positions, and binding sites. Proteins: Structure, Function and Bioinformatics, 2019, 87, 774-785.	2.6	2
87	Criteria for Engineering Cutinases: Bioinformatics Analysis of Catalophores. Catalysts, 2021, 11, 784.	3.5	2
88	Thermodynamic analysis of enzyme enantioselectivity: a statistical approach by means of new differential HybridMIF descriptors. Biocatalysis and Biotransformation, 2013, 31, 272-280.	2.0	1
89	Integrating computational and experimental methods for efficient biocatalytic synthesis of polyesters. Methods in Enzymology, 2019, 627, 23-55.	1.0	1