Sam Hay

List of Publications by Year in Descending Order

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

129
papers3,161
citations30
h-index50
g-index136
ext. papers3,590
ext. citations9
avg, IF5.31
L-index

#	Paper	IF	Citations
129	How Photoactivation Triggers Protochlorophyllide Reduction: Computational Evidence of a Stepwise Hydride Transfer during Chlorophyll Biosynthesis <i>ACS Catalysis</i> , 2022 , 12, 4141-4148	13.1	О
128	Photocatalysis as the Smaster switchSof photomorphogenesis in early plant development. <i>Nature Plants</i> , 2021 , 7, 268-276	11.5	6
127	Predicting new protein conformations from molecular dynamics simulation conformational landscapes and machine learning. <i>Proteins: Structure, Function and Bioinformatics</i> , 2021 , 89, 915	4.2	7
126	A Noncanonical Tryptophan Analogue Reveals an Active Site Hydrogen Bond Controlling Ferryl Reactivity in a Heme Peroxidase. <i>Jacs Au</i> , 2021 , 1, 913-918		1
125	Dual role of the active site 1 sidSregions of protochlorophyllide oxidoreductase in photocatalysis and plant development. <i>FEBS Journal</i> , 2021 , 288, 175-189	5.7	4
124	Interplay between chromophore binding and domain assembly by the B-dependent photoreceptor protein, CarH. <i>Chemical Science</i> , 2021 , 12, 8333-8341	9.4	5
123	Structure and Mechanism of PA0254/HudA, a prFMN-Dependent Pyrrole-2-carboxylic Acid Decarboxylase Linked to Virulence. <i>ACS Catalysis</i> , 2021 , 11, 2865-2878	13.1	8
122	UbiD domain dynamics underpins aromatic decarboxylation. <i>Nature Communications</i> , 2021 , 12, 5065	17.4	3
121	Directed evolution of prenylated FMN-dependent Fdc supports efficient in vivo isobutene production. <i>Nature Communications</i> , 2021 , 12, 5300	17.4	2
120	Blood, sweat, and tears: extraterrestrial regolith biocomposites with binders. <i>Materials Today Bio</i> , 2021 , 12, 100136	9.9	2
119	Quantum Biology: An Update and Perspective. <i>Quantum Reports</i> , 2021 , 3, 80-126	2.1	26
118	Engineering an efficient and enantioselective enzyme for the Morita-Baylis-Hillman reaction <i>Nature Chemistry</i> , 2021 ,	17.6	7
117	Covalent Attachment of Active Enzymes to Upconversion Phosphors Allows Ratiometric Detection of Substrates. <i>Chemistry - A European Journal</i> , 2020 , 26, 14817-14822	4.8	2
116	Ultrafast Vibrational Energy Transfer between Protein and Cofactor in a Flavoenzyme. <i>Journal of Physical Chemistry B</i> , 2020 , 124, 5163-5168	3.4	5
115	Rewiring the "Push-Pull" Catalytic Machinery of a Heme Enzyme Using an Expanded Genetic Code. <i>ACS Catalysis</i> , 2020 , 10, 2735-2746	13.1	14
114	Evaluating spectral overlap with the degree of quenching in UCP luminescence energy transfer systems. <i>Methods and Applications in Fluorescence</i> , 2020 ,	3.1	1
113	Taming the Reactivity of Monoterpene Synthases To Guide Regioselective Product Hydroxylation. <i>ChemBioChem</i> , 2020 , 21, 985-990	3.8	8

(2019-2020)

112	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
111	Non-covalent protein-based adhesives for transparent substrates-bovine serum albumin vs. recombinant spider silk. <i>Materials Today Bio</i> , 2020 , 7, 100068	9.9	11
110	How Do Vanadium Chloroperoxidases Generate Hypochlorite from Hydrogen Peroxide and Chloride? A Computational Study. <i>ACS Catalysis</i> , 2020 , 10, 14067-14079	13.1	9
109	Enzymatic C-H activation of aromatic compounds through CO fixation. <i>Nature Chemical Biology</i> , 2020 , 16, 1255-1260	11.7	15
108	Assessing the Covalent Attachment and Energy Transfer Capabilities of Upconverting Phosphors With Cofactor Containing Bioactive Enzymes. <i>Frontiers in Chemistry</i> , 2020 , 8, 613334	5	
107	Convergence of theory and experiment on the role of preorganization, quantum tunneling and enzyme motions into flavoenzyme-catalyzed hydride transfer. <i>ACS Catalysis</i> , 2019 , 7, 3190-3198	13.1	25
106	MhuD from: Probing a Dual Role in Heme Storage and Degradation. <i>ACS Infectious Diseases</i> , 2019 , 5, 1855-1866	5.5	5
105	Enzymatic control of cycloadduct conformation ensures reversible 1,3-dipolar cycloaddition in a prFMN-dependent decarboxylase. <i>Nature Chemistry</i> , 2019 , 11, 1049-1057	17.6	20
104	Graphene-aramid nanocomposite fibres via superacid co-processing. <i>Chemical Communications</i> , 2019 , 55, 11703-11706	5.8	4
103	Unexpected Roles of a Tether Harboring a Tyrosine Gatekeeper Residue in Modular Nitrite Reductase Catalysis. <i>ACS Catalysis</i> , 2019 , 9, 6087-6099	13.1	11
102	Evaluating spectral overlap with the degree of quenching in UCP luminescence energy transfer systems. <i>Methods and Applications in Fluorescence</i> , 2019 , 7, 034003	3.1	1
101	Photochemical Spin Dynamics of the Vitamin B Derivative, Methylcobalamin. <i>Journal of Physical Chemistry B</i> , 2019 , 123, 4663-4672	3.4	6
100	Selectivity through discriminatory induced fit enables switching of NAD(P)H coenzyme specificity in Old Yellow Enzyme ene-reductases. <i>FEBS Journal</i> , 2019 , 286, 3117-3128	5.7	4
99	Synthetic biology for fibres, adhesives and active camouflage materials in protection and aerospace. <i>MRS Communications</i> , 2019 , 9, 486-504	2.7	13
98	Equatorial Active Site Compaction and Electrostatic Reorganization in Catecholmethyltransferase. <i>ACS Catalysis</i> , 2019 , 9, 4394-4401	13.1	13
97	Isotopically labeled flavoenzymes and their uses in probing reaction mechanisms. <i>Methods in Enzymology</i> , 2019 , 620, 145-166	1.7	2
96	Zero-point energy and tunnelling: general discussion. Faraday Discussions, 2019, 221, 478-500	3.6	4
95	Structural basis for enzymatic photocatalysis in chlorophyll biosynthesis. <i>Nature</i> , 2019 , 574, 722-725	50.4	38

94	What are the signatures of tunnelling in enzyme-catalysed reactions?. <i>Faraday Discussions</i> , 2019 , 221, 367-378	3.6	5
93	Pressurized CO as a carboxylating agent for the biocatalytic -carboxylation of resorcinol. <i>Green Chemistry</i> , 2018 , 20, 1754-1759	10	10
92	Trapping methods for probing functional intermediates in nitric oxide synthases and related enzymes. <i>Frontiers in Bioscience - Landmark</i> , 2018 , 23, 1874-1888	2.8	2
91	H, N and C backbone resonance assignments of pentaerythritol tetranitrate reductase from Enterobacter cloacae PB2. <i>Biomolecular NMR Assignments</i> , 2018 , 12, 79-83	0.7	4
90	Nonequivalence of Second Sphere "Noncatalytic" Residues in Pentaerythritol Tetranitrate Reductase in Relation to Local Dynamics Linked to H-Transfer in Reactions with NADH and NADPH Coenzymes. <i>ACS Catalysis</i> , 2018 , 8, 11589-11599	13.1	10
89	A common mechanism for coenzyme cobalamin-dependent reductive dehalogenases. <i>Physical Chemistry Chemical Physics</i> , 2017 , 19, 6090-6094	3.6	12
88	Liver microsomal lipid enhances the activity and redox coupling of colocalized cytochrome P450 reductase-cytochrome P450 3A4 in nanodiscs. <i>FEBS Journal</i> , 2017 , 284, 2302-2319	5.7	12
87	H, N, C backbone resonance assignments of human soluble catechol O-methyltransferase in complex with S-adenosyl-L-methionine and 3,5-dinitrocatechol. <i>Biomolecular NMR Assignments</i> , 2017 , 11, 57-61	0.7	1
86	Structural Basis of Catalysis in the Bacterial Monoterpene Synthases Linalool Synthase and 1,8-Cineole Synthase. <i>ACS Catalysis</i> , 2017 , 7, 6268-6282	13.1	31
85	Extracting Kinetic Isotope Effects From a Global Analysis of Reaction Progress Curves. <i>Methods in Enzymology</i> , 2017 , 596, 85-111	1.7	1
84	Expanding the Scope of Biomolecule Monitoring with Ratiometric Signaling from Rare-Earth Upconverting Phosphors. <i>European Journal of Inorganic Chemistry</i> , 2017 , 2017, 5176-5185	2.3	4
83	Decoupled Associative and Dissociative Processes in Strong yet Highly Dynamic Host-Guest Complexes. <i>Journal of the American Chemical Society</i> , 2017 , 139, 12985-12993	16.4	43
82	A perspective on conformational control of electron transfer in nitric oxide synthases. <i>Nitric Oxide - Biology and Chemistry</i> , 2017 , 63, 61-67	5	16
81	Donor-Acceptor Distance Sampling Enhances the Performance of "Better than Nature" Nicotinamide Coenzyme Biomimetics. <i>Journal of the American Chemical Society</i> , 2016 , 138, 11089-92	16.4	30
80	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
79	An oxidative N-demethylase reveals PAS transition from ubiquitous sensor to enzyme. <i>Nature</i> , 2016 , 539, 593-597	50.4	15
78	Carboxylesterase converts Amplex red to resorufin: Implications for mitochondrial H2O2 release assays. <i>Free Radical Biology and Medicine</i> , 2016 , 90, 173-83	7.8	62
77	Dual transcriptional-translational cascade permits cellular level tuneable expression control. Nucleic Acids Research, 2016, 44, e21	20.1	29

(2014-2016)

76	Correlating Calmodulin Landscapes with Chemical Catalysis in Neuronal Nitric Oxide Synthase using Time-Resolved FRET and a 5-Deazaflavin Thermodynamic Trap. <i>ACS Catalysis</i> , 2016 , 6, 5170-5180	13.1	13
75	Time Course Analysis of Enzyme-Catalyzed DNA Polymerization. <i>Biochemistry</i> , 2016 , 55, 5622-5634	3.2	7
74	Untangling Heavy Protein and Cofactor Isotope Effects on Enzyme-Catalyzed Hydride Transfer. Journal of the American Chemical Society, 2016 , 138, 13693-13699	16.4	24
73	A Plug and PlaySPlatform for the Production of Diverse Monoterpene Hydrocarbon Scaffolds in. <i>ChemistrySelect</i> , 2016 , 1, 1893-1896	1.8	32
72	UbiX is a flavin prenyltransferase required for bacterial ubiquinone biosynthesis. <i>Nature</i> , 2015 , 522, 502	2 -5 0.4	136
71	New cofactor supports Hunsaturated acid decarboxylation via 1,3-dipolar cycloaddition. <i>Nature</i> , 2015 , 522, 497-501	50.4	156
70	Nuclear quantum tunnelling in enzymatic reactionsan enzymologists perspective. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 30775-82	3.6	14
69	Epoxyqueuosine Reductase Structure Suggests a Mechanism for Cobalamin-dependent tRNA Modification. <i>Journal of Biological Chemistry</i> , 2015 , 290, 27572-81	5.4	28
68	Structure and Mechanism of a Viral Collagen Prolyl Hydroxylase. <i>Biochemistry</i> , 2015 , 54, 6093-105	3.2	13
67	Reductive dehalogenase structure suggests a mechanism for B12-dependent dehalogenation. <i>Nature</i> , 2015 , 517, 513-516	50.4	200
66		50.4	200
	Nature, 2015, 517, 513-516 Probing reversible chemistry in coenzyme B12 -dependent ethanolamine ammonia lyase with		
66	Nature, 2015, 517, 513-516 Probing reversible chemistry in coenzyme B12 -dependent ethanolamine ammonia lyase with kinetic isotope effects. Chemistry - A European Journal, 2015, 21, 8826-31 Towards the free energy landscape for catalysis in mammalian nitric oxide synthases. FEBS Journal,	4.8	5
66 65	Probing reversible chemistry in coenzyme B12 -dependent ethanolamine ammonia lyase with kinetic isotope effects. <i>Chemistry - A European Journal</i> , 2015 , 21, 8826-31 Towards the free energy landscape for catalysis in mammalian nitric oxide synthases. <i>FEBS Journal</i> , 2015 , 282, 3016-29 Real-time analysis of conformational control in electron transfer reactions of human cytochrome	4.8	5
66 65 64	Probing reversible chemistry in coenzyme B12 -dependent ethanolamine ammonia lyase with kinetic isotope effects. <i>Chemistry - A European Journal</i> , 2015 , 21, 8826-31 Towards the free energy landscape for catalysis in mammalian nitric oxide synthases. <i>FEBS Journal</i> , 2015 , 282, 3016-29 Real-time analysis of conformational control in electron transfer reactions of human cytochrome P450 reductase with cytochrome c. <i>FEBS Journal</i> , 2015 , 282, 4357-75 Does the pressure dependence of kinetic isotope effects report usefully on dynamics in enzyme	4.8 5.7 5.7	5 19 20
66 65 64 63	Probing reversible chemistry in coenzyme B12 -dependent ethanolamine ammonia lyase with kinetic isotope effects. <i>Chemistry - A European Journal</i> , 2015 , 21, 8826-31 Towards the free energy landscape for catalysis in mammalian nitric oxide synthases. <i>FEBS Journal</i> , 2015 , 282, 3016-29 Real-time analysis of conformational control in electron transfer reactions of human cytochrome P450 reductase with cytochrome c. <i>FEBS Journal</i> , 2015 , 282, 4357-75 Does the pressure dependence of kinetic isotope effects report usefully on dynamics in enzyme H-transfer reactions?. <i>FEBS Journal</i> , 2015 , 282, 3243-55 Ratiometric detection of enzyme turnover and flavin reduction using rare-earth upconverting	4.8 5.7 5.7 5.7	5 19 20 7
66 65 64 63	Probing reversible chemistry in coenzyme B12 -dependent ethanolamine ammonia lyase with kinetic isotope effects. <i>Chemistry - A European Journal</i> , 2015 , 21, 8826-31 Towards the free energy landscape for catalysis in mammalian nitric oxide synthases. <i>FEBS Journal</i> , 2015 , 282, 3016-29 Real-time analysis of conformational control in electron transfer reactions of human cytochrome P450 reductase with cytochrome c. <i>FEBS Journal</i> , 2015 , 282, 4357-75 Does the pressure dependence of kinetic isotope effects report usefully on dynamics in enzyme H-transfer reactions?. <i>FEBS Journal</i> , 2015 , 282, 3243-55 Ratiometric detection of enzyme turnover and flavin reduction using rare-earth upconverting phosphors. <i>Dalton Transactions</i> , 2014 , 43, 5265-8 Proton tunnelling and promoting vibrations during the oxidation of ascorbate by ferricyanide?.	4.8 5.7 5.7 5.7 4.3 3.6	5 19 20 7

58	Practical aspects on the use of kinetic isotope effects as probes of flavoprotein enzyme mechanisms. <i>Methods in Molecular Biology</i> , 2014 , 1146, 161-75	1.4	6
57	Fast protein motions are coupled to enzyme H-transfer reactions. <i>Journal of the American Chemical Society</i> , 2013 , 135, 2512-7	16.4	76
56	Dynamic, electrostatic model for the generation and control of high-energy radical intermediates by a coenzyme BHependent enzyme. <i>ChemBioChem</i> , 2013 , 14, 1529-33	3.8	9
55	Excited state dynamics can be used to probe donor-acceptor distances for H-tunneling reactions catalyzed by flavoproteins. <i>Biophysical Journal</i> , 2013 , 105, 2549-58	2.9	16
54	Enzymatic single-molecule kinetic isotope effects. <i>Journal of the American Chemical Society</i> , 2013 , 135, 3855-64	16.4	18
53	Modulation of ligand-heme reactivity by binding pocket residues demonstrated in cytochrome cS over the femtosecond-second temporal range. <i>FEBS Journal</i> , 2013 , 280, 6070-82	5.7	7
52	Relating localized protein motions to the reaction coordinate in coenzyme BEdependent enzymes. <i>FEBS Journal</i> , 2013 , 280, 2997-3008	5.7	24
51	Preparation and photophysical properties of a caged kynurenine. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2012 , 22, 2734-7	2.9	8
50	Kinetic and spectroscopic probes of motions and catalysis in the cytochrome P450 reductase family of enzymes. <i>FEBS Journal</i> , 2012 , 279, 1534-44	5.7	17
49	Ultrafast infrared spectral fingerprints of vitamin B12 and related cobalamins. <i>Journal of Physical Chemistry A</i> , 2012 , 116, 5586-94	2.8	31
48	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, 6527-3	3 ^{.2}	5
47	Protein Motions Are Coupled to the Reaction Chemistry in Coenzyme B12-Dependent Ethanolamine Ammonia Lyase. <i>Angewandte Chemie</i> , 2012 , 124, 9440-9444	3.6	3
46	Protein motions are coupled to the reaction chemistry in coenzyme B12-dependent ethanolamine ammonia lyase. <i>Angewandte Chemie - International Edition</i> , 2012 , 51, 9306-10	16.4	24
45	Pressure effects on enzyme-catalyzed quantum tunneling events arise from protein-specific structural and dynamic changes. <i>Journal of the American Chemical Society</i> , 2012 , 134, 9749-54	16.4	23
44	Good vibrations in enzyme-catalysed reactions. <i>Nature Chemistry</i> , 2012 , 4, 161-8	17.6	216
43	Gating mechanisms for biological electron transfer: integrating structure with biophysics reveals the nature of redox control in cytochrome P450 reductase and copper-dependent nitrite reductase. <i>FEBS Letters</i> , 2012 , 586, 578-84	3.8	29
42	Examining the importance of dynamics, barrier compression and hydrogen tunnelling in enzyme catalysed reactions. <i>Procedia Chemistry</i> , 2011 , 3, 306-315		1
41	Is There a Dynamic Protein Contribution to the Substrate Trigger in Coenzyme B12-Dependent Ethanolamine Ammonia Lyase?. <i>Angewandte Chemie</i> , 2011 , 123, 11035-11038	3.6	6

(2008-2011)

40	Is there a dynamic protein contribution to the substrate trigger in coenzyme B12-dependent ethanolamine ammonia lyase?. <i>Angewandte Chemie - International Edition</i> , 2011 , 50, 10843-6	16.4	28
39	Electrochemical and structural properties of a protein system designed to generate tyrosine Pourbaix diagrams. <i>Journal of the American Chemical Society</i> , 2011 , 133, 17786-95	16.4	31
38	Barrier compression and its contribution to both classical and quantum mechanical aspects of enzyme catalysis. <i>Biophysical Journal</i> , 2010 , 98, 121-8	2.9	42
37	Nature of the energy landscape for gated electron transfer in a dynamic redox protein. <i>Journal of the American Chemical Society</i> , 2010 , 132, 9738-45	16.4	57
36	Direct analysis of donor-acceptor distance and relationship to isotope effects and the force constant for barrier compression in enzymatic H-tunneling reactions. <i>Journal of the American Chemical Society</i> , 2010 , 132, 11329-35	16.4	70
35	Probing active site geometry using high pressure and secondary isotope effects in an enzyme-catalysed SdeepSH-tunnelling reaction. <i>Journal of Physical Organic Chemistry</i> , 2010 , 23, 696-701	2.1	15
34	Integrating Computational Methods with Experiment Uncovers the Role of Dynamics in Enzyme-Catalysed H-Tunnelling Reactions. <i>Challenges and Advances in Computational Chemistry and Physics</i> , 2010 , 501-519	0.7	
33	Demonstration of proton-coupled electron transfer in the copper-containing nitrite reductases. Journal of Biological Chemistry, 2009 , 284, 25973-83	5.4	46
32	Barrier Compression Enhances an Enzymatic Hydrogen-Transfer Reaction. <i>Angewandte Chemie</i> , 2009 , 121, 1480-1482	3.6	5
31	Parallel pathways and free-energy landscapes for enzymatic hydride transfer probed by hydrostatic pressure. <i>ChemBioChem</i> , 2009 , 10, 1379-84	3.8	22
30	Are the catalytic properties of enzymes from piezophilic organisms pressure adapted?. <i>ChemBioChem</i> , 2009 , 10, 2348-53	3.8	45
29	Barrier compression enhances an enzymatic hydrogen-transfer reaction. <i>Angewandte Chemie - International Edition</i> , 2009 , 48, 1452-4	16.4	51
28	Structural and mechanistic aspects of flavoproteins: probes of hydrogen tunnelling. <i>FEBS Journal</i> , 2009 , 276, 3930-41	5.7	27
27	Bipartite recognition and conformational sampling mechanisms for hydride transfer from nicotinamide coenzyme to FMN in pentaerythritol tetranitrate reductase. <i>FEBS Journal</i> , 2009 , 276, 4780	<u>.5</u> 97	22
26	Evidence to support the hypothesis that promoting vibrations enhance the rate of an enzyme catalyzed H-tunneling reaction. <i>Journal of the American Chemical Society</i> , 2009 , 131, 17072-3	16.4	68
25	Chapter 9:Probing Coupled Motions in Enzymatic Hydrogen Tunnelling Reactions: Beyond Temperature-Dependence Studies of Kinetic Isotope Effects. <i>RSC Biomolecular Sciences</i> , 2009 , 199-218		10
24	Deep tunneling dominates the biologically important hydride transfer reaction from NADH to FMN in morphinone reductase. <i>Journal of the American Chemical Society</i> , 2008 , 130, 7092-7	16.4	68
23	Incorporation of hydrostatic pressure into models of hydrogen tunneling highlights a role for pressure-modulated promoting vibrations. <i>Biochemistry</i> , 2008 , 47, 9880-7	3.2	35

22	Correction of pre-steady-state KIEs for isotopic impurities and the consequences of kinetic isotope fractionation. <i>Journal of Physical Chemistry A</i> , 2008 , 112, 13109-15	2.8	9
21	Making a single-chain four-helix bundle for redox chemistry studies. <i>Protein Engineering, Design and Selection</i> , 2008 , 21, 645-52	1.9	6
20	Atomistic insight into the origin of the temperature-dependence of kinetic isotope effects and H-tunnelling in enzyme systems is revealed through combined experimental studies and biomolecular simulation. <i>Biochemical Society Transactions</i> , 2008 , 36, 16-21	5.1	20
19	H-transfers in Photosystem II: what can we learn from recent lessons in the enzyme community?. <i>Photosynthesis Research</i> , 2008 , 98, 169-77	3.7	6
18	Driving force analysis of proton tunnelling across a reactivity series for an enzyme-substrate complex. <i>ChemBioChem</i> , 2008 , 9, 2839-45	3.8	18
17	Secondary kinetic isotope effects as probes of environmentally-coupled enzymatic hydrogen tunneling reactions. <i>ChemPhysChem</i> , 2008 , 9, 1536-9	3.2	16
16	Solvent as a probe of active site motion and chemistry during the hydrogen tunnelling reaction in morphinone reductase. <i>ChemPhysChem</i> , 2008 , 9, 1875-81	3.2	16
15	Are environmentally coupled enzymatic hydrogen tunneling reactions influenced by changes in solution viscosity?. <i>Angewandte Chemie - International Edition</i> , 2008 , 47, 537-40	16.4	31
14	Are Environmentally Coupled Enzymatic Hydrogen Tunneling Reactions Influenced by Changes in Solution Viscosity?. <i>Angewandte Chemie</i> , 2008 , 120, 547-550	3.6	10
13	Inter-flavin electron transfer in cytochrome P450 reductase - effects of solvent and pH identify hidden complexity in mechanism. <i>FEBS Journal</i> , 2008 , 275, 4540-57	5.7	36
12	Redox characteristics of a de novo quinone protein. <i>Journal of Physical Chemistry B</i> , 2007 , 111, 3488-95	3.4	19
11	Conformational dynamics of the cytochrome P450 BM3/N-palmitoylglycine complex: the proposed "proximal-distal" transition probed by temperature-jump spectroscopy. <i>Journal of Physical Chemistry B</i> , 2007 , 111, 7879-86	3.4	15
10	Conformational and thermodynamic control of electron transfer in neuronal nitric oxide synthase. <i>Biochemistry</i> , 2007 , 46, 5018-29	3.2	50
9	Mutagenesis of morphinone reductase induces multiple reactive configurations and identifies potential ambiguity in kinetic analysis of enzyme tunneling mechanisms. <i>Journal of the American Chemical Society</i> , 2007 , 129, 13949-56	16.4	45
8	Proton tunneling in aromatic amine dehydrogenase is driven by a short-range sub-picosecond promoting vibration: consistency of simulation and theory with experiment. <i>Journal of Physical Chemistry B</i> , 2007 , 111, 2631-8	3.4	61
7	Magnetic field effect studies indicate reduced geminate recombination of the radical pair in substrate-bound adenosylcobalamin-dependent ethanolamine ammonia lyase. <i>Journal of the American Chemical Society</i> , 2007 , 129, 15718-27	16.4	44
6	DNA binding suppresses human AIF-M2 activity and provides a connection between redox chemistry, reactive oxygen species, and apoptosis. <i>Journal of Biological Chemistry</i> , 2007 , 282, 30331-40	5.4	24
5	Promoting motions in enzyme catalysis probed by pressure studies of kinetic isotope effects. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 507-12	11.5	92

LIST OF PUBLICATIONS

4	Alpha-secondary isotope effects as probes of "tunneling-ready" configurations in enzymatic H-tunneling: insight from environmentally coupled tunneling models. <i>Journal of the American Chemical Society</i> , 2006 , 128, 14053-8	16.4	65
3	Moving a phenol hydroxyl group from the surface to the interior of a protein: effects on the phenol potential and pK(A). <i>Biochemistry</i> , 2005 , 44, 11891-902	3.2	25
2	Conversion of the Escherichia coli cytochrome b562 to an archetype cytochrome b: a mutant with bis-histidine ligation of heme iron. <i>Biochemistry</i> , 2005 , 44, 431-9	3.2	23
1	Protein engineering of cytochrome b562 for quinone binding and light-induced electron transfer. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 17675-80	11.5	44