Ayelet Fishman

List of Publications by Year
in descending order

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74	3,078	147566	168136
papers	citations	31 h-index	53 g-index

77	77	77	3303
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	First Structures of an Active Bacterial Tyrosinase Reveal Copper Plasticity. Journal of Molecular Biology, 2011, 405, 227-237.	2.0	230
2	Determination of tyrosinase substrate-binding modes reveals mechanistic differences between type-3 copper proteins. Nature Communications, 2014, 5, 4505.	5.8	164
3	Structureâ€"function correlations in tyrosinases. Protein Science, 2015, 24, 1360-1369.	3.1	158
4	Oxidation of Benzene to Phenol, Catechol, and 1,2,3-Trihydroxybenzene by Toluene 4-Monooxygenase of Pseudomonas mendocina KR1 and Toluene 3-Monooxygenase of Ralstonia pickettii PKO1. Applied and Environmental Microbiology, 2004, 70, 3814-3820.	1.4	122
5	Protein Engineering by Random Mutagenesis and Structure-Guided Consensus of Geobacillus stearothermophilus Lipase T6 for Enhanced Stability in Methanol. Applied and Environmental Microbiology, 2014, 80, 1515-1527.	1.4	111
6	The unravelling of the complex pattern of tyrosinase inhibition. Scientific Reports, 2016, 6, 34993.	1.6	109
7	Production of 2-phenylethanol from L-phenylalanine by a stress tolerantSaccharomyces cerevisiaestrain. Journal of Applied Microbiology, 2009, 106, 534-542.	1.4	99
8	Bioproduction of 2-Phenylethanol in a Biphasic Ionic Liquid Aqueous System. Journal of Agricultural and Food Chemistry, 2010, 58, 2260-2265.	2.4	93
9	Crosslinking of food proteins mediated by oxidative enzymes â€" A review. Trends in Food Science and Technology, 2018, 72, 134-143.	7.8	90
10	Isolation, Cloning and Characterization of a Tyrosinase with Improved Activity in Organic Solvents from <i>Bacillus megaterium</i>. Journal of Molecular Microbiology and Biotechnology, 2009, 17, 188-200.	1.0	78
11	Altering Toluene 4-Monooxygenase by Active-Site Engineering for the Synthesis of 3-Methoxycatechol, Methoxyhydroquinone, and Methylhydroquinone. Journal of Bacteriology, 2004, 186, 4705-4713.	1.0	76
12	Saturation Mutagenesis of Toluene ortho-Monooxygenase of Burkholderia cepacia G4 for Enhanced 1-Naphthol Synthesis and Chloroform Degradation. Applied and Environmental Microbiology, 2004, 70, 3246-3252.	1.4	75
13	Controlling the Regiospecific Oxidation of Aromatics via Active Site Engineering of Toluene para-Monooxygenase of Ralstonia pickettii PKO1. Journal of Biological Chemistry, 2005, 280, 506-514.	1.6	68
14	Gel-like emulsions stabilized by tyrosinase-crosslinked potato and zein proteins. Food Hydrocolloids, 2018, 82, 53-63.	5.6	65
15	Influencing the monophenolase/diphenolase activity ratio in tyrosinase. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2013, 1834, 629-633.	1.1	64
16	Toluene 3-Monooxygenase of Ralstonia pickettii PKO1 Is a para-Hydroxylating Enzyme. Journal of Bacteriology, 2004, 186, 3117-3123.	1.0	63
17	Transglutaminase modifies the physical stability and digestibility of chickpea protein-stabilized oil-in-water emulsions. Food Chemistry, 2020, 315, 126301.	4.2	61
18	Stabilization of horseradish peroxidase in aqueous-organic media by immobilization onto cellulose using a cellulose-binding-domain. Journal of Molecular Catalysis B: Enzymatic, 2002, 18, 121-131.	1.8	58

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19	Exploiting the 1-(4-fluorobenzyl)piperazine fragment for the development of novel tyrosinase inhibitors as anti-melanogenic agents: Design, synthesis, structural insights and biological profile. European Journal of Medicinal Chemistry, 2019, 178, 380-389.	2.6	57
20	Directed evolution of tyrosinase for enhanced monophenolase/diphenolase activity ratio. Enzyme and Microbial Technology, 2010, 47, 372-376.	1.6	55
21	Bio-imprinting of lipases with fatty acids. Journal of Molecular Catalysis B: Enzymatic, 2003, 22, 193-202.	1.8	54
22	Modulating enzyme activity using ionic liquids or surfactants. Applied Microbiology and Biotechnology, 2014, 98, 545-554.	1.7	49
23	Protein engineering of toluene 4-monooxygenase ofPseudomonas mendocina KR1 for synthesizing 4-nitrocatechol from nitrobenzene. Biotechnology and Bioengineering, 2004, 87, 779-790.	1.7	48
24	The antioxidant hydroxytyrosol: biotechnological production challenges and opportunities. Applied Microbiology and Biotechnology, 2015, 99, 1119-1130.	1.7	46
25	Enzymatic and chemical modification of zein for food application. Trends in Food Science and Technology, 2021, 112, 507-517.	7.8	42
26	Protein Engineering of Toluene Monooxygenases for Synthesis of Chiral Sulfoxides. Applied and Environmental Microbiology, 2008, 74, 1555-1566.	1.4	41
27	Chemical exploration of 4-(4-fluorobenzyl)piperidine fragment for the development of new tyrosinase inhibitors. European Journal of Medicinal Chemistry, 2017, 125, 992-1001.	2.6	38
28	Cloning Rosa hybrid phenylacetaldehyde synthase for the production of 2-phenylethanol in a whole cell Escherichia coli system. Applied Microbiology and Biotechnology, 2014, 98, 3603-3611.	1.7	35
29	A two-step enzymatic resolution process for large-scale production of (S)- and (R)-ethyl-3-hydroxybutyrate. Biotechnology and Bioengineering, 2001, 74, 256-263.	1.7	34
30	The mechanism of copper uptake by tyrosinase from Bacillus megaterium. Journal of Biological Inorganic Chemistry, 2013, 18, 895-903.	1.1	34
31	Changes in tyrosinase specificity by ionic liquids and sodium dodecyl sulfate. Applied Microbiology and Biotechnology, 2013, 97, 1953-1961.	1.7	34
32	Chemo-enzymatic synthesis of (S)-Î±-cyano-3-phenoxybenzyl alcohol. Tetrahedron: Asymmetry, 1998, 9, 107-118.	1.8	32
33	Antimicrobial packaging based on linear low-density polyethylene compounded with potassium sorbate. LWT - Food Science and Technology, 2015, 62, 278-286.	2.5	32
34	Tyrosinase-crosslinked pea protein emulsions: Impact of zein incorporation. Food Research International, 2019, 116, 370-378.	2.9	30
35	Protein engineering of toluene monooxygenases for synthesis of hydroxytyrosol. Food Chemistry, 2009, 116, 114-121.	4.2	29
36	Improving Biocatalyst Performance by Integrating Statistical Methods into Protein Engineering. Applied and Environmental Microbiology, 2010, 76, 6397-6403.	1.4	28

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37	Structural insights into methanol-stable variants of lipase T6 from Geobacillus stearothermophilus. Applied Microbiology and Biotechnology, 2015, 99, 9449-9461.	1.7	27
38	Creating an Efficient Methanolâ€Stable Biocatalyst by Protein and Immobilization Engineering Steps towards Efficient Biosynthesis of Biodiesel. ChemSusChem, 2016, 9, 3161-3170.	3.6	27
39	Ureolytic bacteria from electronic waste area, their biological robustness against potentially toxic elements and underlying mechanisms. Journal of Environmental Management, 2021, 289, 112517.	3.8	27
40	Crystallization and preliminary X-ray crystallographic analysis of a bacterial tyrosinase fromBacillus megaterium. Acta Crystallographica Section F: Structural Biology Communications, 2010, 66, 1101-1103.	0.7	26
41	Characterization of oil-in-water emulsions stabilized by tyrosinase-crosslinked soy glycinin. Food Hydrocolloids, 2015, 43, 493-500.	5.6	26
42	The influence of key residues in the tunnel entrance and the active site on activity and selectivity of toluene-4-monooxygenase. Journal of Molecular Catalysis B: Enzymatic, 2010, 66, 72-80.	1.8	25
43	Variation in quantity and composition of cuticular hydrocarbons in the scorpion Buthus occitanus (Buthidae) in response to acute exposure to desiccation stress. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2015, 182, 58-63.	0.8	25
44	Oil-in-water emulsions stabilized by tyrosinase-crosslinked potato protein. Food Research International, 2017, 100, 407-415.	2.9	25
45	Targeting Tyrosinase: Development and Structural Insights of Novel Inhibitors Bearing Arylpiperidine and Arylpiperazine Fragments. Journal of Medicinal Chemistry, 2018, 61, 3908-3917.	2.9	25
46	Modulating the gel properties of soy glycinin by crosslinking with tyrosinase. Food Research International, 2016, 87, 42-49.	2.9	24
47	Effect of Maternal Diet and Milk Lipid Composition on the Infant Gut and Maternal Milk Microbiomes. Nutrients, 2020, 12, 2539.	1.7	23
48	Constitutive expression of active microbial transglutaminase in Escherichia coli and comparative characterization to a known variant. BMC Biotechnology, 2017, 17, 23.	1.7	22
49	Directed evolution of nitrobenzene dioxygenase for the synthesis of the antioxidant hydroxytyrosol. Applied Microbiology and Biotechnology, 2014, 98, 4975-4985.	1.7	19
50	A crystal structure of 2-hydroxybiphenyl 3-monooxygenase with bound substrate provides insights into the enzymatic mechanism. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2015, 1854, 1906-1913.	1.1	19
51	Filling the Void: Introducing Aromatic Interactions into Solvent Tunnels To Enhance Lipase Stability in Methanol. Applied and Environmental Microbiology, 2018, 84, .	1.4	19
52	Hydrophobic microspheres forin situremoval of 2-phenylethanol from yeast fermentation. Journal of Microencapsulation, 2011, 28, 628-638.	1.2	16
53	Improving process conditions of hydroxytyrosol synthesis by toluene-4-monooxygenase. Journal of Molecular Catalysis B: Enzymatic, 2012, 84, 121-127.	1.8	16
54	Mechanistic insights into tyrosinase-mediated crosslinking of soy glycinin derived peptides. Food Chemistry, 2017, 232, 587-594.	4.2	16

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55	Versatile Fungal Polyphenol Oxidase with Chlorophenol Bioremediation Potential: Characterization and Protein Engineering. Applied and Environmental Microbiology, 2018, 84, .	1.4	15
56	Impact of fatty acids unsaturation on stability and intestinal lipolysis of bioactive lipid droplets. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2019, 561, 70-78.	2.3	15
57	A coupled enzymatic reaction of tyrosinase and glucose dehydrogenase for the production of hydroxytyrosol. Applied Microbiology and Biotechnology, 2020, 104, 4945-4955.	1.7	15
58	Protein engineering of nirobenzene dioxygenase for enantioselective synthesis of chiral sulfoxides. Protein Engineering, Design and Selection, 2013, 26, 335-345.	1.0	14
59	Bridges to Stability: Engineering Disulfide Bonds Towards Enhanced Lipase Biodiesel Synthesis. ChemCatChem, 2020, 12, 181-192.	1.8	13
60	Fatty-acid-modified enzymes as enantioselective catalysts in microaqueous organic media. Biotechnology Letters, 1998, 20, 535-538.	1.1	10
61	ENGINEERING NON-HEME MONO- AND DIOXYGENASES FOR BIOCATALYSIS. Computational and Structural Biotechnology Journal, 2012, 2, e201209011.	1.9	10
62	The COP9 signalosome mediates the Spt23 regulated fatty acid desaturation and ergosterol biosynthesis. FASEB Journal, 2020, 34, 4870-4889.	0.2	10
63	Practical Chemo-Enzymatic Process for the Preparation of (1R,cis)-2-(2,2-Dihaloethenyl)-3,3-dimethylcyclopropane Carboxylic Acids. Organic Process Research and Development, 2000, 4, 77-87.	1.3	8
64	Physiological relevance of successive hydroxylations of toluene by toluenepara-monooxygenase ofRalstonia picketiiPKO1. Biocatalysis and Biotransformation, 2004, 22, 283-289.	1.1	8
65	Rapid Methods for High-Throughput Detection of Sulfoxides. Applied and Environmental Microbiology, 2009, 75, 4711-4719.	1.4	8
66	Atomic Picture of Ligand Migration in Toluene 4-Monooxygenase. Journal of Physical Chemistry B, 2015, 119, 671-678.	1.2	8
67	Altering 2â€Hydroxybiphenyl 3â€Monooxygenase Regioselectivity by Protein Engineering for the Production of a New Antioxidant. ChemBioChem, 2018, 19, 583-590.	1.3	8
68	Improvement of natural isolates of Saccharomyces cerevisiae strains for synthesis of a chiral building block using classic genetics. Applied Microbiology and Biotechnology, 2008, 78, 659-667.	1.7	7
69	Immobilization of aldehyde dehydrogenase on montmorillonite using polyethyleneimine as a stabilization and bridging agent. Applied Clay Science, 2021, 212, 106216.	2.6	5
70	Partial characterization of bean and maize root peroxidases and their ability to crosslink potato protein. Archives of Biological Sciences, 2019, 71, 293-303.	0.2	4
71	The maternal foam plug constitutes a reservoir for the desert locust's bacterial symbionts. Environmental Microbiology, 2021, 23, 2461-2472.	1.8	3
72	Yeast-derived potato patatins: Biochemical and biophysical characterization. Food Chemistry, 2022, 370, 130984.	4.2	3

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73	Kinetic resolution of a diltiazem intermediate by lipase-catalyzed enantioselective alcoholysis. Journal of Molecular Catalysis B: Enzymatic, 2000, 9, 251-257.	1.8	0
74	The Structure of Bilirubin Oxidase from Bacillus pumilus Reveals a Unique Disulfide Bond for Site-Specific Direct Electron Transfer. Biosensors, 2022, 12, 258.	2.3	0