Nigel S Scrutton

List of Publications by Year
in descending order

403 papers	16,349 citations	17429 63 h-index	33869 99 g-index
425 all docs	425 docs citations	425 times ranked	12882 citing authors

#	Article	IF	Citations
1	Redesign of the coenzyme specificity of a dehydrogenase by protein engineering. Nature, 1990, 343, 38-43.	13.7	764
2	Light-induced structural changes in a full-length cyanobacterial phytochrome probed by time-resolved X-ray scattering. Communications Biology, 2019, 2, 1.	2.0	611
3	Conversion of alcohols to enantiopure amines through dual-enzyme hydrogen-borrowing cascades. Science, 2015, 349, 1525-1529.	6.0	339
4	Atomic Description of an Enzyme Reaction Dominated by Proton Tunneling. Science, 2006, 312, 237-241.	6.0	304
5	Good vibrations in enzyme-catalysed reactions. Nature Chemistry, 2012, 4, 161-168.	6.6	246
6	Enzymatic H-Transfer Requires Vibration-Driven Extreme Tunneling. Biochemistry, 1999, 38, 3218-3222.	1.2	245
7	Cation-Ï€ bonding and amino-aromatic interactions in the biomolecular recognition of substituted ammonium ligands. Biochemical Journal, 1996, 319, 1-8.	1.7	231
8	New cofactor supports Î±,Î²-unsaturated acid decarboxylation via 1,3-dipolar cycloaddition. Nature, 2015, 522, 497-501.	13.7	197
9	Discovery, Characterization, Engineering, and Applications of Ene-Reductases for Industrial Biocatalysis. ACS Catalysis, 2018, 8, 3532-3549.	5.5	195
10	Covalent attachment of flavin adenine dinucleotide (FAD) and flavin mononucleotide (FMN) to enzymes: The current state of affairs. Protein Science, 1998, 7, 7-20.	3.1	183
11	Biotransformation of Explosives by the Old Yellow Enzyme Family of Flavoproteins. Applied and Environmental Microbiology, 2004, 70, 3566-3574.	1.4	172
12	UbiX is a flavin prenyltransferase required for bacterial ubiquinone biosynthesis. Nature, 2015, 522, 502-506.	13.7	168
13	Building a global alliance of biofoundries. Nature Communications, 2019, 10, 2040.	5.8	167
14	Better than Nature: Nicotinamide Biomimetics That Outperform Natural Coenzymes. Journal of the American Chemical Society, 2016, 138, 1033-1039.	6.6	164
15	An automated Design-Build-Test-Learn pipeline for enhanced microbial production of fine chemicals. Communications Biology, 2018, 1, 66.	2.0	159
16	Whatâ€™s in a covalent bond?. FEBS Journal, 2009, 276, 3405-3427.	2.2	151
17	A new conceptual framework for enzyme catalysis. FEBS Journal, 2002, 269, 3096-3102.	0.2	132
18	Structural basis of kynurenine 3-monooxygenase inhibition. Nature, 2013, 496, 382-385.	13.7	124

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19	New developments in â€˜eneâ€™-reductase catalysed biological hydrogenations. Current Opinion in Chemical Biology, 2014, 19, 107-115.	2.8	123
20	Structures of carboxylic acid reductase reveal domain dynamics underlying catalysis. Nature Chemical Biology, 2017, 13, 975-981.	3.9	118
21	Extensive conformational sampling in a ternary electron transfer complex. Nature Structural and Molecular Biology, 2003, 10, 219-225.	3.6	112
22	Biocatalysis with Thermostable Enzymes: Structure and Properties of a Thermophilic â€˜eneâ€™â€Reductase related to Old Yellow Enzyme. ChemBioChem, 2010, 11, 197-207.	1.3	110
23	Biodiversity of cytochrome P450 redox systems. Biochemical Society Transactions, 2005, 33, 796-801.	1.6	107
24	The dimeric form of flavocytochrome P450 BM3 is catalytically functional as a fatty acid hydroxylase. FEBS Letters, 2005, 579, 5582-5588.	1.3	107
25	Dynamics driving functionâ€ƒâ€"â€ƒnew insights from electron transferring flavoproteins and partner complexes. FEBS Journal, 2007, 274, 5481-5504.	2.2	105
26	Kinetic Studies of the Mechanism of Carbonâ€"Hydrogen Bond Breakage by the Heterotetrameric Sarcosine Oxidase ofArthrobactersp. 1-INâ€. Biochemistry, 2000, 39, 1189-1198.	1.2	98
27	Crystal structure of pentaerythritol tetranitrate reductase: â€œflippedâ€•binding geometries for steroid substrates in different redox states of the enzyme. Journal of Molecular Biology, 2001, 310, 433-447.	2.0	98
28	Importance of Barrier Shape in Enzyme-catalyzed Reactions. Journal of Biological Chemistry, 2001, 276, 6234-6242.	1.6	98
29	H-tunneling in the Multiple H-transfers of the Catalytic Cycle of Morphinone Reductase and in the Reductive Half-reaction of the Homologous Pentaerythritol Tetranitrate Reductase. Journal of Biological Chemistry, 2003, 278, 43973-43982.	1.6	98
30	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, 507-512.	3.3	98
31	The photochemical mechanism of a B12-dependent photoreceptor protein. Nature Communications, 2015, 6, 7907.	5.8	92
32	Flavocytochrome P450 BM3: an update on structure and mechanism of a biotechnologically important enzyme. Biochemical Society Transactions, 2005, 33, 747-753.	1.6	91
33	Towards synthesis of monoterpenes and derivatives using synthetic biology. Current Opinion in Chemical Biology, 2016, 34, 37-43.	2.8	89
34	Structural basis for enzymatic photocatalysis in chlorophyll biosynthesis. Nature, 2019, 574, 722-725.	13.7	88
35	Machine Learning of Designed Translational Control Allows Predictive Pathway Optimization in <i>Escherichia coli</i>. ACS Synthetic Biology, 2019, 8, 127-136.	1.9	88
36	Production of Propane and Other Shortâ€Chain Alkanes by Structureâ€Based Engineering of Ligand Specificity in Aldehydeâ€Deformylating Oxygenase. ChemBioChem, 2013, 14, 1204-1208.	1.3	85

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37	Structureâ€Based Insight into the Asymmetric Bioreduction of the Cï£¾C Double Bond of Î±,Î²â€Unsaturated Nitroalkenes by Pentaerythritol Tetranitrate Reductase. Advanced Synthesis and Catalysis, 2008, 350, 2789-2803.	2.1	84
38	Fast Protein Motions Are Coupled to Enzyme H-Transfer Reactions. Journal of the American Chemical Society, 2013, 135, 2512-2517.	6.6	83
39	Updated structure of Drosophila cryptochrome. Nature, 2013, 495, E3-E4.	13.7	83
40	Extensive Domain Motion and Electron Transfer in the Human Electron Transferring FlavoproteinÂ·Medium Chain Acyl-CoA Dehydrogenase Complex. Journal of Biological Chemistry, 2004, 279, 32904-32912.	1.6	82
41	The Human Apoptosis-inducing Protein AMID Is an Oxidoreductase with a Modified Flavin Cofactor and DNA Binding Activity. Journal of Biological Chemistry, 2005, 280, 30735-30740.	1.6	82
42	Chemical aspects of amine oxidation by flavoprotein enzymes. Natural Product Reports, 2004, 21, 722.	5.2	81
43	Relaxation Kinetics of Cytochrome P450 Reductase:â€‰ Internal Electron Transfer Is Limited by Conformational Change and Regulated by Coenzyme Binding. Biochemistry, 2002, 41, 4626-4637.	1.2	80
44	Nuclear Quantum Tunneling in the Light-activated Enzyme Protochlorophyllide Oxidoreductase. Journal of Biological Chemistry, 2009, 284, 3762-3767.	1.6	80
45	Kinetic and Structural Basis of Reactivity of Pentaerythritol Tetranitrate Reductase with NADPH, 2-Cyclohexenone, Nitroesters, and Nitroaromatic Explosives. Journal of Biological Chemistry, 2002, 277, 21906-21912.	1.6	79
46	Evidence To Support the Hypothesis That Promoting Vibrations Enhance the Rate of an Enzyme Catalyzed H-Tunneling Reaction. Journal of the American Chemical Society, 2009, 131, 17072-17073.	6.6	79
47	New insights into enzyme catalysis. Ground state tunnelling driven by protein dynamics. FEBS Journal, 1999, 264, 666-671.	0.2	78
48	Vertebrate Cryptochromes are Vestigial Flavoproteins. Scientific Reports, 2017, 7, 44906.	1.6	78
49	Low carbon strategies for sustainable bio-alkane gas production and renewable energy. Energy and Environmental Science, 2020, 13, 1818-1831.	15.6	77
50	Reductive and Oxidative Half-Reactions of Glutathione Reductase from Escherichia coli. Biochemistry, 1994, 33, 13888-13895.	1.2	76
51	Stopped-Flow Kinetic Studies of Flavin Reduction in Human Cytochrome P450 Reductase and Its Component Domains. Biochemistry, 2001, 40, 1964-1975.	1.2	76
52	Deep Tunneling Dominates the Biologically Important Hydride Transfer Reaction from NADH to FMN in Morphinone Reductase. Journal of the American Chemical Society, 2008, 130, 7092-7097.	6.6	75
53	Selenzyme: enzyme selection tool for pathway design. Bioinformatics, 2018, 34, 2153-2154.	1.8	75
54	Direct Analysis of Donorâ^'Acceptor Distance and Relationship to Isotope Effects and the Force Constant for Barrier Compression in Enzymatic H-Tunneling Reactions. Journal of the American Chemical Society, 2010, 132, 11329-11335.	6.6	74

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55	Quantum Biology: An Update and Perspective. Quantum Reports, 2021, 3, 80-126.	0.6	74
56	Channelling and formation of 'active' formaldehyde in dimethylglycine oxidase. EMBO Journal, 2003, 22, 4038-4048.	3.5	73
57	Photochemical Mechanism of Light-Driven Fatty Acid Photodecarboxylase. ACS Catalysis, 2020, 10, 6691-6696.	5.5	72
58	Deuterium Isotope Effects during Carbonâ€"Hydrogen Bond Cleavage by Trimethylamine Dehydrogenase. Journal of Biological Chemistry, 2001, 276, 24581-24587.	1.6	70
59	Catalytic Mechanism of Cofactor-Free Dioxygenases and How They Circumvent Spin-Forbidden Oxygenation of Their Substrates. Journal of the American Chemical Society, 2015, 137, 7474-7487.	6.6	70
60	Crystal Structure of a Soluble Form of Human CD73 with Ectoâ€5â€²â€Nucleotidase Activity. ChemBioChem, 2012, 13, 2384-2391.	1.3	68
61	Crystal Structure of Bacterial Morphinone Reductase and Properties of the C191A Mutant Enzyme. Journal of Biological Chemistry, 2002, 277, 30976-30983.	1.6	67
62	Î±-Secondary Isotope Effects as Probes of â€œTunneling-Readyâ€• Configurations in Enzymatic H-Tunneling:Â Insight from Environmentally Coupled Tunneling Models. Journal of the American Chemical Society, 2006, 128, 14053-14058.	6.6	66
63	Stopped-flow kinetic studies of electron transfer in the reductase domain of neuronal nitric oxide synthase: re-evaluation of the kinetic mechanism reveals new enzyme intermediates and variation with cytochrome P450 reductase. Biochemical Journal, 2002, 367, 19-30.	1.7	65
64	Electron transfer in human cytochrome P450 reductase. Biochemical Society Transactions, 2003, 31, 497-501.	1.6	65
65	A Siteâ€Saturated Mutagenesis Study of Pentaerythritol Tetranitrate Reductase Reveals that Residues 181 and 184 Influence Ligand Binding, Stereochemistry and Reactivity. ChemBioChem, 2011, 12, 738-749.	1.3	65
66	Proton-Coupled Electron Transfer and Adduct Configuration Are Important for C4a-Hydroperoxyflavin Formation and Stabilization in a Flavoenzyme. Journal of the American Chemical Society, 2014, 136, 241-253.	6.6	65
67	Proton-Coupled Electron Transfer in the Catalytic Cycle of <i>Alcaligenes xylosoxidans</i> Copper-Dependent Nitrite Reductase. Biochemistry, 2011, 50, 4121-4131.	1.2	64
68	Nature of the Energy Landscape for Gated Electron Transfer in a Dynamic Redox Protein. Journal of the American Chemical Society, 2010, 132, 9738-9745.	6.6	63
69	QM/MM Studies Show Substantial Tunneling for the Hydrogen-Transfer Reaction in Methylamine Dehydrogenase. Journal of the American Chemical Society, 2001, 123, 8604-8605.	6.6	62
70	Proton Tunneling in Aromatic Amine Dehydrogenase is Driven by a Short-Range Sub-Picosecond Promoting Vibration:Â Consistency of Simulation and Theory with Experiment. Journal of Physical Chemistry B, 2007, 111, 2631-2638.	1.2	62
71	Enzymatic Menthol Production: One-Pot Approach Using Engineered <i>Escherichia coli</i>. ACS Synthetic Biology, 2015, 4, 1112-1123.	1.9	61
72	Electrical circuitry in biology: emerging principles from protein structure. Current Opinion in Structural Biology, 2004, 14, 642-647.	2.6	59

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73	Hydrogen tunneling in quinoproteins. Archives of Biochemistry and Biophysics, 2004, 428, 41-51.	1.4	59
74	Hydrogen tunnelling in enzyme-catalysed H-transfer reactions: flavoprotein and quinoprotein systems. Philosophical Transactions of the Royal Society B: Biological Sciences, 2006, 361, 1375-1386.	1.8	59
75	Biocatalytic Asymmetric Alkene Reduction: Crystal Structure and Characterization of a Double Bond Reductase from <i>Nicotiana tabacum</i>. ACS Catalysis, 2013, 3, 370-379.	5.5	59
76	Activated Î±,Î²â€Unsaturated Aldehydes as Substrate of Dihydroxyacetone Phosphate (DHAP)â€Dependent Aldolases in the Context of a Multienzyme System. Advanced Synthesis and Catalysis, 2009, 351, 2967-2975.	2.1	58
77	Sweating the assets of flavin cofactors: new insight of chemical versatility from knowledge of structure and mechanism. Current Opinion in Structural Biology, 2016, 41, 19-26.	2.6	58
78	The pH dependence of kinetic isotope effects in monoamine oxidase A indicates stabilization of the neutral amine in the enzymeâ€“substrate complex. FEBS Journal, 2008, 275, 3850-3858.	2.2	57
79	Purification and characterization of glutathione reductase encoded by a cloned and over-expressed gene in Escherichia coli. Biochemical Journal, 1987, 245, 875-880.	1.7	56
80	Organization of the genes involved in dimethylglycine and sarcosine degradation inArthrobacterspp.. FEBS Journal, 2001, 268, 3390-3398.	0.2	56
81	Mutagenesis of Morphinone Reductase Induces Multiple Reactive Configurations and Identifies Potential Ambiguity in Kinetic Analysis of Enzyme Tunneling Mechanisms. Journal of the American Chemical Society, 2007, 129, 13949-13956.	6.6	55
82	A living foundry for Synthetic Biological Materials: A synthetic biology roadmap to new advanced materials. Synthetic and Systems Biotechnology, 2018, 3, 105-112.	1.8	55
83	Catalytic Mechanism of Aromatic Nitration by Cytochrome P450 TxtE: Involvement of a Ferric-Peroxynitrite Intermediate. Journal of the American Chemical Society, 2020, 142, 15764-15779.	6.6	55
84	Enzyme catalysis: over-the-barrier or through-the-barrier?. Trends in Biochemical Sciences, 2000, 25, 405-408.	3.7	54
85	Molecular Dissection of Human Methionine Synthase Reductase:â€‰ Determination of the Flavin Redox Potentials in Full-Length Enzyme and Isolated Flavin-Binding Domains. Biochemistry, 2003, 42, 3911-3920.	1.2	54
86	Cryptochrome-dependent magnetic field effect on seizure response in Drosophila larvae. Scientific Reports, 2014, 4, 5799.	1.6	54
87	Engineering the substrate specificity of glutathione reductase toward that of trypanothione reduction.. Proceedings of the National Academy of Sciences of the United States of America, 1991, 88, 8769-8773.	3.3	53
88	Tunneling and Classical Paths for Proton Transfer in an Enzyme Reaction Dominated by Tunneling:Â Oxidation of Tryptamine by Aromatic Amine Dehydrogenase. Journal of Physical Chemistry B, 2007, 111, 3032-3047.	1.2	53
89	Conformational and Thermodynamic Control of Electron Transfer in Neuronal Nitric Oxide Synthase. Biochemistry, 2007, 46, 5018-5029.	1.2	53
90	A microbial platform for renewable propane synthesis based on a fermentative butanol pathway. Biotechnology for Biofuels, 2015, 8, 61.	6.2	53

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91	Mass spectrometry locates local and allosteric conformational changes that occur on cofactor binding. Nature Communications, 2016, 7, 12163.	5.8	53
92	Barrier Compression Enhances an Enzymatic Hydrogenâ€Transfer Reaction. Angewandte Chemie - International Edition, 2009, 48, 1452-1454.	7.2	52
93	Interflavin electron transfer in human cytochrome P450 reductase is enhanced by coenzyme binding. Relaxation kinetic studies with coenzyme analogues. FEBS Journal, 2003, 270, 2612-2621.	0.2	51
94	Switching Pyridine Nucleotide Specificity in P450 BM3. Journal of Biological Chemistry, 2005, 280, 17634-17644.	1.6	51
95	Magnetic Field Effect Studies Indicate Reduced Geminate Recombination of the Radical Pair in Substrate-Bound Adenosylcobalamin-Dependent Ethanolamine Ammonia Lyase. Journal of the American Chemical Society, 2007, 129, 15718-15727.	6.6	51
96	Systematic methodology for the development of biocatalytic hydrogen-borrowing cascades: application to the synthesis of chiral Î±-substituted carboxylic acids from Î±-substituted Î±,Î²-unsaturated aldehydes. Organic and Biomolecular Chemistry, 2015, 13, 223-233.	1.5	51
97	Anatomy of an engineered NADâ€binding site. Protein Science, 1994, 3, 1504-1514.	3.1	50
98	Rapid P450 Heme Iron Reduction by Laser Photoexcitation of Mycobacterium tuberculosis CYP121 and CYP51B1. Journal of Biological Chemistry, 2007, 282, 24816-24824.	1.6	50
99	Demonstration of Proton-coupled Electron Transfer in the Copper-containing Nitrite Reductases. Journal of Biological Chemistry, 2009, 284, 25973-25983.	1.6	50
100	Cooperativity induced by a single mutation at the subunit interface of a dimeric enzyme: glutathione reductase. Science, 1992, 258, 1140-1143.	6.0	48
101	Are the Catalytic Properties of Enzymes from Piezophilic Organisms Pressure Adapted?. ChemBioChem, 2009, 10, 2348-2353.	1.3	48
102	Large-scale Domain Dynamics and Adenosylcobalamin Reorientation Orchestrate Radical Catalysis in Ornithine 4,5-Aminomutase. Journal of Biological Chemistry, 2010, 285, 13942-13950.	1.6	48
103	Coupled Motions Direct Electrons along Human Microsomal P450 Chains. PLoS Biology, 2011, 9, e1001222.	2.6	48
104	Magnetic Fields Modulate Blue-Light-Dependent Regulation of Neuronal Firing by Cryptochrome. Journal of Neuroscience, 2016, 36, 10742-10749.	1.7	48
105	Light-driven biocatalytic reduction of Î±,Î²-unsaturated compounds by ene reductases employing transition metal complexes as photosensitizers. Catalysis Science and Technology, 2016, 6, 169-177.	2.1	48
106	Radical-based photoinactivation of fatty acid photodecarboxylases. Analytical Biochemistry, 2020, 600, 113749.	1.1	48
107	Rapid prototyping of microbial production strains for the biomanufacture of potential materials monomers. Metabolic Engineering, 2020, 60, 168-182.	3.6	48
108	Trimethylamine dehydrogenase of bacterium W3A1Molecular cloning, sequence determination and over-expression of the gene. FEBS Letters, 1992, 308, 271-276.	1.3	47

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109	Focused Directed Evolution of Pentaerythritol Tetranitrate Reductase by Using Automated Anaerobic Kinetic Screening of Siteâ€Saturated Libraries. ChemBioChem, 2010, 11, 2433-2447.	1.3	47
110	Structural Basis of Catalysis in the Bacterial Monoterpene Synthases Linalool Synthase and 1,8-Cineole Synthase. ACS Catalysis, 2017, 7, 6268-6282.	5.5	47
111	Insights into the H₂O₂â€driven catalytic mechanism of fungal lytic polysaccharide monooxygenases. FEBS Journal, 2021, 288, 4115-4128.	2.2	47
112	Reductive and Oxidative Half-Reactions of Morphinone Reductase fromPseudomonasputidaM10:Â A Kinetic and Thermodynamic Analysisâ€. Biochemistry, 1998, 37, 7598-7607.	1.2	46
113	Continuous Wave Photolysis Magnetic Field Effect Investigations with Free and Protein-Bound Alkylcobalamins. Journal of the American Chemical Society, 2009, 131, 17246-17253.	6.6	46
114	A Stable Tyrosyl Radical in Monoamine Oxidase A. Journal of Biological Chemistry, 2005, 280, 4627-4631.	1.6	45
115	Excited state dynamics and catalytic mechanism of the light-driven enzyme protochlorophyllide oxidoreductase. Physical Chemistry Chemical Physics, 2012, 14, 8818.	1.3	45
116	Engineering Escherichia coli towards de novo production of gatekeeper (2S)-flavanones: naringenin, pinocembrin, eriodictyol and homoeriodictyol. Synthetic Biology, 2020, 5, ysaa012.	1.2	45
117	?/? Barrel evolution and the modular assembly of enzymes: Emerging trends in the flavin oxidase/dehydrogenase family. BioEssays, 1994, 16, 115-122.	1.2	44
118	Barrier Compression and Its Contribution to Both Classical and Quantum Mechanical Aspects of Enzyme Catalysis. Biophysical Journal, 2010, 98, 121-128.	0.2	43
119	Techno-economic assessment of microbial limonene production. Bioresource Technology, 2020, 300, 122666.	4.8	43
120	The causative role and therapeutic potential of the kynurenine pathway in neurodegenerative disease. Journal of Molecular Medicine, 2013, 91, 705-713.	1.7	42
121	A â€˜Plug and Playâ€™ Platform for the Production of Diverse Monoterpene Hydrocarbon Scaffolds in <i>Escherichia coli</i>.. ChemistrySelect, 2016, 1, 1893-1896.	0.7	42
122	Atomic Resolution Structures and Solution Behavior of Enzyme-Substrate Complexes of Enterobacter cloacae PB2 Pentaerythritol Tetranitrate Reductase. Journal of Biological Chemistry, 2004, 279, 30563-30572.	1.6	41
123	Catalytic mechanism of hydride transfer between NADP+/H and ferredoxin-NADP+ reductase from Anabaena PCC 7119. Archives of Biochemistry and Biophysics, 2007, 459, 79-90.	1.4	41
124	Protein Interactions in the Human Methionine Synthaseâˆ’Methionine Synthase Reductase Complex and Implications for the Mechanism of Enzyme Reactivationâ€. Biochemistry, 2007, 46, 6696-6709.	1.2	41
125	Analysis of Classical and Quantum Paths for Deprotonation of Methylamine by Methylamine Dehydrogenase. ChemPhysChem, 2007, 8, 1816-1835.	1.0	41
126	Large-Scale Domain Conformational Change Is Coupled to the Activation of the Coâ€“C Bond in the B₁₂-Dependent Enzyme Ornithine 4,5-Aminomutase: A Computational Study. Journal of the American Chemical Society, 2012, 134, 2367-2377.	6.6	41

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127	Determination of the redox potentials and electron transfer properties of the FAD- and FMN-binding domains of the human oxidoreductase NR1. FEBS Journal, 2003, 270, 1164-1175.	0.2	39
128	Mechanism of Coenzyme Binding to Human Methionine Synthase Reductase Revealed through the Crystal Structure of the FNR-like Module and Isothermal Titration Calorimetry,. Biochemistry, 2007, 46, 11833-11844.	1.2	39
129	Interâ€flavin electron transfer in cytochrome P450 reductase â€“ effects of solvent and pH identify hidden complexity in mechanism. FEBS Journal, 2008, 275, 4540-4557.	2.2	39
130	Ultrafast Infrared Spectral Fingerprints of Vitamin B₁₂ and Related Cobalamins. Journal of Physical Chemistry A, 2012, 116, 5586-5594.	1.1	38
131	Alternative Hydride Sources for Eneâ€Reductases: Current Trends. ChemCatChem, 2014, 6, 951-954.	1.8	38
132	Excitedâ€State Charge Separation in the Photochemical Mechanism of the Lightâ€Driven Enzyme Protochlorophyllide Oxidoreductase. Angewandte Chemie - International Edition, 2015, 54, 1512-1515.	7.2	38
133	Donorâ€“Acceptor Distance Sampling Enhances the Performance of â€œBetter than Natureâ€•Nicotinamide Coenzyme Biomimetics. Journal of the American Chemical Society, 2016, 138, 11089-11092.	6.6	38
134	Alternative metabolic pathways and strategies to high-titre terpenoid production in<i>Escherichia coli</i>. Natural Product Reports, 2022, 39, 90-118.	5.2	38
135	Flavocytochrome P450 BM3 and the origin of CYP102 fusion species. Biochemical Society Transactions, 2006, 34, 1173-1177.	1.6	37
136	Stepwise Hydride Transfer in a Biological System: Insights into the Reaction Mechanism of the Lightâ€Dependent Protochlorophyllide Oxidoreductase. Angewandte Chemie - International Edition, 2018, 57, 2682-2686.	7.2	37
137	SelProm: A Queryable and Predictive Expression Vector Selection Tool for <i>Escherichia coli</i>. ACS Synthetic Biology, 2019, 8, 1478-1483.	1.9	37
138	DNA Binding Suppresses Human AIF-M2 Activity and Provides a Connection between Redox Chemistry, Reactive Oxygen Species, and Apoptosis. Journal of Biological Chemistry, 2007, 282, 30331-30340.	1.6	36
139	Incorporation of Hydrostatic Pressure into Models of Hydrogen Tunneling Highlights a Role for Pressure-Modulated Promoting Vibrations. Biochemistry, 2008, 47, 9880-9887.	1.2	36
140	Impact of residues remote from the catalytic centre on enzyme catalysis of copper nitrite reductase. Nature Communications, 2014, 5, 4395.	5.8	36
141	A biocatalytic method for the chemoselective aerobic oxidation of aldehydes to carboxylic acids. Green Chemistry, 2018, 20, 3931-3943.	4.6	36
142	A brain-permeable inhibitor of the neurodegenerative disease target kynurenine 3-monooxygenase prevents accumulation of neurotoxic metabolites. Communications Biology, 2019, 2, 271.	2.0	36
143	The Primary Structure of Hyphomicrobium X Dimethylamine Dehydrogenase. Relationship to Trimethylamine Dehydrogenase and Implications for Substrate Recognition. FEBS Journal, 1995, 232, 264-271.	0.2	35
144	Involvement of a Flavin Iminoquinone Methide in the Formation of 6-Hydroxyflavin Mononucleotide in Trimethylamine Dehydrogenase:Â A Rationale for the Existence of 8Î±-Methyl and C6-Linked Covalent Flavoproteinsâ€. Biochemistry, 1997, 36, 7162-7168.	1.2	35

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145	Electron Transfer from Flavin to Iron in the Pseudomonas oleovorans Rubredoxin Reductaseâ^'Rubredoxin Electron Transfer Complex. Biochemistry, 1998, 37, 15513-15522.	1.2	35
146	Highly multiplexed, fast and accurate nanopore sequencing for verification of synthetic DNA constructs and sequence libraries. Synthetic Biology, 2019, 4, ysz025.	1.2	35
147	New enzymes for old: Redesigning the coenzyme and substrate specificities of glutathione reductase. BioEssays, 1991, 13, 515-525.	1.2	34
148	Are Environmentally Coupled Enzymatic Hydrogen Tunneling Reactions Influenced by Changes in Solution Viscosity?. Angewandte Chemie - International Edition, 2008, 47, 537-540.	7.2	34
149	Cryogenic and Laser Photoexcitation Studies Identify Multiple Roles for Active Site Residues in the Light-driven Enzyme Protochlorophyllide Oxidoreductase. Journal of Biological Chemistry, 2009, 284, 18160-18166.	1.6	34
150	Cobalamin uptake and reactivation occurs through specific protein interactions in the methionine synthaseâ€"methionine synthase reductase complex. FEBS Journal, 2009, 276, 1942-1951.	2.2	34
151	Carbon monoxide poisoning is prevented by the energy costs of conformational changes in gas-binding haemproteins. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 15780-15785.	3.3	34
152	Mechanism of Radical-based Catalysis in the Reaction Catalyzed by Adenosylcobalamin-dependent Ornithine 4,5-Aminomutase. Journal of Biological Chemistry, 2008, 283, 34615-34625.	1.6	33
153	Bio-derived production of cinnamyl alcohol <i>via</i> a three step biocatalytic cascade and metabolic engineering. Green Chemistry, 2018, 20, 658-663.	4.6	33
154	Biocatalytic Routes to Lactone Monomers for Polymer Production. Biochemistry, 2018, 57, 1997-2008.	1.2	33
155	Structural Differences between Wild-type NADP-dependent Glutathione Reductase from Escherichia coli and a Redesigned NAD-dependent Mutant. Journal of Molecular Biology, 1993, 231, 191-195.	2.0	32
156	Protein Dynamics Enhance Electronic Coupling in Electron Transfer Complexes. Journal of Biological Chemistry, 2001, 276, 34142-34147.	1.6	32
157	Cytochromes P450: novel drug targets in the war against multidrug-resistant Mycobacterium tuberculosis. Biochemical Society Transactions, 2003, 31, 625-630.	1.6	32
158	Stabilization of Non-productive Conformations Underpins Rapid Electron Transfer to Electron-transferring Flavoprotein. Journal of Biological Chemistry, 2005, 280, 30361-30366.	1.6	32
159	Conformational Events during Ternary Enzymeâ^'Substrate Complex Formation Are Rate Limiting in the Catalytic Cycle of the Light-Driven Enzyme Protochlorophyllide Oxidoreductase. Biochemistry, 2008, 47, 10991-10998.	1.2	32
160	Experiment and Simulation Reveal How Mutations in Functional Plasticity Regions Guide Plant Monoterpene Synthase Product Outcome. ACS Catalysis, 2018, 8, 3780-3791.	5.5	32
161	On the evolution of alternate core packing in eightfold Î²/Î±â€barrels. Protein Science, 1994, 3, 1889-1892.	3.1	31
162	Î±Arg-237 in Methylophilus methylotrophus (sp. W3A1) Electron-transferring Flavoprotein Affords â^¼200-Millivolt Stabilization of the FAD Anionic Semiquinone and a Kinetic Block on Full Reduction to the Dihydroquinone. Journal of Biological Chemistry, 2001, 276, 20190-20196.	1.6	31

#	Article	IF	Citations
163	Electron Transfer in Human Methionine Synthase Reductase Studied by Stopped-Flow Spectrophotometry. Biochemistry, 2004, 43, 490-500.	1.2	31
164	Magnetic Field Effects and Radical Pair Mechanisms in Enzymes:Â A Reappraisal of the Horseradish Peroxidase System. Journal of the American Chemical Society, 2006, 128, 8408-8409.	6.6	31
165	Gating mechanisms for biological electron transfer: Integrating structure with biophysics reveals the nature of redox control in cytochrome P450 reductase and copperâ€dependent nitrite reductase. FEBS Letters, 2012, 586, 578-584.	1.3	31
166	Origin of the Proton-transfer Step in the Cofactor-free (1H)-3-Hydroxy-4-oxoquinaldine 2,4-Dioxygenase. Journal of Biological Chemistry, 2014, 289, 8620-8632.	1.6	31
167	Convergence of Theory and Experiment on the Role of Preorganization, Quantum Tunneling, and Enzyme Motions into Flavoenzyme-Catalyzed Hydride Transfer. ACS Catalysis, 2017, 7, 3190-3198.	5.5	31
168	biochem4j: Integrated and extensible biochemical knowledge through graph databases. PLoS ONE, 2017, 12, e0179130.	1.1	31
169	The Reaction of Trimethylamine Dehydrogenase with Trimethylamine. Journal of Biological Chemistry, 1999, 274, 13147-13154.	1.6	30
170	Is There a Dynamic Protein Contribution to the Substrate Trigger in Coenzyme B₁₂â€Dependent Ethanolamine Ammonia Lyase?. Angewandte Chemie - International Edition, 2011, 50, 10843-10846.	7.2	30
171	Chemo-enzymatic routes towards the synthesis of bio-based monomers and polymers. Molecular Catalysis, 2019, 467, 95-110.	1.0	30
172	Exploring novel bacterial terpene synthases. PLoS ONE, 2020, 15, e0232220.	1.1	30
173	Engineering of an intersubunit disulphide bridge in glutathione reductase fromEscherichia coli. FEBS Letters, 1988, 241, 46-50.	1.3	29
174	Protein recognition of ammonium cations using sideâ€chain aromatics: A structural variation for secondary ammonium ligands. Protein Science, 1995, 4, 2625-2628.	3.1	29
175	Kinetics of CO binding to the haem domain of murine inducible nitric oxide synthase: differential effects of haem domain ligands. Biochemical Journal, 2001, 358, 201-208.	1.7	29
176	The enzyme aromatic amine dehydrogenase induces a substrate conformation crucial for promoting vibration that significantly reduces the effective potential energy barrier to proton transfer. Journal of the Royal Society Interface, 2008, 5, 225-232.	1.5	29
177	Structure-based Mechanism of CMP-2-keto-3-deoxymanno-octulonic Acid Synthetase. Journal of Biological Chemistry, 2009, 284, 35514-35523.	1.6	29
178	Relating localized protein motions to the reaction coordinate in coenzymeÂ<scp>B</scp>₁₂â€dependent enzymes. FEBS Journal, 2013, 280, 2997-3008.	2.2	29
179	Assembly of redox centers in the trimethylamine dehydrogenase of bacterium W3A1. Properties of the wild-type enzyme and a C30A mutant expressed from a cloned gene in Escherichia coli. Journal of Biological Chemistry, 1994, 269, 13942-50.	1.6	29
180	Proton transfer in the oxidative half-reaction of pentaerythritol tetranitrate reductase. Structure of the reduced enzyme-progesterone complex and the roles of residues Tyr186, His181 and His184. FEBS Journal, 2005, 272, 4660-4671.	2.2	28

#	Article	IF	Citations
181	Mutagenesis Alters the Catalytic Mechanism of the Light-driven Enzyme Protochlorophyllide Oxidoreductase. Journal of Biological Chemistry, 2010, 285, 2113-2119.	1.6	28
182	Protein Motions Are Coupled to the Reaction Chemistry in Coenzyme B₁₂â€Dependent Ethanolamine Ammonia Lyase. Angewandte Chemie - International Edition, 2012, 51, 9306-9310.	7.2	28
183	Isopentenol Utilization Pathway for the Production of Linalool in <i>Escherichia coli</i> Using an Improved Bacterial Linalool/Nerolidol Synthase. ChemBioChem, 2021, 22, 2325-2334.	1.3	28
184	Structural and mechanistic aspects of flavoproteins: probes of hydrogen tunnelling. FEBS Journal, 2009, 276, 3930-3941.	2.2	27
185	Pressure Effects on Enzyme-Catalyzed Quantum Tunneling Events Arise from Protein-Specific Structural and Dynamic Changes. Journal of the American Chemical Society, 2012, 134, 9749-9754.	6.6	27
186	Realâ€time analysis of conformational control in electron transfer reactions of human cytochrome P450 reductase with cytochrome <i>c</i>. FEBS Journal, 2015, 282, 4357-4375.	2.2	27
187	Untangling Heavy Protein and Cofactor Isotope Effects on Enzyme-Catalyzed Hydride Transfer. Journal of the American Chemical Society, 2016, 138, 13693-13699.	6.6	26
188	Optimizing the Michaelis Complex of Trimethylamine Dehydrogenase. Journal of Biological Chemistry, 2001, 276, 42887-42892.	1.6	25
189	Laser Excitation Studies of the Product Release Steps in the Catalytic Cycle of the Light-driven Enzyme, Protochlorophyllide Oxidoreductase. Journal of Biological Chemistry, 2007, 282, 32015-32020.	1.6	25
190	Solventâ€Slaved Protein Motions Accompany Proton but Not Hydride Tunneling in Lightâ€Activated Protochlorophyllide Oxidoreductase. Angewandte Chemie - International Edition, 2009, 48, 3850-3853.	7.2	25
191	Tyrosyl Radical Formation and Propagation in Flavin Dependent Monoamine Oxidases. ChemBioChem, 2010, 11, 1228-1231.	1.3	25
192	How Does Pressure Affect Barrier Compression and Isotope Effects in an Enzymatic Hydrogen Tunneling Reaction?. Angewandte Chemie - International Edition, 2011, 50, 2129-2132.	7.2	25
193	A Twin-track Approach Has Optimized Proton and Hydride Transfer by Dynamically Coupled Tunneling during the Evolution of Protochlorophyllide Oxidoreductase. Journal of Biological Chemistry, 2011, 286, 11849-11854.	1.6	25
194	Human Cryptochrome-1 Confers Light Independent Biological Activity in Transgenic Drosophila Correlated with Flavin Radical Stability. PLoS ONE, 2012, 7, e31867.	1.1	25
195	Energy Landscapes and Catalysis in Nitric-oxide Synthase. Journal of Biological Chemistry, 2014, 289, 11725-11738.	1.6	25
196	PartsGenie: an integrated tool for optimizing and sharing synthetic biology parts. Bioinformatics, 2018, 34, 2327-2329.	1.8	25
197	A Toolbox for Diverse Oxyfunctionalisation of Monoterpenes. Scientific Reports, 2018, 8, 14396.	1.6	25
198	A guide to timeâ€resolved structural analysis of lightâ€activated proteins. FEBS Journal, 2022, 289, 576-595.	2.2	25

#	Article	IF	Citations
199	Thermodynamic and kinetic analysis of the isolated FAD domain of rat neuronal nitric oxide synthase altered in the region of the FAD shielding residue Phe1395. FEBS Journal, 2004, 271, 2548-2560.	0.2	24
200	Role of Active Site Residues and Solvent in Proton Transfer and the Modulation of Flavin Reduction Potential in Bacterial Morphinone Reductase. Journal of Biological Chemistry, 2005, 280, 27103-27110.	1.6	24
201	Reduction of aliphatic nitroesters and <i>N</i>â€nitramines by <i>Enterobacterâ€ƒcloacae</i> PB2 pentaerythritol tetranitrate reductase. FEBS Journal, 2008, 275, 6192-6203.	2.2	24
202	Bipartite recognition and conformational sampling mechanisms for hydride transfer from nicotinamide coenzyme to FMN in pentaerythritol tetranitrate reductase. FEBS Journal, 2009, 276, 4780-4789.	2.2	24
203	Time-resolved studies of radical pairs. Biochemical Society Transactions, 2009, 37, 358-362.	1.6	24
204	Laserâ€flash photolysis indicates that internal electron transfer is triggered by proton uptake by <i>Alcaligenesâ€ƒxylosoxidans</i> copperâ€dependent nitrite reductase. FEBS Journal, 2012, 279, 2174-2181.	2.2	24
205	Non-covalent protein-based adhesives for transparent substratesâ€”bovine serum albumin vs. recombinant spider silk. Materials Today Bio, 2020, 7, 100068.	2.6	24
206	The evolving art of creating genetic diversity: From directed evolution to synthetic biology. Biotechnology Advances, 2021, 50, 107762.	6.0	24
207	The Flavinylation Reaction of Trimethylamine Dehydrogenase.. Journal of Biological Chemistry, 1995, 270, 13186-13191.	1.6	23
208	Reaction of Morphinone Reductase with 2-Cyclohexen-1-one and 1-Nitrocyclohexene. Journal of Biological Chemistry, 2005, 280, 10695-10709.	1.6	23
209	Towards the free energy landscape for catalysis in mammalian nitric oxide synthases. FEBS Journal, 2015, 282, 3016-3029.	2.2	23
210	Magnetic field effects as a result of the radical pair mechanism are unlikely in redox enzymes. Journal of the Royal Society Interface, 2015, 12, 20141155.	1.5	23
211	Multiple active site residues are important for photochemical efficiency in the light-activated enzyme protochlorophyllide oxidoreductase (POR). Journal of Photochemistry and Photobiology B: Biology, 2016, 161, 236-243.	1.7	23
212	In silico design and automated learning to boost next-generation smart biomanufacturing. Synthetic Biology, 2020, 5, ysaa020.	1.2	23
213	An Ultracentrifugal Approach to Quantitative Characterization of the Molecular Assembly of a Physiological Electron-Transfer Complex. The Interaction of Electron-Transferring Flavoprotein with Trimethylamine Dehydrogenase. FEBS Journal, 1997, 243, 393-399.	0.2	22
214	Role of histidine 42 in ascorbate peroxidase. FEBS Journal, 2002, 269, 3182-3192.	0.2	22
215	An Internal Reaction Chamber in Dimethylglycine Oxidase Provides Efficient Protection from Exposure to Toxic Formaldehyde. Journal of Biological Chemistry, 2009, 284, 17826-17834.	1.6	22
216	Parallel Pathways and Freeâ€Energy Landscapes for Enzymatic Hydride Transfer Probed by Hydrostatic Pressure. ChemBioChem, 2009, 10, 1379-1384.	1.3	22

#	Article	IF	Citations
217	Continuous two-phase flow miniaturised bioreactor for monitoring anaerobic biocatalysis by pentaerythritol tetranitrate reductase. Lab on A Chip, 2010, 10, 1929.	3.1	22
218	Ultrafast Red Light Activation of Synechocystis Phytochrome Cph1 Triggers Major Structural Change to Form the Pfr Signalling-Competent State. PLoS ONE, 2012, 7, e52418.	1.1	22
219	Enzymes make light work of hydrocarbon production. Science, 2017, 357, 872-873.	6.0	22
220	Production of the Fragrance Geraniol in Peroxisomes of a Product-Tolerant Bakerâ€™s Yeast. Frontiers in Bioengineering and Biotechnology, 2020, 8, 582052.	2.0	22
221	The effect of terminal globular domains on the response of recombinant mini-spidroins to fiber spinning triggers. Scientific Reports, 2020, 10, 10671.	1.6	22
222	Photocatalysis as the â€˜master switchâ€™ of photomorphogenesis in early plant development. Nature Plants, 2021, 7, 268-276.	4.7	22
223	The Role of Tyr-169 of Trimethylamine Dehydrogenase in Substrate Oxidation and Magnetic Interaction between FMN Cofactor and the 4Fe/4S Center. Journal of Biological Chemistry, 1999, 274, 13155-13161.	1.6	21
224	Differential Coupling through Val-344 and Tyr-442 of Trimethylamine Dehydrogenase in Electron Transfer Reactions with Ferricenium Ions and Electron Transferring Flavoproteinâ€. Biochemistry, 2000, 39, 9188-9200.	1.2	21
225	Electron Transfer and Conformational Change in Complexes of Trimethylamine Dehydrogenase and Electron Transferring Flavoprotein. Journal of Biological Chemistry, 2002, 277, 8457-8465.	1.6	21
226	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. Biochemical Society Transactions, 2008, 36, 16-21.	1.6	21
227	Active site modifications in pentaerythritol tetranitrate reductase can lead to improved product enantiopurity, decreased by-product formation and altered stereochemical outcome in reactions with Î±,Î²-unsaturated nitroolefins. Catalysis Science and Technology, 2011, 1, 948.	2.1	21
228	Enzymatic Single-Molecule Kinetic Isotope Effects. Journal of the American Chemical Society, 2013, 135, 3855-3864.	6.6	21
229	Pinpointing a Mechanistic Switch Between Ketoreduction and â€œEneâ€• Reduction in Shortâ€Chain Dehydrogenases/Reductases. Angewandte Chemie - International Edition, 2016, 55, 9596-9600.	7.2	21
230	An oxidative N-demethylase reveals PAS transition from ubiquitous sensor to enzyme. Nature, 2016, 539, 593-597.	13.7	21
231	An automated pipeline for the screening of diverse monoterpene synthase libraries. Scientific Reports, 2019, 9, 11936.	1.6	21
232	Synthetic biology for fibers, adhesives, and active camouflage materials in protection and aerospace. MRS Communications, 2019, 9, 486-504.	0.8	21
233	Equatorial Active Site Compaction and Electrostatic Reorganization in Catechol-O-methyltransferase. ACS Catalysis, 2019, 9, 4394-4401.	5.5	21
234	Driving Force Analysis of Proton Tunnelling Across a Reactivity Series for an Enzymeâ€Substrate Complex. ChemBioChem, 2008, 9, 2839-2845.	1.3	20

#	Article	IF	Citations
235	Electro-enzymatic viologen-mediated substrate reduction using pentaerythritol tetranitrate reductase and a parallel, segmented fluid flow system. Catalysis Science and Technology, 2013, 3, 1505.	2.1	20
236	Engineering the â€œMissing Linkâ€•in Biosynthetic (â˜')-Menthol Production: Bacterial Isopulegone Isomerase. ACS Catalysis, 2018, 8, 2012-2020.	5.5	20
237	Inflammation control and improvement of cognitive function in COVID-19 infections: is there a role for kynurenine 3-monooxygenase inhibition?. Drug Discovery Today, 2021, 26, 1473-1481.	3.2	20
238	Introduction. Quantum catalysis in enzymes: beyond the transition state theory paradigm. Philosophical Transactions of the Royal Society B: Biological Sciences, 2006, 361, 1293-1294.	1.8	19
239	Enzyme engineering toolbox â€" a â€˜catalystâ€™ for change. Catalysis Science and Technology, 2013, 3, 2182.	2.1	19
240	Structure and Mechanism of a Viral Collagen Prolyl Hydroxylase. Biochemistry, 2015, 54, 6093-6105.	1.2	19
241	Structural insights into the ene-reductase synthesis of profens. Organic and Biomolecular Chemistry, 2017, 15, 4440-4448.	1.5	19
242	A perspective on conformational control of electron transfer in nitric oxide synthases. Nitric Oxide - Biology and Chemistry, 2017, 63, 61-67.	1.2	19
243	The sacrificial inactivation of the blue-light photosensor cryptochrome from <i>Drosophila melanogaster</i>. Physical Chemistry Chemical Physics, 2018, 20, 28767-28776.	1.3	19
244	Renewable and tuneable bio-LPG blends derived from amino acids. Biotechnology for Biofuels, 2020, 13, 125.	6.2	19
245	Consolidated Bioprocessing: Synthetic Biology Routes to Fuels and Fine Chemicals. Microorganisms, 2021, 9, 1079.	1.6	19
246	Kinetic and spectroscopic probes of motions and catalysis in the cytochrome P450 reductase family of enzymes. FEBS Journal, 2012, 279, 1534-1544.	2.2	18
247	The Photoinitiated Reaction Pathway of Full-length Cyanobacteriochrome Tlr0924 Monitored Over 12 Orders of Magnitude. Journal of Biological Chemistry, 2014, 289, 17747-17757.	1.6	18
248	Nuclear quantum tunnelling in enzymatic reactions â€" an enzymologist's perspective. Physical Chemistry Chemical Physics, 2015, 17, 30775-30782.	1.3	18
249	Syntheses and electronic and optical properties of complexes of the bis(2,2â€²-bipyrazyl)ruthenium unit. Polyhedron, 2015, 96, 57-65.	1.0	18
250	Structure of the <i>CannabisÂsativa</i> olivetolâ€producing enzyme reveals cyclization plasticity in type III polyketide synthases. FEBS Journal, 2020, 287, 1511-1524.	2.2	18
251	Protein Conformational Change Is Essential for Reductive Activation of Lytic Polysaccharide Monooxygenase by Cellobiose Dehydrogenase. ACS Catalysis, 2020, 10, 4842-4853.	5.5	18
252	Formation of W3A1 Electron-transferring Flavoprotein (ETF) Hydroquinone in the Trimethylamine DehydrogenaseÂ·ETF Protein Complex. Journal of Biological Chemistry, 2000, 275, 12546-12552.	1.6	17

#	Article	IF	Citations
253	Using trimethylamine dehydrogenase in an enzyme linked amperometric electrode. Analyst, The, 2003, 128, 166-172.	1.7	17
254	Excited State Dynamics Can Be Used to Probe Donor-Acceptor Distances for H-Tunneling Reactions Catalyzed by Flavoproteins. Biophysical Journal, 2013, 105, 2549-2558.	0.2	17
255	Retooling microorganisms for the fermentative production of alcohols. Current Opinion in Biotechnology, 2018, 50, 1-10.	3.3	17
256	Unexpected Roles of a Tether Harboring a Tyrosine Gatekeeper Residue in Modular Nitrite Reductase Catalysis. ACS Catalysis, 2019, 9, 6087-6099.	5.5	17
257	Making molecules with photodecarboxylases: A great start or a false dawn?. Current Research in Chemical Biology, 2022, 2, 100017.	1.4	17
258	Reaction of the C30A Mutant of Trimethylamine Dehydrogenase with Diethylmethylamine. Journal of Biological Chemistry, 1996, 271, 13401-13406.	1.6	16
259	Redox Cycles in Trimethylamine Dehydrogenase and Mechanism of Substrate Inhibitionâ€. Biochemistry, 1999, 38, 14927-14940.	1.2	16
260	Flavoenzyme catalysed oxidation of amines: roles for flavin and protein-based radicals. Biochemical Society Transactions, 2005, 33, 754-757.	1.6	16
261	New Insights into the Reductive Half-reaction Mechanism of Aromatic Amine Dehydrogenase Revealed by Reaction with Carbinolamine Substrates*. Journal of Biological Chemistry, 2007, 282, 23766-23777.	1.6	16
262	Conformational Dynamics of the Cytochrome P450 BM3/N-Palmitoylglycine Complex:â€‰ The Proposed â€œProximalâ^'Distalâ€•Transition Probed by Temperature-Jump Spectroscopy. Journal of Physical Chemistry B, 2007, 111, 7879-7886.	1.2	16
263	Laser Photoexcitation of NAD(P)H Induces Reduction of P450 BM3 Heme Domain on the Microsecond Time Scale. Journal of the American Chemical Society, 2007, 129, 6647-6653.	6.6	16
264	Crystal structure and solution characterization of the activation domain of human methionine synthase. FEBS Journal, 2007, 274, 738-750.	2.2	16
265	Secondary Kinetic Isotope Effects as Probes of Environmentallyâ€Coupled Enzymatic Hydrogen Tunneling Reactions. ChemPhysChem, 2008, 9, 1536-1539.	1.0	16
266	Solvent as a Probe of Active Site Motion and Chemistry during the Hydrogen Tunnelling Reaction in Morphinone Reductase. ChemPhysChem, 2008, 9, 1875-1881.	1.0	16
267	Probing active site geometry using high pressure and secondary isotope effects in an enzymeâ€catalysed â€˜deepâ€™ Hâ€tunnelling reaction. Journal of Physical Organic Chemistry, 2010, 23, 696-701.	0.9	16
268	Nanofibrillar Peptide Hydrogels for the Immobilization of Biocatalysts for Chemical Transformations. Macromolecular Rapid Communications, 2014, 35, 868-874.	2.0	16
269	Ab Initio QM/MM Modeling of the Rate-Limiting Proton Transfer Step in the Deamination of Tryptamine by Aromatic Amine Dehydrogenase. Journal of Physical Chemistry B, 2017, 121, 9785-9798.	1.2	16
270	Enzyme immobilisation on wood-derived cellulose scaffolds <i>via</i> carbohydrate-binding module fusion constructs. Green Chemistry, 2021, 23, 4716-4732.	4.6	16

#	Article	IF	Citations
271	X-ray Scattering Studies of Methylophilus methylotrophus (sp. W3A1) Electron-transferring Flavoprotein. Journal of Biological Chemistry, 2000, 275, 21349-21354.	1.6	15
272	Effects of environment on flavin reactivity in morphinone reductase: analysis of enzymes displaying differential charge near the N-1 atom and C-2 carbonyl region of the active-site flavin. Biochemical Journal, 2001, 359, 315-323.	1.7	15
273	Comprehensive Analysis of the Green-to-Blue Photoconversion of Full-Length Cyanobacteriochrome Tlr0924. Biophysical Journal, 2014, 107, 2195-2203.	0.2	15
274	Correlating Calmodulin Landscapes with Chemical Catalysis in Neuronal Nitric Oxide Synthase using Time-Resolved FRET and a 5-Deazaflavin Thermodynamic Trap. ACS Catalysis, 2016, 6, 5170-5180.	5.5	15
275	Dual role of the active site â€˜lidâ€™ regions of protochlorophyllide oxidoreductase in photocatalysis and plant development. FEBS Journal, 2021, 288, 175-189.	2.2	15
276	Reductive half-reaction of the H172Q mutant of trimethylamine dehydrogenase: evidence against a carbanion mechanism and assignment of kinetically influential ionizations in the enzymeâ€“substrate complex. Biochemical Journal, 1999, 341, 307-314.	1.7	14
277	Computational studies of enzyme mechanism: linking theory with experiment in the analysis of enzymic H-tunnelling. Physical Chemistry Chemical Physics, 2006, 8, 4510.	1.3	14
278	Mechanistic Reappraisal of Early Stage Photochemistry in the Light-Driven Enzyme Protochlorophyllide Oxidoreductase. PLoS ONE, 2012, 7, e45642.	1.1	14
279	Cross-Species Analysis of Protein Dynamics Associated with Hydride and Proton Transfer in the Catalytic Cycle of the Light-Driven Enzyme Protochlorophyllide Oxidoreductase. Biochemistry, 2016, 55, 903-913.	1.2	14
280	Liver microsomal lipid enhances the activity and redox coupling of colocalized cytochrome P450 reductaseâ€cytochrome P450 3A4 in nanodiscs. FEBS Journal, 2017, 284, 2302-2319.	2.2	14
281	Tripping the light fantastic in membrane redox biology: linking dynamic structures to function in ER electron transfer chains. FEBS Journal, 2019, 286, 2004-2017.	2.2	14
282	Active site complementation in engineered hetero-dimers of Escherichia coli glutathione reductase created in vivo. Proceedings of the Royal Society B: Biological Sciences, 1990, 242, 217-224.	1.2	13
283	Tryptophan 697 Modulates Hydride and Interflavin Electron Transfer in Human Methionine Synthase Reductase. Biochemistry, 2011, 50, 11131-11142.	1.2	13
284	ELDOR Spectroscopy Reveals that Energy Landscapes in Human Methionine Synthase Reductase are Extensively Remodelled Following Ligand and Partner Protein Binding. ChemBioChem, 2011, 12, 863-867.	1.3	13
285	Engineering proximal vs. distal hemeâ€“NO coordination via dinitrosyl dynamics: implications for NO sensor design. Chemical Science, 2017, 8, 1986-1994.	3.7	13
286	Chemoenzymatic Synthesis of the Intermediates in the Peppermint Monoterpenoid Biosynthetic Pathway. Journal of Natural Products, 2018, 81, 1546-1552.	1.5	13
287	Solvent-slaved protein motions accompany proton coupled electron transfer reactions catalysed by copper nitrite reductase. Chemical Communications, 2019, 55, 5863-5866.	2.2	13
288	From Bugs to Bioplastics: Total (+)â€Ðihydrocarvide Biosynthesis by Engineered <i>Escherichia coli</i>. ChemBioChem, 2019, 20, 785-792.	1.3	13

#	Article	IF	Citations
289	Selective cellular imaging with lanthanideâ€based upconversion nanoparticles. Journal of Biophotonics, 2019, 12, e201800256.	1.1	13
290	Taming the Reactivity of Monoterpene Synthases To Guide Regioselective Product Hydroxylation. ChemBioChem, 2020, 21, 985-990.	1.3	13
291	Using trimethylamine dehydrogenase in an enzyme linked amperometric electrode. Analyst, The, 2003, 128, 889.	1.7	12
292	Crystal structure of DMGO provides a prototype for a new tetrahydrofolate-binding fold. Biochemical Society Transactions, 2005, 33, 776-779.	1.6	12
293	Atomic Level Insight into the Oxidative Half-reaction of Aromatic Amine Dehydrogenase. Journal of Biological Chemistry, 2006, 281, 40264-40272.	1.6	12
294	Role of histidine 225 in adenosylcobalamin-dependent ornithine 4,5-aminomutase. Bioorganic Chemistry, 2012, 40, 39-47.	2.0	12
295	Nonequivalence of Second Sphere â€œNoncatalyticâ€•Residues in Pentaerythritol Tetranitrate Reductase in Relation to Local Dynamics Linked to H-Transfer in Reactions with NADH and NADPH Coenzymes. ACS Catalysis, 2018, 8, 11589-11599.	5.5	12
296	Streamlining Natural Products Biomanufacturing With Omics and Machine Learning Driven Microbial Engineering. Frontiers in Bioengineering and Biotechnology, 2020, 8, 608918.	2.0	12
297	Advantages of brain penetrating inhibitors of kynurenine-3-monooxygenase for treatment of neurodegenerative diseases. Archives of Biochemistry and Biophysics, 2021, 697, 108702.	1.4	12
298	Blood, sweat, and tears: extraterrestrial regolith biocomposites with in vivo binders. Materials Today Bio, 2021, 12, 100136.	2.6	12
299	Probing Coupled Motions in Enzymatic Hydrogen Tunnelling Reactions: Beyond Temperature-Dependence Studies of Kinetic Isotope Effects. RSC Biomolecular Sciences, 2009, , 199-218.	0.4	12
300	Predictive Engineering of Class I Terpene Synthases Using Experimental and Computational Approaches. ChemBioChem, 2022, 23, .	1.3	12
301	Identification of Covalent Flavoproteins and Analysis of the Covalent Link. , 1999, 131, 181-194.		11
302	Enzymes in the Quantum World. Biochemical Society Transactions, 1999, 27, 767-779.	1.6	11
303	Internal electron transfer in multi-site redox enzymes is accessed by laser excitation of thiouredopyrene-3,6,8-trisulfonate (TUPS). Chemical Communications, 2009, , 1124.	2.2	11
304	Reaction of Vascular Adhesion Protein-1 (VAP-1) with Primary Amines. Journal of Biological Chemistry, 2011, 286, 29584-29593.	1.6	11
305	Dynamic, Electrostatic Model for the Generation and Control of Highâ€Energy Radical Intermediates by a Coenzyme B₁₂â€Dependent Enzyme. ChemBioChem, 2013, 14, 1529-1533.	1.3	11
306	Photochemical Mechanism of an Atypical Algal Phytochrome. ChemBioChem, 2018, 19, 1036-1043.	1.3	11

#	Article	IF	Citations
307	Multifragment DNA Assembly of Biochemical Pathways via Automated Ligase Cycling Reaction. Methods in Enzymology, 2018, 608, 369-392.	0.4	11
308	C3 and C6 Modificationâ€Specific OYE Biotransformations of Synthetic Carvones and Sequential BVMO Chemoenzymatic Synthesis of Chiral Caprolactones. Chemistry - A European Journal, 2019, 25, 2983-2988.	1.7	11
309	Degradation of explosives by nitrate ester reductases. Biochemical Society Symposia, 2001, 68, 143-153.	2.7	10
310	Effects of environment on flavin reactivity in morphinone reductase: analysis of enzymes displaying differential charge near the N-1 atom and C-2 carbonyl region of the active-site flavin. Biochemical Journal, 2001, 359, 315.	1.7	10
311	Tryptophan tryptophylquinone cofactor biogenesis in the aromatic amine dehydrogenase of Alcaligenes faecalis. FEBS Journal, 2005, 272, 5894-5909.	2.2	10
312	Evidence for protein conformational change at a Au(110)/protein interface. Europhysics Letters, 2008, 83, 18004.	0.7	10
313	New insights into the multi-step reaction pathway of the reductive half-reaction catalysed by aromatic amine dehydrogenase: a QM/MM study. Chemical Communications, 2010, 46, 3104.	2.2	10
314	A surprising observation that oxygen can affect the product enantiopurity of an enzymeâ€catalysed reaction. FEBS Journal, 2012, 279, 4160-4171.	2.2	10
315	Proton tunnelling and promoting vibrations during the oxidation of ascorbate by ferricyanide?. Physical Chemistry Chemical Physics, 2014, 16, 2256.	1.3	10
316	Selectivity through discriminatory induced fit enables switching of <scp>NAD</scp>(P)H coenzyme specificity in Old Yellow Enzyme eneâ€reductases. FEBS Journal, 2019, 286, 3117-3128.	2.2	10
317	A plasmid toolset for CRISPRâ€mediated genome editing and CRISPRi gene regulation in <i>Escherichia coli</i>. Microbial Biotechnology, 2021, 14, 1120-1129.	2.0	10
318	Combinatorial use of environmental stresses and genetic engineering to increase ethanol titres in cyanobacteria. Biotechnology for Biofuels, 2021, 14, 240.	6.2	10
319	A designed mutant of the enzyme glutathione reductase shortens the crystallization time by a factor of forty. Acta Crystallographica Section D: Biological Crystallography, 1994, 50, 228-231.	2.5	9
320	Kinetics of CO binding and CO photodissociation in Pseudomonas stutzeri cd1 nitrite reductase: probing the role of extended N-termini in fast structural relaxation upon CO photodissociation. Biochemical Journal, 2001, 355, 39-43.	1.7	9
321	Mechanistic aspects and redox properties of hyperthermophilic L-proline dehydrogenase from Pyrococcus furiosus related to dimethylglycine dehydrogenase/oxidase. FEBS Journal, 2007, 274, 2070-2087.	2.2	9
322	Correction of Pre-Steady-State KIEs for Isotopic Impurities and the Consequences of Kinetic Isotope Fractionation. Journal of Physical Chemistry A, 2008, 112, 13109-13115.	1.1	9
323	Probing the Dynamic Interface between Trimethylamine Dehydrogenase (TMADH) and Electron Transferring Flavoprotein (ETF) in the TMADHâˆ'2ETF Complex: Role of the Arg-Î±237 (ETF) and Tyr-442 (TMADH) Residue Pair[,]. Biochemistry, 2008, 47, 5168-5181.	1.2	9
324	Pinpointing a Mechanistic Switch Between Ketoreduction and â€œEneâ€• Reduction in Shortâ€Chain Dehydrogenases/Reductases. Angewandte Chemie, 2016, 128, 9748-9752.	1.6	9

#	Article	IF	Citations
325	Stepwise Hydride Transfer in a Biological System: Insights into the Reaction Mechanism of the Lightâ€Dependent Protochlorophyllide Oxidoreductase. Angewandte Chemie, 2018, 130, 2712-2716.	1.6	9
326	Photochemical Spin Dynamics of the Vitamin B₁₂ Derivative, Methylcobalamin. Journal of Physical Chemistry B, 2019, 123, 4663-4672.	1.2	9
327	Engineering nature for gaseous hydrocarbon production. Microbial Cell Factories, 2020, 19, 209.	1.9	9
328	Two-electron reduction of quinones by Enterobacter cloacae PB2 pentaerythritol tetranitrate reductase: quantitative structure-activity relationships.. Acta Biochimica Polonica, 2007, 54, 379-385.	0.3	9
329	Conformational changes in the catalytic cycle of protochlorophyllide oxidoreductase: what lessons can be learnt from dihydrofolate reductase?. Biochemical Society Transactions, 2009, 37, 354-357.	1.6	8
330	Quantum Mechanics/Molecular Mechanics Studies on the Mechanism of Action of Cofactor Pyridoxal 5â€²â€Phosphate in Ornithine 4,5â€Aminomutase. Chemistry - A European Journal, 2014, 20, 11390-11401.	1.7	8
331	Does the pressure dependence of kinetic isotope effects report usefully on dynamics in enzyme Hâ€transfer reactions?. FEBS Journal, 2015, 282, 3243-3255.	2.2	8
332	Grapheneâ€"aramid nanocomposite fibres <i>via</i> superacid co-processing. Chemical Communications, 2019, 55, 11703-11706.	2.2	8
333	Ultrafast Vibrational Energy Transfer between Protein and Cofactor in a Flavoenzyme. Journal of Physical Chemistry B, 2020, 124, 5163-5168.	1.2	8
334	Active Intermediates in Copper Nitrite Reductase Reactions Probed by a Cryotrappingâ€Electron Paramagnetic Resonance Approach. Angewandte Chemie - International Edition, 2020, 59, 13936-13940.	7.2	8
335	A Biological Route to Conjugated Alkenes: Microbial Production of Hepta-1,3,5-triene. ACS Synthetic Biology, 2021, 10, 228-235.	1.9	8
336	How Photoactivation Triggers Protochlorophyllide Reduction: Computational Evidence of a Stepwise Hydride Transfer during Chlorophyll Biosynthesis. ACS Catalysis, 2022, 12, 4141-4148.	5.5	8
337	Homodimeric and expanded behaviour of trimethylamine dehydrogenase in solution at different temperatures. European Biophysics Journal, 1996, 24, 159.	1.2	7
338	Crystallization and preliminary diffraction studies of pentaerythritol tetranitrate reductase fromEnterobacter cloacaePB2. Acta Crystallographica Section D: Biological Crystallography, 1998, 54, 675-677.	2.5	7
339	Assignment of the Vibrational Spectra of Enzyme-Bound Tryptophan Tryptophyl Quinones Using a Combined QM/MM Approach. Journal of Physical Chemistry A, 2010, 114, 1212-1217.	1.1	7
340	Modulation of ligandâ€"heme reactivity by binding pocket residues demonstrated in cytochromeÂc' over the femtosecondâ€"second temporal range. FEBS Journal, 2013, 280, 6070-6082.	2.2	7
341	SYNBIOCHEMâ€"a SynBio foundry for the biosynthesis and sustainable production of fine and speciality chemicals. Biochemical Society Transactions, 2016, 44, 675-677.	1.6	7
342	Direct Evidence of an Excited-State Triplet Species upon Photoactivation of the Chlorophyll Precursor Protochlorophyllide. Journal of Physical Chemistry Letters, 2017, 8, 1219-1223.	2.1	7

#	ARTICLE	IF	CITATIONS
343	What are the signatures of tunnelling in enzyme-catalysed reactions?. Faraday Discussions, 2019, 221, 367-378.	1.6	7
344	Photocycle of Cyanobacteriochrome TePixJ. Biochemistry, 2020, 59, 2909-2915.	1.2	7
345	Exploiting Single Domain Antibodies as Regulatory Parts to Modulate Monoterpenoid Production in E. coli. ACS Synthetic Biology, 2020, 9, 2828-2839.	1.9	7
346	Design and fabrication of recombinant reflectin-based multilayer reflectors: bio-design engineering and photoisomerism induced wavelength modulation. Scientific Reports, 2021, 11, 14580.	1.6	7
347	Low temperature solution behaviour of Methylophilus methylotrophus electron transferring flavoprotein: a study by analytical ultracentrifugation. European Biophysics Journal, 1997, 25, 411-416.	1.2	6
348	H-transfers in Photosystem II: what can we learn from recent lessons in the enzyme community?. Photosynthesis Research, 2008, 98, 169-177.	1.6	6
349	Excited-State Properties of Protochlorophyllide Analogues and Implications for Light-Driven Synthesis of Chlorophyll. Journal of Physical Chemistry B, 2017, 121, 1312-1320.	1.2	6
350	1H, 15N and 13C backbone resonance assignments of pentaerythritol tetranitrate reductase from Enterobacter cloacae PB2. Biomolecular NMR Assignments, 2018, 12, 79-83.	0.4	6
351	Promoter engineering for microbial bio-alkane gas production. Synthetic Biology, 2020, 5, ysaa022.	1.2	6
352	Flavin doesnâ€™t put all oxygens in one basket. Nature Chemical Biology, 2020, 16, 485-486.	3.9	6
353	Practical Aspects on the Use of Kinetic Isotope Effects as Probes of Flavoprotein Enzyme Mechanisms. Methods in Molecular Biology, 2014, 1146, 161-175.	0.4	6
354	Isotope Effects Reveal That Para-Substituted Benzylamines Are Poor Reactivity Probes of the Quinoprotein Mechanism for Aromatic Amine Dehydrogenase,. Biochemistry, 2007, 46, 9250-9259.	1.2	5
355	Catalysis by the Isolated Tryptophan Tryptophylquinone-Containing Subunit of Aromatic Amine Dehydrogenase Is Distinct from Native Enzyme and Synthetic Model Compounds and Allows Further Probing of TTQ Mechanism. Biochemistry, 2008, 47, 183-194.	1.2	5
356	A Conformational Sampling Model for Radical Catalysis in Pyridoxal Phosphate- and Cobalamin-dependent Enzymes. Journal of Biological Chemistry, 2014, 289, 34161-34174.	1.6	5
357	Probing Reversible Chemistry in Coenzyme B₁₂â€Đependent Ethanolamine Ammonia Lyase with Kinetic Isotope Effects. Chemistry - A European Journal, 2015, 21, 8826-8831.	1.7	5
358	Observation of the Î” <i>g</i> mechanism resulting from the ultrafast spin dynamics that follow the photolysis of coenzyme B12. Journal of Chemical Physics, 2019, 151, 201102.	1.2	5
359	Molecular Determinants of Carbocation Cyclisation in Bacterial Monoterpene Synthases. ChemBioChem, 2022, 23, .	1.3	5
360	Rubredoxin/rubredoxin reductase of <u>Pseudomonas oleovorans</u>: a model system for investigating interprotein electron transfer. Biochemical Society Transactions, 1996, 24, 447S-447S.	1.6	4

#	Article	IF	Citations
361	Electron transfer in trimethylamine dehydrogenase and electrontransferring flavoprotein. Biochemical Society Transactions, 1999, 27, 196-201.	1.6	4
362	The influence of the structure of the Au(110) surface on the ordering of a monolayer of cytochrome P450 reductase at the Au(110)/phosphate buffer interface. Physica Status Solidi (B): Basic Research, 2014, 251, 549-554.	0.7	4
363	Speeding up enzyme engineering computationally. IUCrJ, 2017, 4, 5-6.	1.0	4
364	Active Intermediates in Copper Nitrite Reductase Reactions Probed by a Cryotrappingâ€Electron Paramagnetic Resonance Approach. Angewandte Chemie, 2020, 132, 14040-14044.	1.6	4
365	Hierarchically Porous Silk/Activated-Carbon Composite Fibres for Adsorption and Repellence of Volatile Organic Compounds. Molecules, 2020, 25, 1207.	1.7	4
366	Flavoprotein disulphide oxidoreductases: protein engineering of glutathione reductase from <i>Escherichia coli</i>. Biochemical Society Transactions, 1988, 16, 84-87.	1.6	3
367	Lys-D48 Is Required for Charge Stabilization, Rapid Flavin Reduction, and Internal Electron Transfer in the Catalytic Cycle of Dihydroorotate Dehydrogenase B of Lactococcus lactis*. Journal of Biological Chemistry, 2006, 281, 17977-17988.	1.6	3
368	Prototyping of microbial chassis for the biomanufacturing of high-value chemical targets. Biochemical Society Transactions, 2021, 49, 1055-1063.	1.6	3
369	Bioproduction of Linalool From Paper Mill Waste. Frontiers in Bioengineering and Biotechnology, 2022, 10, .	2.0	3
370	Crystallization and preliminary diffraction studies of morphinone reductase, a flavoprotein involved in the degradation of morphine alkaloids. Acta Crystallographica Section D: Biological Crystallography, 1997, 53, 619-621.	2.5	2
371	Examining the importance of dynamics, barrier compression and hydrogen tunnelling in enzyme catalysed reactions. Procedia Chemistry, 2011, 3, 306-315.	0.7	2
372	Conformational change in cytochrome P450 reductase adsorbed at a Au(110)â€”phosphate buffer interface induced by interaction with nicotinamide adenine dinucleotide phosphate. Physical Review E, 2014, 90, 022708.	0.8	2
373	Professor Richard Nelson Perham. FEBS Journal, 2015, 282, 1349-1351.	2.2	2
374	1H, 15N, 13C backbone resonance assignments of human soluble catechol O-methyltransferase in complex with S-adenosyl-l-methionine and 3,5-dinitrocatechol. Biomolecular NMR Assignments, 2017, 11, 57-61.	0.4	2
375	Trapping methods for probing functional intermediates in nitric oxide synthases and related enzymes. Frontiers in Bioscience - Landmark, 2018, 23, 1874-1888.	3.0	2
376	Isotopically labeled flavoenzymes and their uses in probing reaction mechanisms. Methods in Enzymology, 2019, 620, 145-166.	0.4	2
377	Thermal, electrochemical and photochemical reactions involving catalytically versatile ene reductase enzymes. The Enzymes, 2020, 47, 491-515.	0.7	2
378	Two-electron reduction of quinones by Enterobacter cloacae PB2 pentaerythritol tetranitrate reductase: quantitative structure-activity relationships. Acta Biochimica Polonica, 2007, 54, 379-85.	0.3	2

#	Article	IF	Citations
379	Dissaction of the FMN-binding site in trimethylamine dehydrogenase. Biochemical Society Transactions, 1995, 23, 509S-509S.	1.6	1
380	Enzyme Mechanisms: Fast Reaction and Computational Approaches. Biochemical Society Transactions, 2009, 37, 333-335.	1.6	1
381	Ordered multilayers of cytochrome P450 reductase adsorbed at Au(110)/phosphate buffer interfaces. Physica Status Solidi (B): Basic Research, 2015, 252, 181-186.	0.7	1
382	Crystal structure of [1,1â€²â€²â€²-bis(pyrimidin-2-yl)-4,4â€²:2â€²,2â€²â€²:4â€²â€²,4â€²â€²â€²-quaterpyridine-1,1â€²â€²â€²-diium-Îº²<i>N< tris(hexafluoridophosphate) acetonitrile trisolvate. Acta Crystallographica Section E: Crystallographic Communications, 2015, 71, 879-882.	0.2	1
383	Glutamate 338 is an electrostatic facilitator of Câ€"Co bond breakage in a dynamic/electrostatic model of catalysis by ornithine aminomutase. FEBS Journal, 2015, 282, 1242-1255.	2.2	1
384	Natural Product Biosynthesis in Escherichia coli. Methods in Enzymology, 2016, 575, 247-270.	0.4	1
385	Preface. Methods in Enzymology, 2018, 608, xvii-xviii.	0.4	1
386	Genome Editing for the Production of Natural Products in <i>Escherichia coli</i>. Advanced Biology, 2018, 2, 1800056.	3.0	1
387	In conversation with Nigel Scrutton. FEBS Journal, 2021, 288, 1728-1733.	2.2	1
388	An unusual light-sensing function for coenzyme B12 in bacterial transcription regulator CarH. Methods in Enzymology, 2022, 668, 349-372.	0.4	1
389	Protein engineering of glutathione reductase: over-expression of the gene from Escherichia coli. Biochemical Society Transactions, 1986, 14, 1229-1230.	1.6	0
390	Electron transfer in trimethylamine dehydrogenase: directed mutagenesis of a potential tunneling pathway. Biochemical Society Transactions, 1996, 24, 456S-456S.	1.6	0
391	Electron transfer in Ï‰-hydroxylation: analysis of rubredoxin reductase and rubredoxin. Biochemical Society Transactions, 1999, 27, A46-A46.	1.6	0
392	Electron transfer in trimethylamine dehydrogenase and electron transferring flavoprotein. Biochemical Society Transactions, 1999, 27, A30-A30.	1.6	0
393	Stepwise electron transfer to 6-S cysteinyl FMN in trimethylamine dehydrogenase. Biochemical Society Transactions, 1999, 27, A45-A45.	1.6	0
394	Substrate inhibition in wild-type and mutant trimethylamine dehydrogenases. Biochemical Society Transactions, 1999, 27, A46-A46.	1.6	0
395	Structure and mechanism of an opiate-transforming redox enzyme: morphinone reductase. Biochemical Society Transactions, 1999, 27, A46-A46.	1.6	0
396	Enzymes in the quantum world. Biochemical Society Transactions, 2000, 28, A1-A1.	1.6	0

#	Article	IF	Citations
397	Electron transfer in human cytochrome P450 reductase. Biochemical Society Transactions, 2001, 29, A9-A9.	1.6	0
398	Chemical Aspects of Amine Oxidation by Flavoprotein Enzymes. ChemInform, 2005, 36, no.	0.1	0
399	Hydrogen Tunneling in Enzyme-Catalyzed Hydrogen Transfer: Aspects from Flavoprotein Catalysed Reactions. , 0, , 1341-1359.		0
400	Inside Cover: Focused Directed Evolution of Pentaerythritol Tetranitrate Reductase by Using Automated Anaerobic Kinetic Screening of Site-Saturated Libraries (ChemBioChem 17/2010). ChemBioChem, 2010, 11, 2326-2326.	1.3	0
401	Editorial overview: Catalysis and regulation: enzyme structure, mechanism, and biosynthetic pathways. Current Opinion in Structural Biology, 2016, 41, viii-x.	2.6	0
402	Flavin oxidation state impacts on nitrofuran antibiotic binding orientation in nitroreductases. Biochemical Journal, 2021, 478, 3423-3428.	1.7	0
403	Professor Richard Nelson Perham, FRS, FMedSci. Biochemist, 2015, 37, 58-59.	0.2	0