John P Richard

List of Publications by Year
in descending order

232 papers	9,404 citations	31976 53 h-index	56724 83 g-index
247 all docs	247 docs citations	247 times ranked	5179 citing authors

#	Article	IF	Citations
1	The role of remote flavin adenine dinucleotide pieces in the oxidative decarboxylation catalyzed by salicylate hydroxylase. Bioorganic Chemistry, 2022, 119, 105561.	4.1	3
2	Glycerol-3-Phosphate Dehydrogenase: The K120 and K204 Side Chains Define an Oxyanion Hole at the Enzyme Active Site. Biochemistry, 2022, 61, 856-867.	2.5	3
3	Enabling Role of Ligand-Driven Conformational Changes in Enzyme Evolution. Biochemistry, 2022, 61, 1533-1542.	2.5	21
4	Phosphodianion Activation of Enzymes for Catalysis of Central Metabolic Reactions. Journal of the American Chemical Society, 2021, 143, 2694-2698.	13.7	12
5	Linear Free Energy Relationships for Enzymatic Reactions: Fresh Insight from a Venerable Probe. Accounts of Chemical Research, 2021, 54, 2532-2542.	15.6	6
6	Adenylate Kinase-Catalyzed Reaction of AMP in Pieces: Enzyme Activation for Phosphoryl Transfer to Phosphite Dianion. Biochemistry, 2021, 60, 2672-2676.	2.5	6
7	Origin of Free Energy Barriers of Decarboxylation and the Reverse Process of CO₂ Capture in Dimethylformamide and in Water. Journal of the American Chemical Society, 2021, 143, 137-141.	13.7	16
8	Proteinâ€“Ribofuranosyl Interactions Activate Orotidine 5â€²-Monophosphate Decarboxylase for Catalysis. Biochemistry, 2021, 60, 3362-3373.	2.5	5
9	Modeling the Role of a Flexible Loop and Active Site Side Chains in Hydride Transfer Catalyzed by Glycerol-3-phosphate Dehydrogenase. ACS Catalysis, 2020, 10, 11253-11267.	11.2	14
10	Hydride Transfer Catalyzed by Glycerol Phosphate Dehydrogenase: Recruitment of an Acidic Amino Acid Side Chain to Rescue a Damaged Enzyme. Biochemistry, 2020, 59, 4856-4863.	2.5	6
11	The Organization of Active Site Side Chains of Glycerol-3-phosphate Dehydrogenase Promotes Efficient Enzyme Catalysis and Rescue of Variant Enzymes. Biochemistry, 2020, 59, 1582-1591.	2.5	9
12	Orotidine 5â€²-Monophosphate Decarboxylase: The Operation of Active Site Chains Within and Across Protein Subunits. Biochemistry, 2020, 59, 2032-2040.	2.5	6
13	Role of the Carboxylate in Enzyme-Catalyzed Decarboxylation of Orotidine 5â€²-Monophosphate: Transition State Stabilization Dominates Over Ground State Destabilization. Journal of the American Chemical Society, 2019, 141, 13468-13478.	13.7	9
14	Uncovering the Role of Key Active-Site Side Chains in Catalysis: An Extended BrÃ¸nsted Relationship for Substrate Deprotonation Catalyzed by Wild-Type and Variants of Triosephosphate Isomerase. Journal of the American Chemical Society, 2019, 141, 16139-16150.	13.7	15
15	Protein Flexibility and Stiffness Enable Efficient Enzymatic Catalysis. Journal of the American Chemical Society, 2019, 141, 3320-3331.	13.7	91
16	Human Glycerol 3-Phosphate Dehydrogenase: X-ray Crystal Structures That Guide the Interpretation of Mutagenesis Studies. Biochemistry, 2019, 58, 1061-1073.	2.5	15
17	The role of ligand-gated conformational changes in enzyme catalysis. Biochemical Society Transactions, 2019, 47, 1449-1460.	3.4	12
18	Role of Ligand-Driven Conformational Changes in Enzyme Catalysis: Modeling the Reactivity of the Catalytic Cage of Triosephosphate Isomerase. Journal of the American Chemical Society, 2018, 140, 3854-3857.	13.7	27

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19	Enzyme Architecture: The Role of a Flexible Loop in Activation of Glycerol-3-phosphate Dehydrogenase for Catalysis of Hydride Transfer. Biochemistry, 2018, 57, 3227-3236.	2.5	21
20	Orotidine 5â€²-Monophosphate Decarboxylase: Probing the Limits of the <i>Possible</i> for Enzyme Catalysis. Accounts of Chemical Research, 2018, 51, 960-969.	15.6	31
21	Enzyme Architecture: Breaking Down the Catalytic Cage that Activates Orotidine 5â€²-Monophosphate Decarboxylase for Catalysis. Journal of the American Chemical Society, 2018, 140, 17580-17590.	13.7	11
22	Primary Deuterium Kinetic Isotope Effects: A Probe for the Origin of the Rate Acceleration for Hydride Transfer Catalyzed by Glycerol-3-Phosphate Dehydrogenase. Biochemistry, 2018, 57, 4338-4348.	2.5	11
23	Enzyme Architecture: Amino Acid Side-Chains That Function To Optimize the Basicity of the Active Site Glutamate of Triosephosphate Isomerase. Journal of the American Chemical Society, 2018, 140, 8277-8286.	13.7	25
24	Substituent Effects on Carbon Acidity in Aqueous Solution and at Enzyme Active Sites. Synlett, 2017, 28, 1407-1421.	1.8	6
25	Enzyme Architecture: Erection of Active Orotidine 5â€²-Monophosphate Decarboxylase by Substrate-Induced Conformational Changes. Journal of the American Chemical Society, 2017, 139, 16048-16051.	13.7	14
26	A reevaluation of the origin of the rate acceleration for enzyme-catalyzed hydride transfer. Organic and Biomolecular Chemistry, 2017, 15, 8856-8866.	2.8	4
27	Enzyme Architecture: Modeling the Operation of a Hydrophobic Clamp in Catalysis by Triosephosphate Isomerase. Journal of the American Chemical Society, 2017, 139, 10514-10525.	13.7	38
28	Primary Deuterium Kinetic Isotope Effects From Product Yields: Rationale, Implementation, and Interpretation. Methods in Enzymology, 2017, 596, 163-177.	1.0	3
29	Enzyme Architecture: Self-Assembly of Enzyme and Substrate Pieces of Glycerol-3-Phosphate Dehydrogenase into a Robust Catalyst of Hydride Transfer. Journal of the American Chemical Society, 2016, 138, 15251-15259.	13.7	19
30	Structureâ€"Reactivity Effects on Intrinsic Primary Kinetic Isotope Effects for Hydride Transfer Catalyzed by Glycerol-3-phosphate Dehydrogenase. Journal of the American Chemical Society, 2016, 138, 14526-14529.	13.7	10
31	Structureâ€"Function Studies of Hydrophobic Residues That Clamp a Basic Glutamate Side Chain during Catalysis by Triosephosphate Isomerase. Biochemistry, 2016, 55, 3036-3047.	2.5	21
32	Formation and mechanism for reactions of ringâ€substituted phenonium ions in aqueous solution. Journal of Physical Organic Chemistry, 2016, 29, 557-564.	1.9	14
33	Enzyme Architecture: A Startling Role for Asn270 in Glycerol 3-Phosphate Dehydrogenase-Catalyzed Hydride Transfer. Biochemistry, 2016, 55, 1429-1432.	2.5	12
34	The Activating Oxydianion Binding Domain for Enzyme-Catalyzed Proton Transfer, Hydride Transfer, and Decarboxylation: Specificity and Enzyme Architecture. Journal of the American Chemical Society, 2015, 137, 1372-1382.	13.7	45
35	Swainâ€"Scott relationships for nucleophile addition to ring-substituted phenonium ions. Canadian Journal of Chemistry, 2015, 93, 428-434.	1.1	2
36	Rate and Equilibrium Constants for an Enzyme Conformational Change during Catalysis by Orotidine 5â€²-Monophosphate Decarboxylase. Biochemistry, 2015, 54, 4555-4564.	2.5	18

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37	Enzyme Architecture: Optimization of Transition State Stabilization from a Cationâ€"Phosphodianion Pair. Journal of the American Chemical Society, 2015, 137, 5312-5315.	13.7	29
38	Role of Loop-Clamping Side Chains in Catalysis by Triosephosphate Isomerase. Journal of the American Chemical Society, 2015, 137, 15185-15197.	13.7	38
39	Enzyme and coenzyme reaction mechanisms: Editorial overview. Bioorganic Chemistry, 2014, 57, 169-170.	4.1	3
40	Reflections on the catalytic power of a TIM-barrel. Bioorganic Chemistry, 2014, 57, 206-212.	4.1	35
41	Mechanistic imperatives for deprotonation of carbon catalyzed by triosephosphate isomerase: enzyme activation by phosphite dianion,. Journal of Physical Organic Chemistry, 2014, 27, 269-276.	1.9	10
42	Enzyme architecture: on the importance of being in a protein cage. Current Opinion in Chemical Biology, 2014, 21, 1-10.	6.1	91
43	Enzyme Architecture: The Effect of Replacement and Deletion Mutations of Loop 6 on Catalysis by Triosephosphate Isomerase. Biochemistry, 2014, 53, 3486-3501.	2.5	23
44	Enzyme Architecture: Remarkably Similar Transition States for Triosephosphate Isomerase-Catalyzed Reactions of the Whole Substrate and the Substrate in Pieces. Journal of the American Chemical Society, 2014, 136, 4145-4148.	13.7	33
45	Enzyme Architecture: Deconstruction of the Enzyme-Activating Phosphodianion Interactions of Orotidine 5â€²-Monophosphate Decarboxylase. Journal of the American Chemical Society, 2014, 136, 10156-10165.	13.7	31
46	Role of a Guanidinium Cationâ€"Phosphodianion Pair in Stabilizing the Vinyl Carbanion Intermediate of Orotidine 5â€²-Phosphate Decarboxylase-Catalyzed Reactions. Biochemistry, 2013, 52, 7500-7511.	2.5	22
47	Specificity in Transition State Binding: The Pauling Model Revisited. Biochemistry, 2013, 52, 2021-2035.	2.5	96
48	Enzymatic Rate Enhancements: A Review and Perspective. Biochemistry, 2013, 52, 2009-2011.	2.5	27
49	Magnitude and Origin of the Enhanced Basicity of the Catalytic Glutamate of Triosephosphate Isomerase. Journal of the American Chemical Society, 2013, 135, 5978-5981.	13.7	41
50	Structural Mutations That Probe the Interactions between the Catalytic and Dianion Activation Sites of Triosephosphate Isomerase. Biochemistry, 2013, 52, 5928-5940.	2.5	29
51	Enzyme Architecture: The Activating Oxydianion Binding Domain for Orotidine 5â€²-Monophophate Decarboxylase. Journal of the American Chemical Society, 2013, 135, 18343-18346.	13.7	15
52	Catalysis by Orotidine 5â€²-Monophosphate Decarboxylase: Effect of 5-Fluoro and 4â€²-Substituents on the Decarboxylation of Two-Part Substrates. Biochemistry, 2013, 52, 537-546.	2.5	24
53	Substituent effects on the formation and nucleophile selectivity of ringâ€substituted phenonium ions in aqueous solution. Journal of Physical Organic Chemistry, 2013, 26, 970-976.	1.9	8
54	Conformational Changes in Orotidine 5â€²-Monophosphate Decarboxylase: A Structure-Based Explanation for How the 5â€²-Phosphate Group Activates the Enzyme. Biochemistry, 2012, 51, 8665-8678.	2.5	13

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55	Isopentenyl Diphosphate Isomerase Catalyzed Reactions in D2O: Product Release Limits the Rate of This Sluggish Enzyme-Catalyzed Reaction. Journal of the American Chemical Society, 2012, 134, 6568-6570.	13.7	17
56	Mechanism for Activation of Triosephosphate Isomerase by Phosphite Dianion: The Role of a Hydrophobic Clamp. Journal of the American Chemical Society, 2012, 134, 10286-10298.	13.7	35
57	Proton Transfer from C-6 of Uridine 5â€²-Monophosphate Catalyzed by Orotidine 5â€²-Monophosphate Decarboxylase: Formation and Stability of a Vinyl Carbanion Intermediate and the Effect of a 5-Fluoro Substituent. Journal of the American Chemical Society, 2012, 134, 14580-14594.	13.7	37
58	A Paradigm for Enzyme-Catalyzed Proton Transfer at Carbon: Triosephosphate Isomerase. Biochemistry, 2012, 51, 2652-2661.	2.5	69
59	Orotidine 5â€²-Monophosphate Decarboxylase: Transition State Stabilization from Remote Proteinâ€"Phosphodianion Interactions. Biochemistry, 2012, 51, 4630-4632.	2.5	39
60	Wildtype and Engineered Monomeric Triosephosphate Isomerase fromTrypanosoma brucei: Partitioning of Reaction Intermediates in D2O and Activation by Phosphite Dianion. Biochemistry, 2011, 50, 5767-5779.	2.5	25
61	Binding Energy and Catalysis by <scp>d</scp>-Xylose Isomerase: Kinetic, Product, and X-ray Crystallographic Analysis of Enzyme-Catalyzed Isomerization of (<i>R</i>)-Glyceraldehyde. Biochemistry, 2011, 50, 10170-10181.	2.5	15
62	Substituent Effects on Electrophilic Catalysis by the Carbonyl Group: Anatomy of the Rate Acceleration for PLP-Catalyzed Deprotonation of Glycine. Journal of the American Chemical Society, 2011, 133, 3173-3183.	13.7	40
63	Formation and Stability of the 4-Methoxyphenonium Ion in Aqueous Solution. Journal of Organic Chemistry, 2011, 76, 9568-9571.	3.2	8
64	OMP Decarboxylase: Phosphodianion Binding Energy Is Used To Stabilize a Vinyl Carbanion Intermediate. Journal of the American Chemical Society, 2011, 133, 6545-6548.	13.7	41
65	The generation and reactions of quinone methides. Advances in Physical Organic Chemistry, 2011, 45, 39-91.	0.5	114
66	Mechanism for Activation of Triosephosphate Isomerase by Phosphite Dianion: The Role of a Ligand-Driven Conformational Change. Journal of the American Chemical Society, 2011, 133, 16428-16431.	13.7	39
67	The PLP cofactor: Lessons from studies on model reactions. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2011, 1814, 1419-1425.	2.3	14
68	William Platt Jencks. 15 August 1927 â€" 3 January 2007. Biographical Memoirs of Fellows of the Royal Society, 2011, 57, 179-188.	0.1	0
69	Enzymatic catalysis of proton transfer and decarboxylation reactions. Pure and Applied Chemistry, 2011, 83, 1555-1565.	1.9	6
70	Biographical Essay: A. Jerry Kresge. Advances in Physical Organic Chemistry, 2010, 44, xiii-xxiii.	0.5	0
71	A role for flexible loops in enzyme catalysis. Current Opinion in Structural Biology, 2010, 20, 702-710.	5.7	149
72	Dynamics for reactions of ion pairs in aqueous solution: reactivity of tosylate anion ion paired with the highly destabilized 1â€(4â€methylphenyl)â€2,2,2â€trifluoroethyl carbocation. Journal of Physical Organic Chemistry, 2010, 23, 730-734.	1.9	9

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73	Role of Lys-12 in Catalysis by Triosephosphate Isomerase: A Two-Part Substrate Approach. Biochemistry, 2010, 49, 5377-5389.	2.5	57
74	Product Deuterium Isotope Effects for Orotidine 5â€²-Monophosphate Decarboxylase: Effect of Changing Substrate and Enzyme Structure on the Partitioning of the Vinyl Carbanion Reaction Intermediate. Journal of the American Chemical Society, 2010, 132, 7018-7024.	13.7	24
75	Bovine Serum Albumin-Catalyzed Deprotonation of [1-¹³C]Glycolaldehyde: Protein Reactivity toward Deprotonation of the Î±-Hydroxy Î±-Carbonyl Carbon. Biochemistry, 2010, 49, 7704-7708.	2.5	10
76	Rescue of K12G Triosephosphate Isomerase by Ammonium Cations: The Reaction of an Enzyme in Pieces. Journal of the American Chemical Society, 2010, 132, 13525-13532.	13.7	36
77	Activation of R235A Mutant Orotidine 5â€²-Monophosphate Decarboxylase by the Guanidinium Cation: Effective Molarity of the Cationic Side Chain of Arg-235. Biochemistry, 2010, 49, 824-826.	2.5	41
78	Conformational Changes in Orotidine 5â€²-Monophosphate Decarboxylase: â€œRemoteâ€• Residues That Stabilize the Active Conformation. Biochemistry, 2010, 49, 3514-3516.	2.5	17
79	Hydron Transfer Catalyzed by Triosephosphate Isomerase. Products of the Direct and Phosphite-Activated Isomerization of [1-¹³C]-Glycolaldehyde in D₂O. Biochemistry, 2009, 48, 5769-5778.	2.5	54
80	Pyridoxal 5â€²-phosphate: electrophilic catalyst extraordinaire. Current Opinion in Chemical Biology, 2009, 13, 475-483.	6.1	61
81	Punching Holes in an Enzyme. Chemistry and Biology, 2009, 16, 915-917.	6.0	0
82	Structureâˆ'Reactivity Effects on Primary Deuterium Isotope Effects on Protonation of Ring-Substituted Î±-Methoxystyrenes. Journal of the American Chemical Society, 2009, 131, 13952-13962.	13.7	17
83	Mechanism of the Orotidine 5â€²-Monophosphate Decarboxylase-Catalyzed Reaction: Effect of Solvent Viscosity on Kinetic Constants. Biochemistry, 2009, 48, 5510-5517.	2.5	34
84	An Examination of the Relationship between Active Site Loop Size and Thermodynamic Activation Parameters for Orotidine 5â€²-Monophosphate Decarboxylase from Mesophilic and Thermophilic Organisms. Biochemistry, 2009, 48, 8006-8013.	2.5	32
85	Theoretical Analysis of Kinetic Isotope Effects on Proton Transfer Reactions between Substituted Î±-Methoxystyrenes and Substituted Acetic Acids. Journal of the American Chemical Society, 2009, 131, 13963-13971.	13.7	30
86	Mechanism of the Orotidine 5â€²-Monophosphate Decarboxylase-Catalyzed Reaction: Evidence for Substrate Destabilization[,]. Biochemistry, 2009, 48, 5518-5531.	2.5	58
87	Substituent Effects on the Thermodynamic Stability of Imines Formed from Glycine and Aromatic Aldehydes: Implications for the Catalytic Activity of Pyridoxal-5â€²-phosphate. Journal of the American Chemical Society, 2009, 131, 15815-15824.	13.7	58
88	Structureâ€reactivity relationships for <i>Î²</i>â€galactosidase (<i>Escherichia coli, lac Z</i>): a second derivative effect on <i>Î²</i>_{nuc} for addition of alkyl alcohols to an oxocarbenium ion reaction intermediate. Journal of Physical Organic Chemistry, 2008, 21, 531-537.	1.9	5
89	Alanine-dependent reactions of 5â€²-deoxypyridoxal in water. Bioorganic Chemistry, 2008, 36, 295-298.	4.1	5
90	Slow proton transfer from the hydrogen-labelled carboxylic acid side chain (Glu-165) of triosephosphate isomerase to imidazole buffer in D2O. Organic and Biomolecular Chemistry, 2008, 6, 391-396.	2.8	12

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91	Phosphate Binding Energy and Catalysis by Small and Large Molecules. Accounts of Chemical Research, 2008, 41, 539-548.	15.6	105
92	Formation and Stability of a Vinyl Carbanion at the Active Site of Orotidine 5â€˜-Monophosphate Decarboxylase:â€‰ p<i>K</i>_a of the C-6 Proton of Enzyme-Bound UMP. Journal of the American Chemical Society, 2008, 130, 1574-1575.	13.7	79
93	Altered Transition State for the Reaction of an RNA Model Catalyzed by a Dinuclear Zinc(II) Catalyst. Journal of the American Chemical Society, 2008, 130, 17858-17866.	13.7	59
94	A Substrate in Pieces: Allosteric Activation of Glycerol 3-Phosphate Dehydrogenase (NAD⁺) by Phosphite Dianion. Biochemistry, 2008, 47, 4575-4582.	2.5	65
95	Glycine Enolates:Â The Effect of Formation of Iminium Ions to Simple Ketones on Î±-Amino Carbon Acidity and a Comparison with Pyridoxal Iminium Ions. Journal of the American Chemical Society, 2008, 130, 2041-2050.	13.7	46
96	Dissecting the Total Transition State Stabilization Provided by Amino Acid Side Chains at Orotidine 5â€²-Monophosphate Decarboxylase: A Two-Part Substrate Approach. Biochemistry, 2008, 47, 7785-7787.	2.5	39
97	Restoring a Metabolic Pathway. ACS Chemical Biology, 2008, 3, 605-607.	3.4	8
98	Formation and Stability of Mononuclear and Dinuclear Eu(III) Complexes and Their Catalytic Reactivity Toward Cleavage of an RNA Analog. Inorganic Chemistry, 2007, 46, 7169-7177.	4.0	44
99	Rational Design of Transition-State Analogues as Potent Enzyme Inhibitors with Therapeutic Applications. ACS Chemical Biology, 2007, 2, 711-714.	3.4	10
100	A minimalist approach to understanding the efficiency of mononuclear Zn(ii) complexes as catalysts of cleavage of an RNA analog. Dalton Transactions, 2007, , 3804.	3.3	35
101	Direct excitation luminescence spectroscopy of Eu(iii) complexes of 1,4,7-tris(carbamoylmethyl)-1,4,7,10- tetraazacyclododecane derivatives and kinetic studies of their catalytic cleavage of an RNA analog. Dalton Transactions, 2007, , 5171.	3.3	27
102	Covalent Catalysis by Pyridoxal:â€‰ Evaluation of the Effect of the Cofactor on the Carbon Acidity of Glycine. Journal of the American Chemical Society, 2007, 129, 3013-3021.	13.7	51
103	Enhancement of a Lewis Acidâ^'Base Interaction via Solvation:Â Ammonia Molecules and the Benzene Radical Cation. Journal of Physical Chemistry A, 2007, 111, 6068-6076.	2.5	11
104	Product Deuterium Isotope Effect for Orotidine 5â€˜-Monophosphate Decarboxylase:Â Evidence for the Existence of a Short-Lived Carbanion Intermediate. Journal of the American Chemical Society, 2007, 129, 12946-12947.	13.7	44
105	Enzymatic Catalysis of Proton Transfer at Carbon:â€‰ Activation of Triosephosphate Isomerase by Phosphite Dianion. Biochemistry, 2007, 46, 5841-5854.	2.5	96
106	A Marcus Treatment of Rate Constants for Protonation of Ring-Substituted Î±-Methoxystyrenes:Â Intrinsic Reaction Barriers and the Shape of the Reaction Coordinate. Journal of the American Chemical Society, 2007, 129, 6952-6961.	13.7	37
107	A Simple Method To Determine Kinetic Deuterium Isotope Effects Provides Evidence that Proton Transfer to Carbon Proceeds over and Not through the Reaction Barrier. Journal of the American Chemical Society, 2007, 129, 10330-10331.	13.7	17
108	A transition state analog for phosphate diester cleavage catalyzed by a small enzyme-like metal ion complex. Bioorganic Chemistry, 2007, 35, 366-374.	4.1	25

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109	The ACS division of Biological Chemistry. IUBMB Life, 2007, 59, 224-225.	3.4	0
110	When Does an Intermediate Become a Transition State? Degenerate Isomerization without Competing Racemization during Solvolysis of (S)-1-(3-Nitrophenyl)ethyl Tosylate. Journal of the American Chemical Society, 2006, 128, 17139-17145.	13.7	14
111	Claisen-Type Addition of Glycine to a Pyridoxal Iminium Ion in Water. Journal of Organic Chemistry, 2006, 71, 7094-7096.	3.2	10
112	Substrate Specificity of an Active Dinuclear Zn(II) Catalyst for Cleavage of RNA Analogues and a Dinucleoside. Journal of the American Chemical Society, 2006, 128, 1615-1621.	13.7	76
113	Reactions of Ion-Pair Intermediates of Solvolysis. ChemInform, 2005, 36, no.	0.0	0
114	Reactions of ion-pair intermediates of solvolysis. Chemical Record, 2005, 5, 94-106.	5.8	15
115	Crossing the Borderline between SN1 and SN2 Nucleophilic Substitution at Aliphatic Carbon. , 2005, , 41-68.		3
116	Ketonization of the remarkably strongly acidic elongated enol generated by flash photolytic decarboxylation of p-benzoylphenylacetic acid in aqueous solution. Chemical Communications, 2005, , 4231.	4.1	5
117	Activation of Orotidine 5â€˜-Monophosphate Decarboxylase by Phosphite Dianion:Â The Whole Substrate is the Sum of Two Parts. Journal of the American Chemical Society, 2005, 127, 15708-15709.	13.7	92
118	Formation and stability of organic zwitterions Â— The carbon acid pKas of the trimethylsulfonium and tetramethylphosphonium cations in water. Canadian Journal of Chemistry, 2005, 83, 1536-1542.	1.1	9
119	Carbon acidity of the Î±-pyridinium carbon of a pyridoxamine analog. Organic and Biomolecular Chemistry, 2005, 3, 2145.	2.8	16
120	Hydron Transfer Catalyzed by Triosephosphate Isomerase. Products of Isomerization of Dihydroxyacetone Phosphate in D2Oâ€. Biochemistry, 2005, 44, 2622-2631.	2.5	44
121	Ground-State, Transition-State, and Metal-Cation Effects of the 2-Hydroxyl Group on Î²-d-Galactopyranosyl Transfer Catalyzed by Î²-Galactosidase (Escherichia coli, lac Z). Biochemistry, 2005, 44, 11872-11881.	2.5	8
122	Solvent Deuterium Isotope Effects on Phosphodiester Cleavage Catalyzed by an Extraordinarily Active Zn(II) Complex. Journal of the American Chemical Society, 2005, 127, 1064-1065.	13.7	80
123	Hydron Transfer Catalyzed by Triosephosphate Isomerase. Products of Isomerization of (R)-Glyceraldehyde 3-Phosphate in D2Oâ€. Biochemistry, 2005, 44, 2610-2621.	2.5	55
124	A Comparison of the Electrophilic Reactivities of Zn2+and Acetic Acid as Catalysts of Enolization:Â Imperatives for Enzymatic Catalysis of Proton Transfer at Carbon. Journal of the American Chemical Society, 2004, 126, 5164-5173.	13.7	15
125	Editorial: Biological applications of physical organic chemistry. Journal of Physical Organic Chemistry, 2004, 17, 459-460.	1.9	0
126	On the importance of being zwitterionic: enzymatic catalysis of decarboxylation and deprotonation of cationic carbon. Bioorganic Chemistry, 2004, 32, 354-366.	4.1	77

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127	Dynamics for the reactions of ion pair intermediates of solvolysis. Advances in Physical Organic Chemistry, 2004, 39, 1-26.	0.5	24
128	Scrambling of Oxygen-18 during the â€œBorderlineâ€• Solvolysis of 1-(3-Nitrophenyl)ethyl Tosylate. Organic Letters, 2004, 6, 3633-3636.	4.6	12
129	Claisen-Type Addition of Glycine to Pyridoxal in Water. Journal of the American Chemical Society, 2004, 126, 10538-10539.	13.7	19
130	Formation and Stability of N-Heterocyclic Carbenes in Water:Â The Carbon Acid pKaof Imidazolium Cations in Aqueous Solution. Journal of the American Chemical Society, 2004, 126, 4366-4374.	13.7	476
131	Structureâ˘'Activity Studies on the Cleavage of an RNA Analogue by a Potent Dinuclear Metal Ion Catalyst:Â Effect of Changing the Metal Ion. Inorganic Chemistry, 2004, 43, 1743-1750.	4.0	68
132	Kinetic Studies of RNA Cleavage by Lanthanide(III) Macrocyclic Complexes. Bulletin of the Korean Chemical Society, 2004, 25, 403-406.	1.9	3
133	Mechanisms Complex biological processes and their central chemical events. Current Opinion in Chemical Biology, 2003, 7, 525-527.	6.1	1
134	Dynamics of reaction of ion pairs in aqueous solution: racemization of the chiral ion pair intermediate of solvolysis of (S)-1-(4-methylphenyl)ethylpentafluorobenzoate. Journal of Physical Organic Chemistry, 2003, 16, 484-490.	1.9	13
135	The Mandelamide Ketoâ˘'Enol System in Aqueous Solution. Generation of the Enol by Hydration of Phenylcarbamoylcarbene. Journal of the American Chemical Society, 2003, 125, 187-194.	13.7	14
136	Cooperativity between Metal Ions in the Cleavage of Phosphate Diesters and RNA by Dinuclear Zn(II) Catalysts. Inorganic Chemistry, 2003, 42, 7737-7746.	4.0	143
137	Kinetic and Thermodynamic Barriers to Carbon and Oxygen Alkylation of Phenol and Phenoxide Ion by the 1-(4-Methoxyphenyl)ethyl Carbocation. Journal of the American Chemical Society, 2003, 125, 15455-15465.	13.7	19
138	Substituent Effects on Carbocation Stability:Â The pKRforp-Quinone Methide. Journal of the American Chemical Society, 2003, 125, 8814-8819.	13.7	49
139	Physical and Kinetic Analysis of the Cooperative Role of Metal Ions in Catalysis of Phosphodiester Cleavage by a Dinuclear Zn(II) Complex. Journal of the American Chemical Society, 2003, 125, 1988-1993.	13.7	224
140	Formation and Stability of the Enolates of N-Protonated Proline Methyl Ester and Proline Zwitterion in Aqueous Solution:â€‰ A Nonenzymatic Model for the First Step in the Racemization of Proline Catalyzed by Proline Racemase. Biochemistry, 2003, 42, 8354-8361.	2.5	37
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142	Hydrogen Bonding and Catalysis of Solvolysis of 4-Methoxybenzyl Fluoride. Journal of the American Chemical Society, 2002, 124, 9798-9805.	13.7	23
143	Formation and Stability of Peptide Enolates in Aqueous Solution. Journal of the American Chemical Society, 2002, 124, 8251-8259.	13.7	53
144	1â€ƒâ€ƒIntroduction. Annual Reports on the Progress of Chemistry Section B, 2002, 98, 1-2.	0.9	0

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