Frank M Raushel

List of Publications by Year
in descending order

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319 papers	13,651 citations	23500 58 h-index	34900 98 g-index
328 all docs	328 docs citations	328 times ranked	8231 citing authors

#	Article	IF	Citations
1	Discovery and Functional Characterization of a Clandestine ATP-Dependent Amidoligase in the Biosynthesis of the Capsular Polysaccharide from Campylobacter jejuni. Biochemistry, 2022, 61, 117-124.	1.2	2
2	Reaction Mechanism and Three-Dimensional Structure of GDP-<scp>d</scp>-glycero-Î±-<scp>d</scp>-manno-heptose 4,6-Dehydratase from Campylobacter jejuni. Biochemistry, 2022, 61, 1313-1322.	1.2	6
3	Functional and Structural Characterization of the UDP-Glucose Dehydrogenase Involved in Capsular Polysaccharide Biosynthesis from Campylobacter jejuni. Biochemistry, 2021, 60, 725-734.	1.2	5
4	A Clinical-Stage Cysteine Protease Inhibitor blocks SARS-CoV-2 Infection of Human and Monkey Cells. ACS Chemical Biology, 2021, 16, 642-650.	1.6	74
5	Biosynthesis of <scp>d</scp>-glycero-<scp>l</scp>-gluco-Heptose in the Capsular Polysaccharides of Campylobacter jejuni. Biochemistry, 2021, 60, 1552-1563.	1.2	13
6	From the Three-Dimensional Structure of Phosphotriesterase. Biochemistry, 2021, 60, 3413-3415.	1.2	7
7	Textile-based wearable solid-contact flexible fluoride sensor: Toward biodetection of G-type nerve agents. Biosensors and Bioelectronics, 2021, 182, 113172.	5.3	29
8	Substrate Analogues for the Enzyme-Catalyzed Detoxification of the Organophosphate Nerve Agentsâ€"Sarin, Soman, and Cyclosarin. Biochemistry, 2021, 60, 2875-2887.	1.2	4
9	Functional Characterization of Two PLP-Dependent Enzymes Involved in Capsular Polysaccharide Biosynthesis from Campylobacter jejuni. Biochemistry, 2021, 60, 2836-2843.	1.2	8
10	Second-Shell Amino Acid R266 Helps Determine N-Succinylamino Acid Racemase Reaction Specificity in Promiscuous N-Succinylamino Acid Racemase/o-Succinylbenzoate Synthase Enzymes. Biochemistry, 2021, 60, 3829-3840.	1.2	2
11	Atropselective Hydrolysis of Chiral Binol-Phosphate Esters Catalyzed by the Phosphotriesterase from Sphingobium sp. TCM1. Biochemistry, 2020, 59, 4463-4469.	1.2	4
12	A Chemoenzymatic Synthesis of the (R_P)-Isomer of the Antiviral Prodrug Remdesivir. Biochemistry, 2020, 59, 3038-3043.	1.2	14
13	Stereoselective Formation of Multiple Reaction Products by the Phosphotriesterase from Sphingobium sp. TCM1. Biochemistry, 2020, 59, 1273-1288.	1.2	8
14	Functional Characterization of Cj1427, a Unique Ping-Pong Dehydrogenase Responsible for the Oxidation of GDP-<scp>d</scp>-glycero-Î±-<scp>d</scp>-manno-heptose in Campylobacter jejuni. Biochemistry, 2020, 59, 1328-1337.	1.2	12
15	Structural Analysis of Cj1427, an Essential NAD-Dependent Dehydrogenase for the Biosynthesis of the Heptose Residues in the Capsular Polysaccharides of Campylobacter jejuni. Biochemistry, 2020, 59, 1314-1327.	1.2	15
16	Structure and Reaction Mechanism of YcjR, an Epimerase That Facilitates the Interconversion of d-Gulosides to d-Glucosides in Escherichia coli. Biochemistry, 2020, 59, 2069-2077.	1.2	0
17	Deciphering the Aldolase Function of STM3780 from a Bovine Enteric Infection-Related Gene Cluster in Salmonella enterica Serotype Typhimurium. Biochemistry, 2020, 59, 4573-4580.	1.2	1
18	Intrinsic GTPase Activity of K-RAS Monitored by Native Mass Spectrometry. Biochemistry, 2019, 58, 3396-3405.	1.2	25

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19	Functional Characterization of YdjH, a Sugar Kinase of Unknown Specificity in Escherichia coli K12. Biochemistry, 2019, 58, 3354-3364.	1.2	8
20	Structural and Functional Characterization of YdjI, an Aldolase of Unknown Specificity in Escherichia coli K12. Biochemistry, 2019, 58, 3340-3353.	1.2	12
21	Structure and Chemical Reaction Mechanism of LigU, an Enzyme That Catalyzes an Allylic Isomerization in the Bacterial Degradation of Lignin. Biochemistry, 2019, 58, 3494-3503.	1.2	1
22	Enzyme-Catalyzed Kinetic Resolution of Chiral Precursors to Antiviral Prodrugs. Biochemistry, 2019, 58, 3204-3211.	1.2	16
23	Biosynthesis of GDP-<scp>d</scp>-glycero-Î±-<scp>d</scp>-manno-heptose for the Capsular Polysaccharide of Campylobacter jejuni. Biochemistry, 2019, 58, 3893-3902.	1.2	20
24	The evolution of phosphotriesterase for decontamination and detoxification of organophosphorus chemical warfare agents. Chemico-Biological Interactions, 2019, 308, 80-88.	1.7	63
25	Overcoming the Challenges of Enzyme Evolution To Adapt Phosphotriesterase for V-Agent Decontamination. Biochemistry, 2019, 58, 2039-2053.	1.2	31
26	Manganese-Induced Substrate Promiscuity in the Reaction Catalyzed by Phosphoglutamine Cytidylyltransferase from Campylobacter jejuni. Biochemistry, 2019, 58, 2144-2151.	1.2	5
27	Deciphering the Enzymatic Function of the Bovine Enteric Infection-Related Protein YfeJ from Salmonella enterica Serotype Typhimurium. Biochemistry, 2019, 58, 1236-1245.	1.2	2
28	Functional Characterization of the ycjQRS Gene Cluster from Escherichia coli: A Novel Pathway for the Transformation of <scp>d</scp>-Gulosides to <scp>d</scp>-Glucosides. Biochemistry, 2019, 58, 1388-1399.	1.2	4
29	Transition State Analysis of the Reaction Catalyzed by the Phosphotriesterase from Sphingobium sp. TCM1. Biochemistry, 2019, 58, 1246-1259.	1.2	12
30	Nanoscavenger provides long-term prophylactic protection against nerve agents in rodents. Science Translational Medicine, 2019, 11, .	5.8	56
31	Multiple Reaction Products from the Hydrolysis of Chiral and Prochiral Organophosphate Substrates by the Phosphotriesterase from Sphingobium sp. TCM1. Biochemistry, 2018, 57, 1842-1846.	1.2	9
32	STRENDA DB: enabling the validation and sharing of enzyme kinetics data. FEBS Journal, 2018, 285, 2193-2204.	2.2	38
33	Discovery of a Kojibiose Phosphorylase in Escherichia coli K-12. Biochemistry, 2018, 57, 2857-2867.	1.2	23
34	Functional Annotation of LigU as a 1,3-Allylic Isomerase during the Degradation of Lignin in the Protocatechuate 4,5-Cleavage Pathway from the Soil Bacterium Sphingobium sp. SYK-6. Biochemistry, 2018, 57, 2837-2845.	1.2	16
35	Mechanism and Structure of Î³-Resorcylate Decarboxylase. Biochemistry, 2018, 57, 3167-3175.	1.2	30
36	Cytidine Diphosphoramidate Kinase: An Enzyme Required for the Biosynthesis of the O-Methyl Phosphoramidate Modification in the Capsular Polysaccharides of Campylobacter jejuni. Biochemistry, 2018, 57, 2238-2244.	1.2	18

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37	An OPAA enzyme mutant with increased catalytic efficiency on the nerve agents sarin, soman, and GP. Enzyme and Microbial Technology, 2018, 112, 65-71.	1.6	19
38	Substrate Profile of the Phosphotriesterase Homology Protein from Escherichia coli. Biochemistry, 2018, 57, 6219-6227.	1.2	5
39	Structure and Reaction Mechanism of the LigJ Hydratase: An Enzyme Critical for the Bacterial Degradation of Lignin in the Protocatechuate 4,5-Cleavage Pathway. Biochemistry, 2018, 57, 5841-5850.	1.2	11
40	An empirical analysis of enzyme function reporting for experimental reproducibility: Missing/incomplete information in published papers. Biophysical Chemistry, 2018, 242, 22-27.	1.5	19
41	Substrate Specificity and Chemical Mechanism for the Reaction Catalyzed by Glutamine Kinase. Biochemistry, 2018, 57, 5447-5455.	1.2	12
42	Structure, Mechanism, and Substrate Profiles of the Trinuclear Metallophosphatases from the Amidohydrolase Superfamily. Methods in Enzymology, 2018, 607, 187-216.	0.4	3
43	The Discovery of a Î²-Lactone Synthetase. Biochemistry, 2017, 56, 1175-1176.	1.2	6
44	A Combined Experimental-Theoretical Study of the LigW-Catalyzed Decarboxylation of 5-Carboxyvanillate in the Metabolic Pathway for Lignin Degradation. ACS Catalysis, 2017, 7, 4968-4974.	5.5	37
45	Biosynthesis of Nucleoside Diphosphoramidates in Campylobacter jejuni. Biochemistry, 2017, 56, 6079-6082.	1.2	15
46	Discovery of a Glutamine Kinase Required for the Biosynthesis of the O-Methyl Phosphoramidate Modifications Found in the Capsular Polysaccharides of Campylobacter jejuni. Journal of the American Chemical Society, 2017, 139, 9463-9466.	6.6	24
47	Finding homes for orphan enzymes. Perspectives in Science, 2016, 9, 3-7.	0.6	7
48	Structure of a Novel Phosphotriesterase from Sphingobium sp. TCM1: A Familiar Binuclear Metal Center Embedded in a Seven-Bladed Î²-Propeller Protein Fold. Biochemistry, 2016, 55, 3963-3974.	1.2	18
49	Substrate Distortion and the Catalytic Reaction Mechanism of 5-Carboxyvanillate Decarboxylase. Journal of the American Chemical Society, 2016, 138, 826-836.	6.6	41
50	Chemical Mechanism of the Phosphotriesterase from Sphingobium sp. Strain TCM1, an Enzyme Capable of Hydrolyzing Organophosphate Flame Retardants. Journal of the American Chemical Society, 2016, 138, 2921-2924.	6.6	29
51	Structures of the Carbon-Phosphorus Lyase Complex Reveal the Binding Mode of the NBD-like PhnK. Structure, 2016, 24, 37-42.	1.6	15
52	Interrogation of the Substrate Profile and Catalytic Properties of the Phosphotriesterase from Sphingobium sp. Strain TCM1: An Enzyme Capable of Hydrolyzing Organophosphate Flame Retardants and Plasticizers. Biochemistry, 2015, 54, 7539-7549.	1.2	32
53	Subunit Interactions within the Carbonâ€“Phosphorus Lyase Complex from Escherichia coli. Biochemistry, 2015, 54, 3400-3411.	1.2	8
54	Function Discovery and Structural Characterization of a Methylphosphonate Esterase. Biochemistry, 2015, 54, 2919-2930.	1.2	4

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55	Structure of N-Formimino-<scp>l</scp>-glutamate Iminohydrolase from Pseudomonas aeruginosa. Biochemistry, 2015, 54, 890-897.	1.2	3
56	PhnJ â€“ A novel radical SAM enzyme from the Câ€“P lyase complex. Perspectives in Science, 2015, 4, 32-37.	0.6	11
57	Discovery of a Previously Unrecognized Ribonuclease from Escherichia coli That Hydrolyzes 5â€²-Phosphorylated Fragments of RNA. Biochemistry, 2015, 54, 2911-2918.	1.2	13
58	Variants of Phosphotriesterase for the Enhanced Detoxification of the Chemical Warfare Agent VR. Biochemistry, 2015, 54, 5502-5512.	1.2	55
59	Discovery of a Bacterial 5-Methylcytosine Deaminase. Biochemistry, 2014, 53, 7426-7435.	1.2	11
60	Structural Characterization and Function Determination of a Nonspecific Carboxylate Esterase from the Amidohydrolase Superfamily with a Promiscuous Ability To Hydrolyze Methylphosphonate Esters. Biochemistry, 2014, 53, 3476-3485.	1.2	5
61	Substrate Deconstruction and the Nonadditivity of Enzyme Recognition. Journal of the American Chemical Society, 2014, 136, 7374-7382.	6.6	20
62	<scp>l</scp>-Galactose Metabolism in Bacteroides vulgatus from the Human Gut Microbiota. Biochemistry, 2014, 53, 4661-4670.	1.2	19
63	Prospecting for Unannotated Enzymes: Discovery of a 3â€²,5â€²-Nucleotide Bisphosphate Phosphatase within the Amidohydrolase Superfamily. Biochemistry, 2014, 53, 591-600.	1.2	15
64	Functional Annotation and Structural Characterization of a Novel Lactonase Hydrolyzing <scp>d</scp>-Xylono-1,4-lactone-5-phosphate and <scp>l</scp>-Arabino-1,4-lactone-5-phosphate. Biochemistry, 2014, 53, 4727-4738.	1.2	10
65	Reaction Mechanism of Zinc-Dependent Cytosine Deaminase from Escherichia coli: A Quantum-Chemical Study. Journal of Physical Chemistry B, 2014, 118, 5644-5652.	1.2	26
66	Standards for Reporting Enzyme Data: The STRENDA Consortium: What it aims to do and why it should be helpful. Perspectives in Science, 2014, 1, 131-137.	0.6	65
67	Molecular Engineering of Organophosphate Hydrolysis Activity from a Weak Promiscuous Lactonase Template. Journal of the American Chemical Society, 2013, 135, 11670-11677.	6.6	53
68	The enzymatic conversion of phosphonates to phosphate by bacteria. Current Opinion in Chemical Biology, 2013, 17, 589-596.	2.8	51
69	Deamination of 6-Aminodeoxyfutalosine in Menaquinone Biosynthesis by Distantly Related Enzymes. Biochemistry, 2013, 52, 6525-6536.	1.2	12
70	Structure-Guided Discovery of New Deaminase Enzymes. Journal of the American Chemical Society, 2013, 135, 13927-13933.	6.6	16
71	Potent Inhibition of the Câ€“P Lyase Nucleosidase PhnI by Immucillin-A Triphosphate. Biochemistry, 2013, 52, 7366-7368.	1.2	11
72	Discovery of a Cyclic Phosphodiesterase That Catalyzes the Sequential Hydrolysis of Both Ester Bonds to Phosphorus. Journal of the American Chemical Society, 2013, 135, 16360-16363.	6.6	20

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73	Not an Oxidase, But a Peroxidase. Science, 2013, 342, 943-944.	6.0	0
74	Discovery of a cAMP Deaminase That Quenches Cyclic AMP-Dependent Regulation. ACS Chemical Biology, 2013, 8, 2622-2629.	1.6	13
75	Structural and Mechanistic Characterization of <scp>l</scp>-Histidinol Phosphate Phosphatase from the Polymerase and Histidinol Phosphatase Family of Proteins. Biochemistry, 2013, 52, 1101-1112.	1.2	31
76	Assignment of Pterin Deaminase Activity to an Enzyme of Unknown Function Guided by Homology Modeling and Docking. Journal of the American Chemical Society, 2013, 135, 795-803.	6.6	32
77	The catalytic mechanism for aerobic formation of methane by bacteria. Nature, 2013, 497, 132-136.	13.7	90
78	Enzymatic Neutralization of the Chemical Warfare Agent VX: Evolution of Phosphotriesterase for Phosphorothiolate Hydrolysis. Journal of the American Chemical Society, 2013, 135, 10426-10432.	6.6	100
79	Catalytic mechanisms for phosphotriesterases. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2013, 1834, 443-453.	1.1	190
80	Functional Annotation and Three-Dimensional Structure of an Incorrectly Annotated Dihydroorotase from cog3964 in the Amidohydrolase Superfamily. Biochemistry, 2013, 52, 228-238.	1.2	8
81	W. W. â€œMoâ€•Cleland: A Catalytic Life. Biochemistry, 2013, 52, 9092-9096.	1.2	6
82	Discovery of an <scp>l</scp>-Fucono-1,5-lactonase from cog3618 of the Amidohydrolase Superfamily. Biochemistry, 2013, 52, 239-253.	1.2	19
83	Structure and Catalytic Mechanism of LigI: Insight into the Amidohydrolase Enzymes of cog3618 and Lignin Degradation. Biochemistry, 2012, 51, 3497-3507.	1.2	32
84	Enzymes for the Homeland Defense: Optimizing Phosphotriesterase for the Hydrolysis of Organophosphate Nerve Agents. Biochemistry, 2012, 51, 6463-6475.	1.2	102
85	On the Catalytic Mechanism of Human ATP Citrate Lyase. Biochemistry, 2012, 51, 5198-5211.	1.2	33
86	Structure-Based Function Discovery of an Enzyme for the Hydrolysis of Phosphorylated Sugar Lactones. Biochemistry, 2012, 51, 1762-1773.	1.2	16
87	Catalytic Mechanism and Three-Dimensional Structure of Adenine Deaminase[,]. Biochemistry, 2011, 50, 1917-1927.	1.2	42
88	The Enzyme Function Initiative. Biochemistry, 2011, 50, 9950-9962.	1.2	169
89	Three-Dimensional Structure and Catalytic Mechanism of Cytosine Deaminase. Biochemistry, 2011, 50, 5077-5085.	1.2	30
90	Rescue of the Orphan Enzyme Isoguanine Deaminase. Biochemistry, 2011, 50, 5555-5557.	1.2	10

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91	Enzymatic Deamination of the Epigenetic Base N-6-Methyladenine. Journal of the American Chemical Society, 2011, 133, 2080-2083.	6.6	24
92	Pa0148 fromPseudomonas aeruginosaCatalyzes the Deamination of Adenine. Biochemistry, 2011, 50, 6589-6597.	1.2	18
93	Intermediates in the transformation of phosphonates to phosphate by bacteria. Nature, 2011, 480, 570-573.	13.7	112
94	Discovery of a Cytokinin Deaminase. ACS Chemical Biology, 2011, 6, 1036-1040.	1.6	15
95	Catalytic detoxification. Nature, 2011, 469, 310-311.	13.7	96
96	The catalase activity of diiron adenine deaminase. Protein Science, 2011, 20, 2080-2094.	3.1	14
97	Discovery and Structure Determination of the Orphan Enzyme Isoxanthopterin Deaminase,. Biochemistry, 2010, 49, 4374-4382.	1.2	18
98	Functional Identification and Structure Determination of Two Novel Prolidases from cog1228 in the Amidohydrolase Superfamily,. Biochemistry, 2010, 49, 6791-6803.	1.2	18
99	Carbamate Transport in Carbamoyl Phosphate Synthetase: A Theoretical and Experimental Investigation. Journal of the American Chemical Society, 2010, 132, 3870-3878.	6.6	13
100	The Hunt for 8-Oxoguanine Deaminase. Journal of the American Chemical Society, 2010, 132, 1762-1763.	6.6	34
101	Structure, Mechanism, and Substrate Profile for Sco3058: The Closest Bacterial Homologue to Human Renal Dipeptidase,. Biochemistry, 2010, 49, 611-622.	1.2	15
102	Structural Determinants for the Stereoselective Hydrolysis of Chiral Substrates by Phosphotriesterase. Biochemistry, 2010, 49, 7988-7997.	1.2	25
103	Stereoselective Hydrolysis of Organophosphate Nerve Agents by the Bacterial Phosphotriesterase. Biochemistry, 2010, 49, 7978-7987.	1.2	98
104	A Conserved Glutamate Controls the Commitment to Acyl-Adenylate Formation in Asparagine Synthetase. Biochemistry, 2010, 49, 9391-9401.	1.2	6
105	Target selection and annotation for the structural genomics of the amidohydrolase and enolase superfamilies. Journal of Structural and Functional Genomics, 2009, 10, 107-125.	1.2	25
106	The Mechanism of the Reaction Catalyzed by Uronate Isomerase Illustrates How an Isomerase May Have Evolved from a Hydrolase within the Amidohydrolase Superfamily. Biochemistry, 2009, 48, 8879-8890.	1.2	13
107	Annotating Enzymes of Uncertain Function: The Deacylation of <scp>d</scp>-Amino Acids by Members of the Amidohydrolase Superfamily[,]. Biochemistry, 2009, 48, 6469-6481.	1.2	15
108	Functional Identification of Incorrectly Annotated Prolidases from the Amidohydrolase Superfamily of Enzymes. Biochemistry, 2009, 48, 3730-3742.	1.2	18

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109	Functional Annotation and Three-Dimensional Structure of Dr0930 from Deinococcus radiodurans, a Close Relative of Phosphotriesterase in the Amidohydrolase Superfamily. Biochemistry, 2009, 48, 2237-2247.	1.2	82
110	Functional Annotation of Two New Carboxypeptidases from the Amidohydrolase Superfamily of Enzymes. Biochemistry, 2009, 48, 4567-4576.	1.2	19
111	A Combined Theoretical and Experimental Study of the Ammonia Tunnel in Carbamoyl Phosphate Synthetase. Journal of the American Chemical Society, 2009, 131, 10211-10219.	6.6	30
112	Functional Annotation of Unknown Enzymes within the Amidohydrolase Superfamily. FASEB Journal, 2009, 23, 674.2.	0.2	0
113	Theoretical Investigation of the Reaction Mechanism of the Dinuclear Zinc Enzyme Dihydroorotase. Chemistry - A European Journal, 2008, 14, 4287-4292.	1.7	47
114	Computational Design of Enzymes. Chemistry and Biology, 2008, 15, 421-423.	6.2	24
115	Positional Isotope Exchange Analysis of the Mycobacterium smegmatis Cysteine Ligase (MshC). Biochemistry, 2008, 47, 4843-4850.	1.2	15
116	Structure of Diethyl Phosphate Bound to the Binuclear Metal Center of Phosphotriesterase. Biochemistry, 2008, 47, 9497-9504.	1.2	67
117	At the Periphery of the Amidohydrolase Superfamily:â€‰ Bh0493 from Bacillus halodurans Catalyzes the Isomerization of <scp>d</scp>-Galacturonate to <scp>d</scp>-Tagaturonate[,]. Biochemistry, 2008, 47, 1194-1206.	1.2	25
118	A Common Catalytic Mechanism for Proteins of the HutI Family. Biochemistry, 2008, 47, 5608-5615.	1.2	10
119	Mechanism for the Transport of Ammonia within Carbamoyl Phosphate Synthetase Determined by Molecular Dynamics Simulations. Biochemistry, 2008, 47, 2935-2944.	1.2	17
120	Characterization of a Phosphodiesterase Capable of Hydrolyzing EA 2192, the Most Toxic Degradation Product of the Nerve Agent VX. Biochemistry, 2007, 46, 9032-9040.	1.2	81
121	N-Acetyl-d-glucosamine-6-phosphate Deacetylase:â€‰ Substrate Activation via a Single Divalent Metal Ion. Biochemistry, 2007, 46, 7942-7952.	1.2	31
122	The Multiple Amidation Reactions Catalyzed by Cobyric Acid Synthetase fromSalmonellatyphimuriumAre Sequential and Dissociative. Journal of the American Chemical Society, 2007, 129, 294-295.	6.6	14
123	Partial Randomization of the Four Sequential Amidation Reactions Catalyzed by Cobyric Acid Synthetase with a Single Point Mutation. Biochemistry, 2007, 46, 13983-13993.	1.2	8
124	Activation of the Binuclear Metal Center through Formation of Phosphotriesteraseâ^'Inhibitor Complexesâ€. Biochemistry, 2007, 46, 3435-3442.	1.2	26
125	Kinetic Evidence Supports the Existence of Two Halide Binding Sites that Have a Distinct Impact on the Heme Iron Microenvironment in Myeloperoxidaseâ€. Biochemistry, 2007, 46, 398-405.	1.2	25
126	Structural Diversity within the Mononuclear and Binuclear Active Sites of N-Acetyl-d-glucosamine-6-phosphate Deacetylase,. Biochemistry, 2007, 46, 7953-7962.	1.2	23

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127	Differentiation of chiral phosphorus enantiomers by 31P and 1H NMR spectroscopy using amino acid derivatives as chemical solvating agents. Tetrahedron: Asymmetry, 2007, 18, 1391-1397.	1.8	24
128	Structure-based activity prediction for an enzyme of unknown function. Nature, 2007, 448, 775-779.	13.7	249
129	Predicting Substrates by Docking High-Energy Intermediates to Enzyme Structures. Journal of the American Chemical Society, 2006, 128, 15882-15891.	6.6	101
130	Tight Binding Inhibitors ofN-Acyl Amino Sugar andN-Acyl Amino Acid Deacetylases. Journal of the American Chemical Society, 2006, 128, 4244-4245.	6.6	22
131	Annotating Enzymes of Unknown Function:â€‰ N-Formimino-l-glutamate Deiminase Is a Member of the Amidohydrolase Superfamily. Biochemistry, 2006, 45, 1997-2005.	1.2	39
132	Sensitivity and Specificity Improvement of an Ion Sensitive Field Effect Transistors-Based Biosensor for Potato Glycoalkaloids Detection. Journal of Agricultural and Food Chemistry, 2006, 54, 707-712.	2.4	17
133	Evolution of Enzymatic Activities in the Enolase Superfamily:â€‰ N-Succinylamino Acid Racemase and a New Pathway for the Irreversible Conversion of d- to l-Amino Acids. Biochemistry, 2006, 45, 4455-4462.	1.2	56
134	Mechanistic Characterization of N-Formimino-l-glutamate Iminohydrolase from Pseudomonas aeruginosa. Biochemistry, 2006, 45, 14256-14262.	1.2	9
135	Resolution of Chiral Phosphate, Phosphonate, and Phosphinate Esters by an Enantioselective Enzyme Library. Journal of the American Chemical Society, 2006, 128, 15892-15902.	6.6	62
136	Uronate Isomerase:â€‰ A Nonhydrolytic Member of the Amidohydrolase Superfamily with an Ambivalent Requirement for a Divalent Metal Ion. Biochemistry, 2006, 45, 7453-7462.	1.2	26
137	Tunneling of intermediates in enzyme-catalyzed reactions. Current Opinion in Chemical Biology, 2006, 10, 465-472.	2.8	60
138	Phosphotriesterase: An Enzyme in Search of Its Natural Substrate. Advances in Enzymology and Related Areas of Molecular Biology, 2006, 74, 51-93.	1.3	44
139	Stereospecificity in the enzymatic hydrolysis of cyclosarin (GF). Enzyme and Microbial Technology, 2005, 37, 547-555.	1.6	29
140	Inhibitors designed for the active site of dihydroorotase. Bioorganic Chemistry, 2005, 33, 470-483.	2.0	15
141	Functional significance of Glu-77 and Tyr-137 within the active site of isoaspartyl dipeptidase. Bioorganic Chemistry, 2005, 33, 448-458.	2.0	9
142	Detoxification of organophosphate nerve agents by bacterial phosphotriesterase. Toxicology and Applied Pharmacology, 2005, 207, 459-470.	1.3	159
143	Phospholipid-Based Catalytic Nanocapsules. Advanced Functional Materials, 2005, 15, 267-272.	7.8	19
144	Protonation of the Binuclear Metal Center within the Active Site of Phosphotriesteraseâ€. Biochemistry, 2005, 44, 11005-11013.	1.2	39

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145	Mechanism of the Reaction Catalyzed by Isoaspartyl Dipeptidase fromEscherichia coliâ€,â€¡. Biochemistry, 2005, 44, 7115-7124.	1.2	38
146	Structural and Catalytic Diversity within the Amidohydrolase Superfamilyâ€. Biochemistry, 2005, 44, 6383-6391.	1.2	363
147	Virtual Screening against Metalloenzymes for Inhibitors and Substratesâ€. Biochemistry, 2005, 44, 12316-12328.	1.2	125
148	Kinetic mechanism of asparagine synthetase from Vibrio cholerae. Bioorganic Chemistry, 2004, 32, 63-75.	2.0	17
149	Enzymatic Resolution of Chiral Phosphinate Esters. Journal of the American Chemical Society, 2004, 126, 8888-8889.	6.6	37
150	A Novel Multistep Mechanism for Oxygen Binding to Ferrous Hemoproteins:Â Rapid Kinetic Analysis of Ferrous-Dioxy Myeloperoxidase (Compound III) Formationâ€. Biochemistry, 2004, 43, 11589-11595.	1.2	15
151	Mechanism of the Dihydroorotase Reactionâ€. Biochemistry, 2004, 43, 16285-16292.	1.2	64
152	Mechanism of Cobyrinic Acid a,c-Diamide Synthetase from Salmonella typhimurium LT2. Biochemistry, 2004, 43, 10619-10627.	1.2	33
153	Long-range allosteric transitions in carbamoyl phosphate synthetase. Protein Science, 2004, 13, 2398-2405.	3.1	19
154	Perforation of the Tunnel Wall in Carbamoyl Phosphate Synthetase Derails the Passage of Ammonia between Sequential Active Sitesâ€. Biochemistry, 2004, 43, 5334-5340.	1.2	23
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