Aurelio Hidalgo

List of Publications by Year
in descending order

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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	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
2	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
3	Enzyme stabilization by glutaraldehyde crosslinking of adsorbed proteins on aminated supports. Journal of Biotechnology, 2005, 119, 70-75.	3.8	259
4	Epoxy-Amino Groups:Â A New Tool for Improved Immobilization of Proteins by the Epoxy Method. Biomacromolecules, 2003, 4, 772-777.	5.4	234
5	Thermus thermophilus as biological model. Extremophiles, 2009, 13, 213-231.	2.3	145
6	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
7	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
8	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
9	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
10	Preparation of a Stable Biocatalyst of Bovine Liver Catalase Using Immobilization and Postimmobilization Techniques. Biotechnology Progress, 2003, 19, 763-767.	2.6	87
11	Preparation of a very stable immobilized biocatalyst of glucose oxidase from Aspergillus niger. Journal of Biotechnology, 2006, 121, 284-289.	3.8	78
12	Determination of protein-protein interactions through aldehyde-dextran intermolecular cross-linking. Proteomics, 2004, 4, 2602-2607.	2.2	69
13	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
14	Prevention of interfacial inactivation of enzymes by coating the enzyme surface with dextran-aldehyde. Journal of Biotechnology, 2004, 110, 201-207.	3.8	68
15	Stabilization of different alcohol oxidases via immobilization and post immobilization techniques. Enzyme and Microbial Technology, 2007, 40, 278-284.	3.2	66
16	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
17	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
18	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

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19	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
20	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
21	Advantages of the Pre-Immobilization of Enzymes on Porous Supports for Their Entrapment in Solâ˜Gels. Biomacromolecules, 2005, 6, 1027-1030.	5.4	51
22	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
23	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
24	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
25	New biotechnological perspectives of a NADH oxidase variant from Thermus thermophilus HB27 as NAD+-recycling enzyme. BMC Biotechnology, 2011, 11, 101.	3.3	45
26	Heterologous Production of Functional Forms of Rhizopus oryzae Lipase in Escherichia coli. Applied and Environmental Microbiology, 2005, 71, 8974-8977.	3.1	44
27	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
28	Suppression of Water as a Nucleophile in Candida antarctica Lipase B Catalysis. ChemBioChem, 2010, 11, 796-801.	2.6	37
29	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
30	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
31	Transferable Denitrification Capability of Thermus thermophilus. Applied and Environmental Microbiology, 2014, 80, 19-28.	3.1	36
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	A versatile esterase fromBacillus subtilis: Cloning, expression, characterization, and its application in biocatalysis. Biotechnology Journal, 2007, 2, 249-253.	3.5	33
34	Promiscuous enantioselective (â˜)-Î³-lactamase activity in the Pseudomonas fluorescens esterase I. Organic and Biomolecular Chemistry, 2012, 10, 3388.	2.8	29
35	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
36	Biological treatment of phenolic industrial wastewaters by Rhodococcus erythropolis UPV-1. Enzyme and Microbial Technology, 2002, 31, 221-226.	3.2	25

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37	Reversible Immobilization of Glutaryl Acylase on Sepabeads Coated with Polyethyleneimine. Biotechnology Progress, 2008, 20, 533-536.	2.6	23
38	Increased Enantioselectivity by Engineering Bottleneck Mutants in an Esterase from Pseudomonas fluorescens. ChemBioChem, 2009, 10, 2920-2923.	2.6	22
39	A novel thermostable protein-tag: optimization of the Sulfolobus solfataricus DNA- alkyl-transferase by protein engineering. Extremophiles, 2016, 20, 1-13.	2.3	21
40	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
41	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
42	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
43	Immobilization of enzymes in microtiter plate scale. Biotechnology Journal, 2006, 1, 582-587.	3.5	15
44	Selectivity of lipases and esterases towards phenol esters. Journal of Molecular Catalysis B: Enzymatic, 2005, 36, 8-13.	1.8	14
45	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
46	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
47	Engineering the Substrate Specificity of a Thermophilic Penicillin Acylase from Thermus thermophilus. Applied and Environmental Microbiology, 2013, 79, 1555-1562.	3.1	12
48	Stabilization of Enzymes by Using Thermophiles. Methods in Molecular Biology, 2017, 1645, 297-312.	0.9	12
49	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
50	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
51	Stabilization of Multimeric Enzymes via Immobilization and Further Cross-Linking with Aldehyde-Dextran. Methods in Molecular Biology, 2020, 2100, 175-187.	0.9	10
52	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
53	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
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	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
56	Parallel Pathways for Nitrite Reduction during Anaerobic Growth in Thermus thermophilus. Journal of Bacteriology, 2014, 196, 1350-1358.	2.2	7
57	Stabilization of Multimeric Enzymes Via Immobilization and Further Cross-Linking With Aldehyde-Dextran. Methods in Biotechnology, 2006, , 129-141.	0.2	5
58	Insights into the molecular determinants of thermal stability in halohydrin dehalogenase HheD2. FEBS Journal, 2021, 288, 4683-4701.	4.7	5
59	Ultrahigh-Throughput Screening of Metagenomic Libraries Using Droplet Microfluidics. Methods in Molecular Biology, 2022, 2397, 19-32.	0.9	3
60	A Coupled Ketoreductaseâ€Ðiaphorase Assay for the Detection of Polyethylene Terephthalateâ€Hydrolyzing Activity. ChemSusChem, 2022, 15, .	6.8	3
61	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
62	Are inÂvivo selections on the path to extinction?. Microbial Biotechnology, 2017, 10, 46-49.	4.2	1
63	Immobilization and Stabilization of Proteins by Multipoint Covalent Attachment on Novel Amino-Epoxy-SepabeadsÂ®. Methods in Biotechnology, 2006, , 153-162.	0.2	1
64	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
65	A Brief Guide to the High-Throughput Expression of Directed Evolution Libraries. Methods in Molecular Biology, 2018, 1685, 131-143.	0.9	0