

Robert S Phillips

List of Publications by Citations

Source: <https://exaly.com/author-pdf/1777974/robert-s-phillips-publications-by-citations.pdf>

Version: 2024-04-27

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

207
papers

5,523
citations

39
h-index

62
g-index

222
ext. papers

6,100
ext. citations

5.1
avg, IF

5.61
L-index

#	Paper	IF	Citations
207	Symbiotic bacterial metabolites regulate gastrointestinal barrier function via the xenobiotic sensor PXR and Toll-like receptor 4. <i>Immunity</i> , 2014 , 41, 296-310	32.3	470
206	Temperature modulation of the stereochemistry of enzymatic catalysis: Prospects for exploitation. <i>Trends in Biotechnology</i> , 1996 , 14, 13-16	15.1	195
205	Indole can act as an extracellular signal to regulate biofilm formation of Escherichia coli and other indole-producing bacteria. <i>Canadian Journal of Microbiology</i> , 2003 , 49, 443-9	3.2	185
204	Three-dimensional structure of tyrosine phenol-lyase. <i>Biochemistry</i> , 1993 , 32, 4195-206	3.2	130
203	Recent advances in alcohol dehydrogenase-catalyzed asymmetric production of hydrophobic alcohols. <i>Catalysis Science and Technology</i> , 2011 , 1, 1311	5.5	96
202	A redox-active FKBP-type immunophilin functions in accumulation of the photosystem II supercomplex in Arabidopsis thaliana. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006 , 103, 12631-6	11.5	94
201	Kinetics and mechanism of superoxide reduction by two-iron superoxide reductase from <i>Desulfovibrio vulgaris</i> . <i>Biochemistry</i> , 2002 , 41, 4348-57	3.2	87
200	Asymmetric reduction and oxidation of aromatic ketones and alcohols using W110A secondary alcohol dehydrogenase from <i>Thermoanaerobacter ethanolicus</i> . <i>Journal of Organic Chemistry</i> , 2007 , 72, 30-4	4.2	86
199	Temperature effects on stereochemistry of enzymatic reactions. <i>Enzyme and Microbial Technology</i> , 1992 , 14, 417-419	3.8	86
198	Effects of substrate structure and temperature on the stereospecificity of secondary alcohol dehydrogenase from <i>Thermoanaerobacter ethanolicus</i> . <i>Journal of the American Chemical Society</i> , 1990 , 112, 3629-3632	16.4	79
197	Controlling Substrate Specificity and Stereospecificity of Alcohol Dehydrogenases. <i>ACS Catalysis</i> , 2015 , 5, 2100-2114	13.1	76
196	The crystal structure of <i>Citrobacter freundii</i> tyrosine phenol-lyase complexed with 3-(4-hydroxyphenyl)propionic acid, together with site-directed mutagenesis and kinetic analysis, demonstrates that arginine 381 is required for substrate specificity. <i>Biochemistry</i> , 1997 , 36, 6502-10	3.2	73
195	Interactions of tryptophan synthase, tryptophanase, and pyridoxal phosphate with oxindolyl-L-alanine and 2,3-dihydro-L-tryptophan: support for an indolenine intermediate in tryptophan metabolism. <i>Biochemistry</i> , 1984 , 23, 6228-34	3.2	72
194	Temperature-dependent enantiospecificity of secondary alcohol dehydrogenase from <i>Thermoanaerobacter ethanolicus</i> . <i>Journal of the American Chemical Society</i> , 1989 , 111, 1935-1936	16.4	70
193	S-Aryl-L-cysteine S,S-dioxides: design, synthesis, and evaluation of a new class of inhibitors of kynureninase. <i>Journal of the American Chemical Society</i> , 1993 , 115, 1264-1270	16.4	66
192	The entropic force generated by intrinsically disordered segments tunes protein function. <i>Nature</i> , 2018 , 563, 584-588	50.4	66
191	A Single Point Mutation Reverses the Enantioselectivity of <i>Thermoanaerobacter ethanolicus</i> Secondary Alcohol Dehydrogenase. <i>ChemCatChem</i> , 2009 , 1, 89-93	5.2	65

190	Xerogel-encapsulated W110A secondary alcohol dehydrogenase from <i>Thermoanaerobacter ethanolicus</i> performs asymmetric reduction of hydrophobic ketones in organic solvents. <i>Angewandte Chemie - International Edition</i> , 2007 , 46, 3091-4	16.4	58
189	Asymmetric reduction of ethynyl ketones and ethynylketoesters by secondary alcohol dehydrogenase from <i>Thermoanaerobacter ethanolicus</i> . <i>Journal of the Chemical Society, Perkin Transactions 1</i> , 2000 , 2821-2825		57
188	Site-directed mutagenesis of tyrosine-71 to phenylalanine in <i>Citrobacter freundii</i> tyrosine phenol-lyase: evidence for dual roles of tyrosine-71 as a general acid catalyst in the reaction mechanism and in cofactor binding. <i>Biochemistry</i> , 1995 , 34, 12276-83	3.2	57
187	Spectroscopic investigation of ligand interaction with hepatic phenylalanine hydroxylase: evidence for a conformational change associated with activation. <i>Biochemistry</i> , 1984 , 23, 3836-42	3.2	57
186	Mutation of cysteine-295 to alanine in secondary alcohol dehydrogenase from <i>Thermoanaerobacter ethanolicus</i> affects the enantioselectivity and substrate specificity of ketone reductions. <i>Bioorganic and Medicinal Chemistry</i> , 2001 , 9, 1659-66	3.4	56
185	A resonance Raman study of substrate and inhibitor binding to protocatechuate-3,4-dioxygenase. <i>Biochemical and Biophysical Research Communications</i> , 1978 , 85, 844-50	3.4	54
184	A <i>Thermoanaerobacter ethanolicus</i> secondary alcohol dehydrogenase mutant derivative highly active and stereoselective on phenylacetone and benzylacetone. <i>Protein Engineering, Design and Selection</i> , 2007 , 20, 47-55	1.9	53
183	Reactions of O-acyl-L-serines with tryptophanase, tyrosine phenol-lyase, and tryptophan synthase. <i>Archives of Biochemistry and Biophysics</i> , 1987 , 256, 302-10	4.1	52
182	Mechanistic deductions from multiple kinetic and solvent deuterium isotope effects and pH studies of pyridoxal phosphate dependent carbon-carbon lyases: <i>Escherichia coli</i> tryptophan indole-lyase. <i>Biochemistry</i> , 1988 , 27, 7339-44	3.2	51
181	Kinetics of the superoxide reductase catalytic cycle. <i>Journal of Biological Chemistry</i> , 2003 , 278, 39662-8	5.4	49
180	Isolation of an <i>Escherichia coli</i> strain mutant unable to form biofilm on polystyrene and to adhere to human pneumocyte cells: involvement of tryptophanase. <i>Canadian Journal of Microbiology</i> , 2002 , 48, 132-7	3.2	49
179	Chemistry and diversity of pyridoxal-5-phosphate dependent enzymes. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2015 , 1854, 1167-74	4	48
178	Mechanistic deductions from kinetic isotope effects and pH studies of pyridoxal phosphate dependent carbon-carbon lyases: <i>Erwinia herbicola</i> and <i>Citrobacter freundii</i> tyrosine phenol-lyase. <i>Biochemistry</i> , 1988 , 27, 7333-8	3.2	48
177	Proton Transfer and Carbon-Carbon Bond Cleavage in the Elimination of Indole Catalyzed by <i>Escherichia coli</i> Tryptophan Indole-Lyase. <i>Journal of the American Chemical Society</i> , 2000 , 122, 1008-10	16.4	45
176	Reaction of indole and analogues with amino acid complexes of <i>Escherichia coli</i> tryptophan indole-lyase: detection of a new reaction intermediate by rapid-scanning stopped-flow spectrophotometry. <i>Biochemistry</i> , 1991 , 30, 5927-34	3.2	45
175	Activity and selectivity of W110A secondary alcohol dehydrogenase from <i>Thermoanaerobacter ethanolicus</i> in organic solvents and ionic liquids: mono- and biphasic media. <i>Organic and Biomolecular Chemistry</i> , 2008 , 6, 887-92	3.9	44
174	Investigation of the role of 3-hydroxyanthranilic acid in the degradation of lignin by white-rot fungus <i>Pycnoporus cinnabarinus</i> . <i>Enzyme and Microbial Technology</i> , 2001 , 28, 301-307	3.8	42
173	Mutation of Serine-39 to Threonine in Thermostable Secondary Alcohol Dehydrogenase from <i>Thermoanaerobacter ethanolicus</i> Changes Enantiospecificity. <i>Journal of the American Chemical Society</i> , 1998 , 120, 5137-5141	16.4	40

172	Synthesis of l-tyrosine from phenol and S-(o-nitrophenyl)-l-cysteine catalysed by tyrosine phenol-lyase. <i>Enzyme and Microbial Technology</i> , 1989 , 11, 80-83	3.8	40
171	Mechanism of tryptophan indole-lyase: insights from pre-steady-state kinetics and substrate and solvent isotope effects. <i>Journal of the American Chemical Society</i> , 1989 , 111, 727-730	16.4	40
170	Stereochemistry and mechanism of aldol reactions catalyzed by kynureninase. <i>Journal of the American Chemical Society</i> , 1991 , 113, 7385-7388	16.4	40
169	Site-Directed Mutagenesis of His343Ala in <i>Citrobacter freundii</i> Tyrosine Phenol-Lyase. Effects on the Kinetic Mechanism and Rate-Determining Step. <i>FEBS Journal</i> , 1995 , 229, 540-549		39
168	Kynurenine 3-monooxygenase from <i>Pseudomonas fluorescens</i> : substrate-like inhibitors both stimulate flavin reduction and stabilize the flavin-peroxo intermediate yet result in the production of hydrogen peroxide. <i>Biochemistry</i> , 2008 , 47, 12420-33	3.2	38
167	The role of the catalytic base in the protein tyrosine kinase Csk. <i>Journal of Biological Chemistry</i> , 1995 , 270, 22105-8	5.4	38
166	Binding of phenol and analogues to alanine complexes of tyrosine phenol-lyase from <i>Citrobacter freundii</i> : implications for the mechanisms of alpha,beta-elimination and alanine racemization. <i>Biochemistry</i> , 1993 , 32, 11591-9	3.2	38
165	Crystallographic snapshots of tyrosine phenol-lyase show that substrate strain plays a role in C-C bond cleavage. <i>Journal of the American Chemical Society</i> , 2011 , 133, 16468-76	16.4	37
164	Structure and mechanism of tryptophan indole-lyase and tyrosine phenol-lyase. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2003 , 1647, 167-72	4	37
163	Dopamine-B-hydroxylase: suicide inhibition by the novel olefinic substrate, 1-phenyl-1-aminomethylethene. <i>Biochemical and Biophysical Research Communications</i> , 1983 , 110, 161-8 ³⁻⁴		37
162	Crystal structure of <i>Homo sapiens</i> kynureninase. <i>Biochemistry</i> , 2007 , 46, 2735-44	3.2	36
161	Synthetic applications of tryptophan synthase. <i>Tetrahedron: Asymmetry</i> , 2004 , 15, 2787-2792		36
160	Detection and identification of transient intermediates in the reactions of tryptophan synthase with oxindolyl-L-alanine and 2,3-dihydro-L-tryptophan. Evidence for a tetrahedral (gem-diamine) intermediate. <i>Biochemistry</i> , 1988 , 27, 8661-9	3.2	36
159	The stereospecificity of secondary alcohol dehydrogenase from <i>Thermoanaerobacter ethanolicus</i> is partially determined by active site water. <i>Journal of the American Chemical Society</i> , 2001 , 123, 345-6	16.4	35
158	Oxygenation of fluorinated tyrosines by mushroom tyrosinase releases fluoride ion. <i>Archives of Biochemistry and Biophysics</i> , 1990 , 276, 65-9	4.1	35
157	Histidine ligand protonation and redox potential in the rieske dioxygenases: role of a conserved aspartate in anthranilate 1,2-dioxygenase. <i>Biochemistry</i> , 2003 , 42, 13625-36	3.2	34
156	Effects of pH on enantiospecificity of alcohol dehydrogenases from <i>Thermoanaerobacter ethanolicus</i> and horse liver. <i>Enzyme and Microbial Technology</i> , 1996 , 19, 487-492	3.8	34
155	Isomerization of (3S)-2,3-dihydro-5-fluoro-L-tryptophan and of 5-fluoro-L-tryptophan catalyzed by tryptophan synthase: studies using fluorine-19 nuclear magnetic resonance and difference spectroscopy. <i>Biochemistry</i> , 1986 , 25, 4240-9	3.2	34

154	Lipase-catalyzed stereoselective esterification of dl-menthol in organic solvents using acid anhydrides as acylating agents. <i>Enzyme and Microbial Technology</i> , 1996 , 18, 536-539	3.8	33
153	Crystal structure of the Homo sapiens kynureninase-3-hydroxyhippuric acid inhibitor complex: insights into the molecular basis of kynureninase substrate specificity. <i>Journal of Medicinal Chemistry</i> , 2009 , 52, 389-96	8.3	32
152	Mass defect labeling of cysteine for improving peptide assignment in shotgun proteomic analyses. <i>Analytical Chemistry</i> , 2006 , 78, 3417-23	7.8	32
151	Biophysical and mutagenic analysis of Thermoanaerobacter ethanolicus secondary-alcohol dehydrogenase activity and specificity. <i>Biochemical Journal</i> , 1997 , 326 (Pt 3), 717-24	3.8	31
150	High-efficiency incorporation in vivo of tyrosine analogues with altered hydroxyl acidity in place of the catalytic tyrosine-14 of Delta 5-3-ketosteroid isomerase of Comamonas (Pseudomonas) testosteroni: effects of the modifications on isomerase kinetics. <i>Biochemistry</i> , 1998 , 37, 9738-42	3.2	30
149	Mutation of Thermoanaerobacter ethanolicus secondary alcohol dehydrogenase at Trp-110 affects stereoselectivity of aromatic ketone reduction. <i>Organic and Biomolecular Chemistry</i> , 2014 , 12, 5905-10	3.9	29
148	A leucine residue "Gates" solvent but not O ₂ access to the binding pocket of phascolopsis gouldii hemerythrin. <i>Journal of Biological Chemistry</i> , 2000 , 275, 17043-50	5.4	28
147	Cellobiose oxidase from Phanerochaete chrysosporium. Stopped-flow spectrophotometric analysis of pH-dependent reduction. <i>FEBS Letters</i> , 1992 , 306, 165-8	3.8	28
146	Racemization of enantiopure secondary alcohols by Thermoanaerobacter ethanolicus secondary alcohol dehydrogenase. <i>Organic and Biomolecular Chemistry</i> , 2013 , 11, 2911-5	3.9	27
145	Tyrosine phenol-lyase and tryptophan indole-lyase encapsulated in wet nanoporous silica gels: Selective stabilization of tertiary conformations. <i>Protein Science</i> , 2004 , 13, 913-24	6.3	27
144	Mechanism of binding of substrate analogues to tryptophan indole-lyase: studies using rapid-scanning and single-wavelength stopped-flow spectrophotometry. <i>Biochemistry</i> , 1990 , 29, 8608-14	3.2	27
143	Structure and mechanism of kynureninase. <i>Archives of Biochemistry and Biophysics</i> , 2014 , 544, 69-74	4.1	26
142	Three-dimensional structure of kynureninase from Pseudomonas fluorescens. <i>Biochemistry</i> , 2004 , 43, 1193-203	3.2	26
141	The O(2) binding pocket of myohemerythrin: role of a conserved leucine. <i>Biochemistry</i> , 2000 , 39, 8526-36	3.2	26
140	Ligand effects on the limited proteolysis of phenylalanine hydroxylase: evidence for multiple conformational states. <i>Biochemical and Biophysical Research Communications</i> , 1983 , 110, 919-25	3.4	26
139	¹⁹ F-NMR reveals metal and operator-induced allostery in MerR. <i>Journal of Molecular Biology</i> , 2007 , 371, 79-92	6.5	25
138	The Photophysical Properties of 6-Azaindole. <i>Journal of Physical Chemistry B</i> , 2003 , 107, 637-645	3.4	25
137	Threonine-124 and phenylalanine-448 in Citrobacter freundii tyrosine phenol-lyase are necessary for activity with l-tyrosine. <i>Biochemical Journal</i> , 2002 , 363, 745-752	3.8	25

136	Asymmetric reduction of aliphatic and cyclic ketones with secondary alcohol dehydrogenase from <i>Thermoanaerobacter ethanolicus</i> : effects of substrate. <i>Catalysis Today</i> , 1994 , 22, 607-620	5.3	25
135	Enzymatic sulphur oxygenation reactions. <i>Enzyme and Microbial Technology</i> , 1981 , 3, 9-18	3.8	25
134	Interaction of protocatechuate-3,4-dioxygenase with fluoro-substituted hydroxybenzoic acids and related compounds. <i>Biochemistry</i> , 1978 , 17, 1853-60	3.2	25
133	Crystals of tryptophan indole-lyase and tyrosine phenol-lyase form stable quinonoid complexes. <i>Journal of Biological Chemistry</i> , 2002 , 277, 21592-7	5.4	24
132	The catalytic mechanism of kynureninase from <i>Pseudomonas fluorescens</i> : evidence for transient quinonoid and ketimine intermediates from rapid-scanning stopped-flow spectrophotometry. <i>Biochemistry</i> , 1998 , 37, 8783-9	3.2	24
131	Excited state tautomerization of azaindole. <i>Organic and Biomolecular Chemistry</i> , 2005 , 3, 3701-6	3.9	23
130	Protein expression in <i>Escherichia coli</i> S17-1 biofilms: impact of indole. <i>Antonie Van Leeuwenhoek</i> , 2007 , 91, 71-85	2.1	23
129	Intramolecular general acid and general base catalyses in the hydrolysis of 2-halotryptophans and their analogs. <i>Journal of the American Chemical Society</i> , 1986 , 108, 2023-2030	16.4	23
128	Lipase PS-catalyzed transesterification of citronellyl butyrate and geranyl caproate: Effect of reaction parameters. <i>JAOCS, Journal of the American Oil Chemists Society</i> , 1997 , 74, 255-260	1.8	22
127	The catalytic mechanism of kynureninase from <i>Pseudomonas fluorescens</i> : insights from the effects of pH and isotopic substitution on steady-state and pre-steady-state kinetics. <i>Biochemistry</i> , 1998 , 37, 1376-82	3.2	22
126	Hydrostatic pressure affects the conformational equilibrium of <i>Salmonella typhimurium</i> tryptophan synthase. <i>Biochemistry</i> , 2005 , 44, 7921-8	3.2	22
125	Detection of open and closed conformations of tryptophan synthase by ¹⁵ N-heteronuclear single-quantum coherence nuclear magnetic resonance of bound 1- ¹⁵ N-L-tryptophan. <i>Journal of Biological Chemistry</i> , 2003 , 278, 44083-90	5.4	22
124	Threonine-124 and phenylalanine-448 in <i>Citrobacter freundii</i> tyrosine phenol-lyase are necessary for activity with L-tyrosine. <i>Biochemical Journal</i> , 2002 , 363, 745-52	3.8	22
123	Formation in vitro of hybrid dimers of H463F and Y74F mutant <i>Escherichia coli</i> tryptophan indole-lyase rescues activity with L-tryptophan. <i>Biochemistry</i> , 2002 , 41, 4012-9	3.2	22
122	Terpene ester synthesis by lipase-catalyzed transesterification. <i>Biotechnology Letters</i> , 1995 , 17, 67-70	3	22
121	Modulation of Enzyme Activity in the Kynurenine Pathway by Kynurenine Monooxygenase Inhibition. <i>Frontiers in Molecular Biosciences</i> , 2019 , 6, 3	5.6	21
120	<i>Salmonella</i> utilizes D-glucosamininate via a mannose family phosphotransferase system permease and associated enzymes. <i>Journal of Bacteriology</i> , 2013 , 195, 4057-66	3.5	21
119	Cloning, sequence, and expression of kynureninase from <i>Pseudomonas fluorescens</i> . <i>Archives of Biochemistry and Biophysics</i> , 1997 , 344, 301-8	4.1	21

118	The second enzyme in pyrrolnitrin biosynthetic pathway is related to the heme-dependent dioxygenase superfamily. <i>Biochemistry</i> , 2007 , 46, 12393-404	3.2	21
117	Benzoate decreases the binding of cis,cis-muconate to the BenM regulator despite the synergistic effect of both compounds on transcriptional activation. <i>Journal of Bacteriology</i> , 2004 , 186, 1200-4	3.5	21
116	Influence of steric bulk and electrostatics on the hydroxylation regioselectivity of tryptophan hydroxylase: characterization of methyltryptophans and azatryptophans as substrates. <i>Biochemistry</i> , 1999 , 38, 16283-9	3.2	21
115	Enzymatic synthesis of chloro-L-tryptophans. <i>Bioorganic and Medicinal Chemistry Letters</i> , 1992 , 2, 1563-1564	3.4	21
114	Structure, mechanism, and substrate specificity of kynureninase. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2011 , 1814, 1481-8	4	20
113	The role of glutamic acid-69 in the activation of <i>Citrobacter freundii</i> tyrosine phenol-lyase by monovalent cations. <i>Biochemistry</i> , 2000 , 39, 8546-55	3.2	20
112	Effects of alpha-deuteration and of aza and thia analogs of L-tryptophan on formation of intermediates in the reaction of <i>Escherichia coli</i> tryptophan indole-lyase. <i>Biochemistry</i> , 1996 , 35, 16165-73	3.2	20
111	Cyclonerodiol from a novel source, <i>Trichoderma koningii</i> : Plant growth regulatory activity.. <i>Agricultural and Biological Chemistry</i> , 1991 , 55, 243-244		20
110	<i>Thermoanaerobacter ethanolicus</i> secondary alcohol dehydrogenase mutants with improved racemization activity. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2015 , 115, 155-159		19
109	Enzymatic syntheses of 6-(4H-selenolo[3,2-b]pyrrolyl)-L-alanine, 4-(6H-selenolo[2,3-b]pyrrolyl)-L-alanine, and 6-(4H-furo[3,2-b]pyrrolyl)-L-alanine. <i>Bioorganic and Medicinal Chemistry Letters</i> , 1999 , 9, 637-40	2.9	19
108	<i>Pseudomonas</i> sp. lipase-catalyzed synthesis of geranyl esters by transesterification. <i>JAOCS, Journal of the American Oil Chemists Society</i> , 1995 , 72, 1407-1408	1.8	19
107	Enzymatic synthesis of aza-l-tryptophans: The preparation of 5- and 6-Aza-l-tryptophan. <i>Bioorganic and Medicinal Chemistry Letters</i> , 1992 , 2, 1053-1056	2.9	19
106	Bioactivation of <i>Catha edulis</i> alkaloids: enzymatic ketonization of norpseudoephedrine. <i>Biochemical and Biophysical Research Communications</i> , 1982 , 104, 38-44	3.4	19
105	Hysteresis and negative cooperativity in human UDP-glucose dehydrogenase. <i>Biochemistry</i> , 2013 , 52, 1456-65	3.2	18
104	Role of aspartate-133 and histidine-458 in the mechanism of tryptophan indole-lyase from <i>Proteus vulgaris</i> . <i>Biochemistry</i> , 2003 , 42, 11161-9	3.2	18
103	The crystal structure of the <i>Pseudomonas dacunhae</i> aspartate-beta-decarboxylase dodecamer reveals an unknown oligomeric assembly for a pyridoxal-5Sphosphate-dependent enzyme. <i>Journal of Molecular Biology</i> , 2009 , 388, 98-108	6.5	17
102	Pressure and temperature jump relaxation kinetics of the conformational change in <i>Salmonella typhimurium</i> tryptophan synthase L-serine complex: large activation compressibility and heat capacity changes demonstrate the contribution of solvation. <i>Journal of the American Chemical Society</i> , 2008 , 130, 13580-8	16.4	17
101	A Mannose Family Phosphotransferase System Permease and Associated Enzymes Are Required for Utilization of Fructoselysine and Glucoselysine in <i>Salmonella enterica</i> Serovar Typhimurium. <i>Journal of Bacteriology</i> , 2015 , 197, 2831-9	3.5	16

100	Aminoacrylate intermediates in the reaction of <i>Citrobacter freundii</i> tyrosine phenol-lyase. <i>Biochemistry</i> , 2006 , 45, 9575-83	3.2	16
99	How does active site water affect enzymatic stereorecognition?. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2002 , 19-20, 103-107		16
98	Differential effects of bromination on substrates and inhibitors of kynureninase from <i>Pseudomonas fluorescens</i> . <i>Organic and Biomolecular Chemistry</i> , 2003 , 1, 288-95	3.9	16
97	Enzymatic synthesis of Thia-L-tryptophans. <i>Bioorganic and Medicinal Chemistry Letters</i> , 1995 , 5, 1133-1134	3.9	16
96	Asymmetric reduction of ketoesters with alcohol dehydrogenase from thermoanaerobacter ethanolicus. <i>Bioorganic and Medicinal Chemistry Letters</i> , 1992 , 2, 619-622	2.9	16
95	Cold inactivation and dissociation into dimers of <i>Escherichia coli</i> tryptophanase and its W330F mutant form. <i>BBA - Proteins and Proteomics</i> , 1998 , 1384, 365-72		15
94	Temperature and DMSO increase the enantioselectivity of hydrolysis of methyl alkyl dimethylmalonates catalyzed by pig liver esterase. <i>Bioorganic and Medicinal Chemistry Letters</i> , 1991 , 1, 373-376	2.9	15
93	Ground-State Destabilization by Phe-448 and Phe-449 Contributes to Tyrosine Phenol-Lyase Catalysis. <i>ACS Catalysis</i> , 2016 , 6, 6770-6779	13.1	14
92	Substituent effects on the reaction of beta-benzoylalanines with <i>Pseudomonas fluorescens</i> kynureninase. <i>Biochemistry</i> , 2010 , 49, 7913-9	3.2	14
91	Conformational changes and loose packing promote <i>E. coli</i> Tryptophanase cold lability. <i>BMC Structural Biology</i> , 2009 , 9, 65	2.7	14
90	The mechanism of <i>Escherichia coli</i> tryptophan indole-lyase: substituent effects on steady-state and pre-steady-state kinetic parameters for aryl-substituted tryptophan derivatives. <i>Bioorganic and Medicinal Chemistry</i> , 1995 , 3, 195-205	3.4	14
89	Effect of coenzyme analogues on enantioselectivity of alcohol dehydrogenase. <i>Journal of the Chemical Society Perkin Transactions 1</i> , 1992 , 1083		14
88	Structural and stereochemical studies of esterification of aromatic amino acids by <i>Chymotrypsin</i> in alcohol solvents. <i>Enzyme and Microbial Technology</i> , 1990 , 12, 731-735	3.8	14
87	I86A/C295A mutant secondary alcohol dehydrogenase from <i>Thermoanaerobacter ethanolicus</i> has broadened substrate specificity for aryl ketones. <i>Archives of Biochemistry and Biophysics</i> , 2016 , 606, 151-6	4.1	14
86	Quantitative effects of allosteric ligands and mutations on conformational equilibria in <i>Salmonella typhimurium</i> tryptophan synthase. <i>Archives of Biochemistry and Biophysics</i> , 2008 , 470, 8-19	4.1	13
85	Synthesis of 5-cyano-L-tryptophan. <i>Tetrahedron Letters</i> , 1992 , 33, 29-32	2	13
84	Effects of tyrosine ring fluorination on rates and equilibria of formation of intermediates in the reactions of carbon-carbon lyases. <i>FEBS Journal</i> , 1997 , 244, 658-63		12
83	Reaction of <i>Pseudomonas fluorescens</i> kynureninase with beta-benzoyl-L-alanine: detection of a new reaction intermediate and a change in rate-determining step. <i>Biochemistry</i> , 2004 , 43, 3230-7	3.2	12

82	Improved Syntheses of [3,2-b]- and [2,3-b]-fused Selenolo- and Thienopyrroles, and of Furo[3,2-b]pyrrole. <i>Heterocyclic Communications</i> , 1999 , 5,	1.7	12
81	The environments of Trp-248 and Trp-330 in tryptophan indole-lyase from <i>Escherichia coli</i> . <i>FEBS Letters</i> , 1990 , 268, 213-6	3.8	12
80	Asymmetric kinetics of protein structural changes. <i>Accounts of Chemical Research</i> , 2009 , 42, 778-87	24.3	11
79	An enzymatic synthesis of 2-azido-L-tyrosine. <i>Bioorganic and Medicinal Chemistry Letters</i> , 1992 , 2, 41-44	2.9	11
78	Protocatechuate 3,4-dioxygenase: implications of ionization effects on binding and dissociation of halohydroxybenzoates and on catalytic turnover. <i>Biochemistry</i> , 1979 , 18, 5933-9	3.2	11
77	Synthesis of 2-bromo-L-tryptophan and 2-chloro-L-tryptophan. <i>Tetrahedron Letters</i> , 1983 , 24, 5555-5558		11
76	Insights into the mechanism of <i>Pseudomonas dacunhae</i> aspartate beta-decarboxylase from rapid-scanning stopped-flow kinetics. <i>Biochemistry</i> , 2010 , 49, 5066-73	3.2	10
75	Methionine gamma-lyase: mechanistic deductions from the kinetic pH-effects. The role of the ionic state of a substrate in the enzymatic activity. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2009 , 1794, 1414-20	4	10
74	A rare variant at the KYNU gene is associated with kynureninase activity and essential hypertension in the Han Chinese population. <i>Circulation: Cardiovascular Genetics</i> , 2011 , 4, 687-94		10
73	Pressure-enhanced activity and stability of E1-ramnosidase and E2-glucosidase activities expressed by naringinase. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2010 , 65, 102-109		10
72	The role of acidic dissociation of substrate's phenol group in the mechanism of tyrosine phenol-lyase. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2003 , 1647, 260-5	4	10
71	Fluorine substituent effects for tryptophan in ¹³ C nuclear magnetic resonance. <i>Magnetic Resonance in Chemistry</i> , 1992 , 30, 1035-1040	2.1	10
70	Photoinactivation and photoaffinity labeling of tryptophan synthase alpha 2 beta 2 complex by the product analogue 6-azido-L-tryptophan. <i>Biochemistry</i> , 1985 , 24, 4694-703	3.2	10
69	Ionization state of pyridoxal 5-phosphate in D-serine dehydratase, dialkylglycine decarboxylase and tyrosine phenol-lyase and the influence of monovalent cations as inferred by ³¹ P NMR spectroscopy. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2006 , 1764, 230-8	4	9
68	The reaction of indole with the aminoacrylate intermediate of <i>Salmonella typhimurium</i> tryptophan synthase: observation of a primary kinetic isotope effect with 3-[(2)H]indole. <i>Archives of Biochemistry and Biophysics</i> , 2004 , 432, 233-43	4.1	9
67	Interactions of <i>Escherichia coli</i> tryptophanase with quasisubstrates and monovalent cations studied by the circular dichroism and fluorescence methods. <i>BBA - Proteins and Proteomics</i> , 1996 , 1294, 147-52		9
66	Synthesis and resolution of 7-fluorotryptophans. <i>Bioorganic and Medicinal Chemistry Letters</i> , 1991 , 1, 477-480	2.9	9
65	The phosphate of pyridoxal-5-phosphate is an acid/base catalyst in the mechanism of <i>Pseudomonas fluorescens</i> kynureninase. <i>FEBS Journal</i> , 2014 , 281, 1100-9	5.7	8

64	Preparation and photophysical properties of a caged kynurenine. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2012 , 22, 2734-7	2.9	8
63	Enzymatic synthesis of aza-l-tyrosines. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2001 , 11, 2099-100	2.9	8
62	Tailoring the substrate specificity of secondary alcohol dehydrogenase. <i>Canadian Journal of Chemistry</i> , 2002 , 80, 680-685	0.9	8
61	Substrate and inhibitor specificity of kynurenine monooxygenase from <i>Cytophaga hutchinsonii</i> . <i>Bioorganic and Medicinal Chemistry Letters</i> , 2017 , 27, 1705-1708	2.9	7
60	Effects of Hydrostatic Pressure on Stereospecificity of Secondary Alcohol Dehydrogenase from <i>Thermoanaerobacter Ethanolicus</i> Support the Role of Solvation in Enantiospecificity. <i>ACS Catalysis</i> , 2014 , 4, 692-694	13.1	7
59	The role of substrate strain in the mechanism of the carbon-carbon lyases. <i>Bioorganic Chemistry</i> , 2014 , 57, 198-205	5.1	7
58	Tryptophanase from <i>Proteus vulgaris</i> : the conformational rearrangement in the active site, induced by the mutation of Tyrosine 72 to phenylalanine, and its mechanistic consequences. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2006 , 1764, 750-7	4	7
57	The mechanism of alpha-proton isotope exchange in amino acids catalysed by tyrosine phenol-lyase. What is the role of quinonoid intermediates?. <i>FEBS Journal</i> , 2004 , 271, 4565-71		7
56	The design and synthesis of a selective inhibitor of fucosyltransferase VI. <i>Organic and Biomolecular Chemistry</i> , 2004 , 2, 1376-80	3.9	7
55	Role of lysine-256 in <i>Citrobacter freundii</i> tyrosine phenol-lyase in monovalent cation activation. <i>Biochemistry</i> , 2004 , 43, 14412-9	3.2	7
54	Mechanism of catalysis by tyrosine phenol lyase from <i>Erwinia herbicola</i> . Multiple kinetic isotope effects for the reactions with adequate substrates. <i>Journal of the Chemical Society Perkin Transactions II</i> , 1996 , 2001		7
53	Synthesis of 2-nitro-L-tryptophan. <i>Journal of Heterocyclic Chemistry</i> , 1988 , 25, 191-192	1.9	7
52	Crystal Structure of d-Ornithine/d-Lysine Decarboxylase, a Stereoinverting Decarboxylase: Implications for Substrate Specificity and Stereospecificity of Fold III Decarboxylases. <i>Biochemistry</i> , 2019 , 58, 1038-1042	3.2	6
51	Stereoselective acylation of DL-menthol in organic solvents by an immobilized lipase from <i>Pseudomonas cepacia</i> with vinyl propionate. <i>JAACS, Journal of the American Oil Chemists Society</i> , 1997 , 74, 435-439	1.8	6
50	Cold-induced enzyme inactivation: how does cooling lead to pyridoxal phosphate-aldimine bond cleavage in tryptophanase?. <i>BBA - Proteins and Proteomics</i> , 2002 , 1594, 335-40		6
49	Inhibition of tyrosine phenol-lyase from <i>Citrobacter freundii</i> by 2-azatyrosine and 3-azatyrosine. <i>Biochemistry</i> , 2001 , 40, 14862-8	3.2	6
48	Stereospecificity of <i>Pseudomonas fluorescens</i> kynureninase for diastereomers of beta-methylkynurenine. <i>Bioorganic and Medicinal Chemistry</i> , 1999 , 7, 1497-503	3.4	6
47	Inhibition of tyrosine phenol-lyase by tyrosine homologues. <i>Amino Acids</i> , 2016 , 48, 2243-51	3.5	6

46	Inhibition of Escherichia coli tryptophan indole-lyase by tryptophan homologues. <i>Archives of Biochemistry and Biophysics</i> , 2014 , 560, 20-6	4.1	5
45	Effects of pressure and osmolytes on the allosteric equilibria of Salmonella typhimurium tryptophan synthase. <i>Biochemistry</i> , 2012 , 51, 9354-63	3.2	5
44	Evidence of preorganization in quinonoid intermediate formation from L-Trp in H463F mutant Escherichia coli tryptophan indole-lyase from effects of pressure and pH. <i>Biochemistry</i> , 2012 , 51, 6527-33	3.2	5
43	Differential effects of temperature and hydrostatic pressure on the formation of quinonoid intermediates from L-Trp and L-Met by H463F mutant Escherichia coli tryptophan indole-lyase. <i>Biochemistry</i> , 2005 , 44, 14289-97	3.2	5
42	Cyclonerodiol from a Novel Source, Trichoderma koningii: Plant Growth Regulatory Activity. <i>Agricultural and Biological Chemistry</i> , 1991 , 55, 243-244		5
41	6-Nitro-L-tryptophan: a novel spectroscopic probe of trp aporepressor and human serum albumin. <i>Archives of Biochemistry and Biophysics</i> , 1988 , 262, 337-44	4.1	5
40	On the nature of the spontaneous activation of hepatic phenylalanine hydroxylase. <i>Transactions of the New York Academy of Sciences</i> , 1983 , 41, 87-95		5
39	Oxygen reactivity with pyridoxal 5Sphosphate enzymes: biochemical implications and functional relevance. <i>Amino Acids</i> , 2020 , 52, 1089-1105	3.5	5
38	Serine 51 residue of Citrobacter freundii tyrosine phenol-lyase assists in C-H proton abstraction and transfer in the reaction with substrate. <i>Biochimie</i> , 2018 , 147, 63-69	4.6	4
37	The crystal structure of Proteus vulgaris tryptophan indole-lyase complexed with oxindolyl-L-alanine: implications for the reaction mechanism. <i>Acta Crystallographica Section D: Structural Biology</i> , 2018 , 74, 748-759	5.5	4
36	A straightforward kinetic evidence for coexistence of "induced fit" and "selected fit" in the reaction mechanism of a mutant tryptophan indole lyase Y72F from Proteus vulgaris. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2014 , 1844, 1860-7	4	4
35	Benzimidazole analogs of (L)-tryptophan are substrates and inhibitors of tryptophan indole lyase from Escherichia coli. <i>FEBS Journal</i> , 2013 , 280, 1807-17	5.7	4
34	Cleavage of Escherichia coli tryptophan indole-lyase by trypsin at Lys406 affects the transmission of conformational changes associated with monovalent cation activation. <i>FEBS Journal</i> , 1998 , 255, 508-15		4
33	Pyridoxal phosphate binding to wild type, W330F, and C298S mutants of Escherichia coli apotryptophanase: unraveling the cold inactivation. <i>FEBS Letters</i> , 1998 , 433, 279-82	3.8	4
32	Regioselective nitration of N(alpha),N(1)-bis(trifluoroacetyl)-L-tryptophan methyl ester: efficient synthesis of 2-nitro and 6-nitro-N-trifluoroacetyl-L-tryptophan methyl ester. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2008 , 18, 5750-2	2.9	4
31	A matrix-assisted laser desorption/ionization compatible reagent for tagging tryptophan residues. <i>European Journal of Mass Spectrometry</i> , 2006 , 12, 213-21	1.1	4
30	Indole protects tryptophan indole-lyase, but not tryptophan synthase, from inactivation by trifluoroalanine. <i>Archives of Biochemistry and Biophysics</i> , 1992 , 296, 489-96	4.1	4
29	Pressure and Temperature Effects on the Formation of Aminoacrylate Intermediates of Tyrosine Phenol-lyase Demonstrate Reaction Dynamics. <i>ACS Catalysis</i> , 2020 , 10, 1692-1703	13.1	4

28	Secondary Alcohol Dehydrogenases from <i>Thermoanaerobacter pseudoethanolicus</i> and <i>Thermoanaerobacter brockii</i> as Robust Catalysts. <i>ChemBioChem</i> , 2021 , 22, 1884-1893	3.8	4
27	Structural Basis of the Stereochemistry of Inhibition of Tryptophan Synthase by Tryptophan and Derivatives. <i>Biochemistry</i> , 2021 , 60, 231-244	3.2	4
26	Crystal Structures of Wild-Type and F448A Mutant <i>Citrobacter freundii</i> Tyrosine Phenol-Lyase Complexed with a Substrate and Inhibitors: Implications for the Reaction Mechanism. <i>Biochemistry</i> , 2018 , 57, 6166-6179	3.2	4
25	STM2360 encodes a d-ornithine/d-lysine decarboxylase in <i>Salmonella enterica</i> serovar typhimurium. <i>Archives of Biochemistry and Biophysics</i> , 2017 , 634, 83-87	4.1	3
24	Phosphorylation of pyridoxal 5Sphosphate enzymes: an intriguing and neglected topic. <i>Amino Acids</i> , 2018 , 50, 205-215	3.5	3
23	Substituents effects on activity of kynureninase from <i>Homo sapiens</i> and <i>Pseudomonas fluorescens</i> . <i>Bioorganic and Medicinal Chemistry</i> , 2013 , 21, 4670-7	3.4	3
22	Mutagenesis of Met-151 and Thr-153 to alanine in <i>Thermoanaerobacter ethanolicus</i> secondary alcohol dehydrogenase changes substrate specificity for acetophenones. <i>Enzyme and Microbial Technology</i> , 2017 , 105, 59-63	3.8	3
21	Properties of tryptophan indole-lyase from a piezophilic bacterium, <i>Photobacterium profundum</i> SS9. <i>Archives of Biochemistry and Biophysics</i> , 2011 , 506, 35-41	4.1	3
20	LIPASE-CATALYZED ACYLATION OF MENTHOL WITH VINYL ACETATE IN ORGANIC MEDIA. <i>Journal of Food Lipids</i> , 1996 , 3, 189-198		3
19	Chlorine substituent effects for indole and tryptophan in ¹³ C NMR. <i>Journal of Heterocyclic Chemistry</i> , 1994 , 31, 711-716	1.9	3
18	The Kynurenine Pathway and Kynurenine 3-Monooxygenase Inhibitors.. <i>Molecules</i> , 2022 , 27,	4.8	3
17	Properties and mechanism of d-glucosaminat-6-phosphate ammonia-lyase: An aminotransferase family enzyme with d-amino acid specificity. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2018 , 1866, 799-805	4	2
16	Effects of hydrostatic pressure on the conformational equilibrium of tryptophan synthase from <i>Salmonella typhimurium</i> . <i>Annals of the New York Academy of Sciences</i> , 2010 , 1189, 95-103	6.5	2
15	Stopped-flow studies of the reaction of D-tartronate semialdehyde-2-phosphate with human neuronal enolase and yeast enolase 1. <i>FEBS Letters</i> , 2010 , 584, 979-83	3.8	2
14	New cases that expand the genotypic and phenotypic spectrum of Congenital NAD Deficiency Disorder. <i>Human Mutation</i> , 2021 , 42, 862-876	4.7	2
13	Preparation of 3-bromo-L-tyrosine and 3,5-dibromo-L-tyrosine. <i>Amino Acids</i> , 2013 , 44, 529-32	3.5	1
12	High pressure: a tool to improve the enzymatic production of glycosides. <i>High Pressure Research</i> , 2011 , 31, 475-487	1.6	1
11	Tryptophanase in aqueous methanol: the solvent effects and a probable mechanism of the hydrophobic control of substrate specificity. <i>Enzyme and Microbial Technology</i> , 2003 , 32, 843-850	3.8	1

10	Methyl substituent effects for methyltryptophans in ¹³ C nmr. <i>Journal of Heterocyclic Chemistry</i> , 1992 , 29, 1181-1187	1.9	1
9	Structure and Mechanism of d-Glucosaminatase-6-phosphate Ammonia-lyase: A Novel Octameric Assembly for a Pyridoxal 5Pphosphate-Dependent Enzyme, and Unprecedented Stereochemical Inversion in the Elimination Reaction of a d-Amino Acid. <i>Biochemistry</i> , 2021 , 60, 1609-1618	3.2	1
8	Site-Directed Mutagenesis of His343Ala in <i>Citrobacter freundii</i> Tyrosine Phenol-Lyase. Effects on the Kinetic Mechanism and Rate-Determining Step. <i>FEBS Journal</i> , 1995 , 229, 540-549		0
7	The crystal structure of the S154Y mutant carbonyl reductase from <i>Leifsonia xyli</i> explains enhanced activity for 3,5-Bis(trifluoromethyl)acetophenone reduction.. <i>Archives of Biochemistry and Biophysics</i> , 2022 , 109158	4.1	0
6	The roles of Ser-36, Asp-132 and Asp-201 in the reaction of <i>Pseudomonas fluorescens</i> Kynureninase. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2019 , 1867, 722-731	4	
5	Crystal structure of the Homo sapiens kynureninase-2-amino-3-hydroxyhippuric acid inhibitor complex. <i>FASEB Journal</i> , 2006 , 20, A895	0.9	
4	DEFINING SUBSTRATE SPECIFICITY IN TRYPTOPHAN SYNTHASE BETA-SUBUNIT HOMOLOGS. <i>FASEB Journal</i> , 2007 , 21, A1018	0.9	
3	NAD(P) Dependent Dehydrogenases1		
2	Enzymatic synthesis and biochemical reactions of fluorinated analogues of L-tyrosine and L-dopa 1990 , 166-172		
1	Studies of the Mechanism of Tyrosine Phenol-lyase: Kinetics and Site-Directed Mutagenesis 1994 , 193-197		