Aurelio Hidalgo

List of Publications by Year
in descending order

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Version: 2024-02-01

65 papers	3,395 citations	136950 32 h-index	138484 58 g-index
66 all docs	66 docs citations	66 times ranked	3407 citing authors

#	Article	IF	Citations
1	Ultrahigh-Throughput Screening of Metagenomic Libraries Using Droplet Microfluidics. Methods in Molecular Biology, 2022, 2397, 19-32.	0.9	3
2	A Coupled Ketoreductaseâ€Ð¡iaphorase Assay for the Detection of Polyethylene Terephthalateâ€Hydrolyzing Activity. ChemSusChem, 2022, 15, .	6.8	3
3	Biochemical and Structural Characterization of a novel thermophilic esterase EstD11 provide catalytic insights for the HSL family. Computational and Structural Biotechnology Journal, 2021, 19, 1214-1232.	4.1	17
4	Insights into the molecular determinants of thermal stability in halohydrin dehalogenase HheD2. FEBS Journal, 2021, 288, 4683-4701.	4.7	5
5	Thermostability Engineering of a Class II Pyruvate Aldolase from Escherichia coli by in Vivo Folding Interference. ACS Sustainable Chemistry and Engineering, 2021, 9, 5430-5436.	6.7	14
6	Thermostability enhancement of the Pseudomonas fluorescens esterase I by in vivo folding selection in Thermus thermophilus. Biotechnology and Bioengineering, 2020, 117, 30-38.	3.3	8
7	Hypoxanthine-Guanine Phosphoribosyltransferase/adenylate Kinase From Zobellia galactanivorans: A Bifunctional Catalyst for the Synthesis of Nucleoside-5â€²-Mono-, Di- and Triphosphates. Frontiers in Bioengineering and Biotechnology, 2020, 8, 677.	4.1	9
8	Stabilization of Multimeric Enzymes via Immobilization and Further Cross-Linking with Aldehyde-Dextran. Methods in Molecular Biology, 2020, 2100, 175-187.	0.9	10
9	Intraparticle pH Sensing Within Immobilized Enzymes: Immobilized Yellow Fluorescent Protein as Optical Sensor for Spatiotemporal Mapping of pH Inside Porous Particles. Methods in Molecular Biology, 2020, 2100, 319-333.	0.9	1
10	Functional Characterization and Structural Analysis of NADH Oxidase Mutants from Thermus thermophilus HB27: Role of Residues 166, 174, and 194 in the Catalytic Properties and Thermostability. Microorganisms, 2019, 7, 515.	3.6	2
11	A Modular Vector Toolkit with a Tailored Set of Thermosensors To Regulate Gene Expression in Thermus thermophilus. ACS Omega, 2019, 4, 14626-14632.	3.5	10
12	Biobased, Internally pH-Sensitive Materials: Immobilized Yellow Fluorescent Protein as an Optical Sensor for Spatiotemporal Mapping of pH Inside Porous Matrices. ACS Applied Materials & Interfaces, 2018, 10, 6858-6868.	8.0	18
13	A Brief Guide to the High-Throughput Expression of Directed Evolution Libraries. Methods in Molecular Biology, 2018, 1685, 131-143.	0.9	0
14	Are inÂvivo selections on the path to extinction?. Microbial Biotechnology, 2017, 10, 46-49.	4.2	1
15	Stabilization of Enzymes by Using Thermophiles. Methods in Molecular Biology, 2017, 1645, 297-312.	0.9	12
16	A novel thermostable protein-tag: optimization of the Sulfolobus solfataricus DNA- alkyl-transferase by protein engineering. Extremophiles, 2016, 20, 1-13.	2.3	21
17	Parallel Pathways for Nitrite Reduction during Anaerobic Growth in Thermus thermophilus. Journal of Bacteriology, 2014, 196, 1350-1358.	2.2	7
18	Transferable Denitrification Capability of Thermus thermophilus. Applied and Environmental Microbiology, 2014, 80, 19-28.	3.1	36

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19	One-Pot Simple Methodology for Cassette Randomization and Recombination for Focused Directed Evolution (OSCARR). Methods in Molecular Biology, 2014, 1179, 207-212.	0.9	9
20	Engineering the Substrate Specificity of a Thermophilic Penicillin Acylase from Thermus thermophilus. Applied and Environmental Microbiology, 2013, 79, 1555-1562.	3.1	12
21	Promiscuous enantioselective (â^')-Î³-lactamase activity in the Pseudomonas fluorescens esterase I. Organic and Biomolecular Chemistry, 2012, 10, 3388.	2.8	29
22	Functional expression of a penicillin acylase from the extreme thermophile Thermus thermophilus HB27 in Escherichia coli. Microbial Cell Factories, 2012, 11, 105.	4.0	12
23	The residue 179 is involved in product specificity of the Bacillus circulans DF 9R cyclodextrin glycosyltransferase. Applied Microbiology and Biotechnology, 2012, 94, 123-130.	3.6	18
24	Characterization and further stabilization of a new anti-prelog specific alcohol dehydrogenase from Thermus thermophilus HB27 for asymmetric reduction of carbonyl compounds. Bioresource Technology, 2012, 103, 343-350.	9.6	40
25	Modulation of the distribution of small proteins within porous matrixes by smart-control of the immobilization rate. Journal of Biotechnology, 2011, 155, 412-420.	3.8	61
26	Cloning, functional expression, biochemical characterization, and structural analysis of a haloalkane dehalogenase from Plesiocystis pacifica SIR-1. Applied Microbiology and Biotechnology, 2011, 91, 1049-1060.	3.6	36
27	New biotechnological perspectives of a NADH oxidase variant from Thermus thermophilus HB27 as NAD+-recycling enzyme. BMC Biotechnology, 2011, 11, 101.	3.3	45
28	Suppression of Water as a Nucleophile in Candida antarctica Lipase B Catalysis. ChemBioChem, 2010, 11, 796-801.	2.6	37
29	Increased Enantioselectivity by Engineering Bottleneck Mutants in an Esterase from Pseudomonas fluorescens. ChemBioChem, 2009, 10, 2920-2923.	2.6	22
30	Thermus thermophilus as biological model. Extremophiles, 2009, 13, 213-231.	2.3	145
31	Reversible Immobilization of Glutaryl Acylase on Sepabeads Coated with Polyethyleneimine. Biotechnology Progress, 2008, 20, 533-536.	2.6	23
32	A one-pot, simple methodology for cassette randomisation and recombination for focused directed evolution. Protein Engineering, Design and Selection, 2008, 21, 567-576.	2.1	34
33	Enhancement of the Stability of a Prolipase from Rhizopus oryzae toward Aldehydes by Saturation Mutagenesis. Applied and Environmental Microbiology, 2007, 73, 7291-7299.	3.1	28
34	Stabilization of different alcohol oxidases via immobilization and post immobilization techniques. Enzyme and Microbial Technology, 2007, 40, 278-284.	3.2	66
35	A versatile esterase fromBacillus subtilis: Cloning, expression, characterization, and its application in biocatalysis. Biotechnology Journal, 2007, 2, 249-253.	3.5	33
36	Preparation of a very stable immobilized biocatalyst of glucose oxidase from Aspergillus niger. Journal of Biotechnology, 2006, 121, 284-289.	3.8	78

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37	Stabilization of Multimeric Enzymes Via Immobilization and Further Cross-Linking With Aldehyde-Dextran. Methods in Biotechnology, 2006, , 129-141.	0.2	5
38	Glyoxyl agarose: A fully inert and hydrophilic support for immobilization and high stabilization of proteins. Enzyme and Microbial Technology, 2006, 39, 274-280.	3.2	347
39	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.	3.2	36
40	Different mechanisms of protein immobilization on glutaraldehyde activated supports: Effect of support activation and immobilization conditions. Enzyme and Microbial Technology, 2006, 39, 877-882.	3.2	361
41	Immobilization of enzymes in microtiter plate scale. Biotechnology Journal, 2006, 1, 582-587.	3.5	15
42	Immobilization and Stabilization of Proteins by Multipoint Covalent Attachment on Novel Amino-Epoxy-SepabeadsÂ®. Methods in Biotechnology, 2006, , 153-162.	0.2	1
43	Selectivity of lipases and esterases towards phenol esters. Journal of Molecular Catalysis B: Enzymatic, 2005, 36, 8-13.	1.8	14
44	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.	3.2	69
45	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
46	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
47	One-Pot Conversion of Cephalosporin C to 7-Aminocephalosporanic Acid in the Absence of Hydrogen Peroxide. Advanced Synthesis and Catalysis, 2005, 347, 1804-1810.	4.3	52
48	Heterologous Production of Functional Forms of Rhizopus oryzae Lipase in Escherichia coli. Applied and Environmental Microbiology, 2005, 71, 8974-8977.	3.1	44
49	Enzyme stabilization by glutaraldehyde crosslinking of adsorbed proteins on aminated supports. Journal of Biotechnology, 2005, 119, 70-75.	3.8	259
50	Advantages of the Pre-Immobilization of Enzymes on Porous Supports for Their Entrapment in Solâ˜Gels. Biomacromolecules, 2005, 6, 1027-1030.	5.4	51
51	Co-aggregation of Enzymes and Polyethyleneimine:Â A Simple Method To Prepare Stable and Immobilized Derivatives of Glutaryl Acylase. Biomacromolecules, 2005, 6, 1839-1842.	5.4	96
52	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.	3.1	46
53	Use of an Antisense RNA Strategy To Investigate the Functional Significance of Mn-Catalase in the Extreme Thermophile Thermus thermophilus. Journal of Bacteriology, 2004, 186, 7804-7806.	2.2	11
54	Purification of a Catalase from Thermus thermophilus via IMAC Chromatography: Effect of the Support. Biotechnology Progress, 2004, 20, 1578-1582.	2.6	8

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55	Determination of protein-protein interactions through aldehyde-dextran intermolecular cross-linking. Proteomics, 2004, 4, 2602-2607.	2.2	69
56	Cross-Linked Aggregates of Multimeric Enzymes:Â A Simple and Efficient Methodology To Stabilize Their Quaternary Structure. Biomacromolecules, 2004, 5, 814-817.	5.4	95
57	Prevention of interfacial inactivation of enzymes by coating the enzyme surface with dextran-aldehyde. Journal of Biotechnology, 2004, 110, 201-207.	3.8	68
58	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.	3.8	48
59	Epoxy-Amino Groups:Â A New Tool for Improved Immobilization of Proteins by the Epoxy Method. Biomacromolecules, 2003, 4, 772-777.	5.4	234
60	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.	3.2	50
61	Use of Physicochemical Tools to Determine the Choice of Optimal Enzyme: Stabilization of -Amino Acid Oxidase. Biotechnology Progress, 2003, 19, 784-788.	2.6	63
62	Preparation of a Stable Biocatalyst of Bovine Liver Catalase Using Immobilization and Postimmobilization Techniques. Biotechnology Progress, 2003, 19, 763-767.	2.6	87
63	Degradation of phenol by Rhodococcus erythropolis UPV-1 immobilized on BioliteÂ® in a packed-bed reactor. Journal of Biotechnology, 2002, 97, 1-11.	3.8	98
64	Biodegradation of phenol in synthetic and industrial wastewater by Rhodococcus erythropolis UPV-1 immobilized in an air-stirred reactor with clarifier. Applied Microbiology and Biotechnology, 2002, 58, 853-860.	3.6	65
65	Biological treatment of phenolic industrial wastewaters by Rhodococcus erythropolis UPV-1. Enzyme and Microbial Technology, 2002, 31, 221-226.	3.2	25