Nigel S Scrutton

List of Publications by Year
in descending order

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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	Alternative metabolic pathways and strategies to high-titre terpenoid production inEscherichia coli. Natural Product Reports, 2022, 39, 90-118.	5.2	38
2	A guide to timeâ€resolved structural analysis of lightâ€activated proteins. FEBS Journal, 2022, 289, 576-595.	2.2	25
3	Predictive Engineering of Class I Terpene Synthases Using Experimental and Computational Approaches. ChemBioChem, 2022, 23, .	1.3	12
4	Making molecules with photodecarboxylases: A great start or a false dawn?. Current Research in Chemical Biology, 2022, 2, 100017.	1.4	17
5	An unusual light-sensing function for coenzyme B12 in bacterial transcription regulator CarH. Methods in Enzymology, 2022, 668, 349-372.	0.4	1
6	Molecular Determinants of Carbocation Cyclisation in Bacterial Monoterpene Synthases. ChemBioChem, 2022, 23, .	1.3	5
7	How Photoactivation Triggers Protochlorophyllide Reduction: Computational Evidence of a Stepwise Hydride Transfer during Chlorophyll Biosynthesis. ACS Catalysis, 2022, 12, 4141-4148.	5.5	8
8	Bioproduction of Linalool From Paper Mill Waste. Frontiers in Bioengineering and Biotechnology, 2022, 10, .	2.0	3
9	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
10	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
11	Enzyme immobilisation on wood-derived cellulose scaffolds via carbohydrate-binding module fusion constructs. Green Chemistry, 2021, 23, 4716-4732.	4.6	16
12	A Biological Route to Conjugated Alkenes: Microbial Production of Hepta-1,3,5-triene. ACS Synthetic Biology, 2021, 10, 228-235.	1.9	8
13	Photocatalysis as the â€˜master switchâ€™ of photomorphogenesis in early plant development. Nature Plants, 2021, 7, 268-276.	4.7	22
14	A plasmid toolset for CRISPRâ€mediated genome editing and CRISPRi gene regulation in Escherichia coli. Microbial Biotechnology, 2021, 14, 1120-1129.	2.0	10
15	Isopentenol Utilization Pathway for the Production of Linalool in Escherichia coli Using an Improved Bacterial Linalool/Nerolidol Synthase. ChemBioChem, 2021, 22, 2325-2334.	1.3	28
16	Consolidated Bioprocessing: Synthetic Biology Routes to Fuels and Fine Chemicals. Microorganisms, 2021, 9, 1079.	1.6	19
17	Prototyping of microbial chassis for the biomanufacturing of high-value chemical targets. Biochemical Society Transactions, 2021, 49, 1055-1063.	1.6	3
18	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

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19	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
20	The evolving art of creating genetic diversity: From directed evolution to synthetic biology. Biotechnology Advances, 2021, 50, 107762.	6.0	24
21	Blood, sweat, and tears: extraterrestrial regolith biocomposites with in vivo binders. Materials Today Bio, 2021, 12, 100136.	2.6	12
22	Flavin oxidation state impacts on nitrofuran antibiotic binding orientation in nitroreductases. Biochemical Journal, 2021, 478, 3423-3428.	1.7	0
23	Quantum Biology: An Update and Perspective. Quantum Reports, 2021, 3, 80-126.	0.6	74
24	Insights into the H₂O₂â€driven catalytic mechanism of fungal lytic polysaccharide monooxygenases. FEBS Journal, 2021, 288, 4115-4128.	2.2	47
25	In conversation with Nigel Scrutton. FEBS Journal, 2021, 288, 1728-1733.	2.2	1
26	Combinatorial use of environmental stresses and genetic engineering to increase ethanol titres in cyanobacteria. Biotechnology for Biofuels, 2021, 14, 240.	6.2	10
27	Taming the Reactivity of Monoterpene Synthases To Guide Regioselective Product Hydroxylation. ChemBioChem, 2020, 21, 985-990.	1.3	13
28	Structure of the CannabisÂsativa olivetolâ€producing enzyme reveals cyclization plasticity in type III polyketide synthases. FEBS Journal, 2020, 287, 1511-1524.	2.2	18
29	Techno-economic assessment of microbial limonene production. Bioresource Technology, 2020, 300, 122666.	4.8	43
30	Thermal, electrochemical and photochemical reactions involving catalytically versatile ene reductase enzymes. The Enzymes, 2020, 47, 491-515.	0.7	2
31	Non-covalent protein-based adhesives for transparent substratesâ€"bovine serum albumin vs. recombinant spider silk. Materials Today Bio, 2020, 7, 100068.	2.6	24
32	Engineering nature for gaseous hydrocarbon production. Microbial Cell Factories, 2020, 19, 209.	1.9	9
33	In silico design and automated learning to boost next-generation smart biomanufacturing. Synthetic Biology, 2020, 5, ysaa020.	1.2	23
34	Photocycle of Cyanobacteriochrome TePixJ. Biochemistry, 2020, 59, 2909-2915.	1.2	7
35	Renewable and tuneable bio-LPG blends derived from amino acids. Biotechnology for Biofuels, 2020, 13, 125.	6.2	19
36	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

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37	Promoter engineering for microbial bio-alkane gas production. Synthetic Biology, 2020, 5, ysaa022.	1.2	6
38	Engineering Escherichia coli towards de novo production of gatekeeper (2S)-flavanones: naringenin, pinocembrin, eriodictyol and homoeriodictyol. Synthetic Biology, 2020, 5, ysaa012.	1.2	45
39	Exploiting Single Domain Antibodies as Regulatory Parts to Modulate Monoterpenoid Production in E. coli. ACS Synthetic Biology, 2020, 9, 2828-2839.	1.9	7
40	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
41	Streamlining Natural Products Biomanufacturing With Omics and Machine Learning Driven Microbial Engineering. Frontiers in Bioengineering and Biotechnology, 2020, 8, 608918.	2.0	12
42	Exploring novel bacterial terpene synthases. PLoS ONE, 2020, 15, e0232220.	1.1	30
43	Photochemical Mechanism of Light-Driven Fatty Acid Photodecarboxylase. ACS Catalysis, 2020, 10, 6691-6696.	5.5	72
44	Low carbon strategies for sustainable bio-alkane gas production and renewable energy. Energy and Environmental Science, 2020, 13, 1818-1831.	15.6	77
45	Active Intermediates in Copper Nitrite Reductase Reactions Probed by a Cryotrappingâ€Electron Paramagnetic Resonance Approach. Angewandte Chemie, 2020, 132, 14040-14044.	1.6	4
46	Radical-based photoinactivation of fatty acid photodecarboxylases. Analytical Biochemistry, 2020, 600, 113749.	1.1	48
47	Ultrafast Vibrational Energy Transfer between Protein and Cofactor in a Flavoenzyme. Journal of Physical Chemistry B, 2020, 124, 5163-5168.	1.2	8
48	Hierarchically Porous Silk/Activated-Carbon Composite Fibres for Adsorption and Repellence of Volatile Organic Compounds. Molecules, 2020, 25, 1207.	1.7	4
49	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
50	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
51	Protein Conformational Change Is Essential for Reductive Activation of Lytic Polysaccharide Monooxygenase by Cellobiose Dehydrogenase. ACS Catalysis, 2020, 10, 4842-4853.	5.5	18
52	Rapid prototyping of microbial production strains for the biomanufacture of potential materials monomers. Metabolic Engineering, 2020, 60, 168-182.	3.6	48
53	Flavin doesnâ€™t put all oxygens in one basket. Nature Chemical Biology, 2020, 16, 485-486.	3.9	6
54	Isotopically labeled flavoenzymes and their uses in probing reaction mechanisms. Methods in Enzymology, 2019, 620, 145-166.	0.4	2

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55	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
56	Highly multiplexed, fast and accurate nanopore sequencing for verification of synthetic DNA constructs and sequence libraries. Synthetic Biology, 2019, 4, ysz025.	1.2	35
57	An automated pipeline for the screening of diverse monoterpene synthase libraries. Scientific Reports, 2019, 9, 11936.	1.6	21
58	Grapheneâ€"aramid nanocomposite fibres via superacid co-processing. Chemical Communications, 2019, 55, 11703-11706.	2.2	8
59	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
60	Unexpected Roles of a Tether Harboring a Tyrosine Gatekeeper Residue in Modular Nitrite Reductase Catalysis. ACS Catalysis, 2019, 9, 6087-6099.	5.5	17
61	Building a global alliance of biofoundries. Nature Communications, 2019, 10, 2040.	5.8	167
62	Photochemical Spin Dynamics of the Vitamin B₁₂ Derivative, Methylcobalamin. Journal of Physical Chemistry B, 2019, 123, 4663-4672.	1.2	9
63	Solvent-slaved protein motions accompany proton coupled electron transfer reactions catalysed by copper nitrite reductase. Chemical Communications, 2019, 55, 5863-5866.	2.2	13
64	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
65	Synthetic biology for fibers, adhesives, and active camouflage materials in protection and aerospace. MRS Communications, 2019, 9, 486-504.	0.8	21
66	SelProm: A Queryable and Predictive Expression Vector Selection Tool for Escherichia coli. ACS Synthetic Biology, 2019, 8, 1478-1483.	1.9	37
67	Equatorial Active Site Compaction and Electrostatic Reorganization in Catechol-O-methyltransferase. ACS Catalysis, 2019, 9, 4394-4401.	5.5	21
68	Chemo-enzymatic routes towards the synthesis of bio-based monomers and polymers. Molecular Catalysis, 2019, 467, 95-110.	1.0	30
69	Observation of the Î" g mechanism resulting from the ultrafast spin dynamics that follow the photolysis of coenzyme B12. Journal of Chemical Physics, 2019, 151, 201102.	1.2	5
70	Structural basis for enzymatic photocatalysis in chlorophyll biosynthesis. Nature, 2019, 574, 722-725.	13.7	88
71	Machine Learning of Designed Translational Control Allows Predictive Pathway Optimization in Escherichia coli. ACS Synthetic Biology, 2019, 8, 127-136.	1.9	88
72	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

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73	From Bugs to Bioplastics: Total (+)â€Dihydrocarvide Biosynthesis by Engineered Escherichia coli. ChemBioChem, 2019, 20, 785-792.	1.3	13
74	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
75	Selective cellular imaging with lanthanideâ€based upconversion nanoparticles. Journal of Biophotonics, 2019, 12, e201800256.	1.1	13
76	What are the signatures of tunnelling in enzyme-catalysed reactions?. Faraday Discussions, 2019, 221, 367-378.	1.6	7
77	PartsGenie: an integrated tool for optimizing and sharing synthetic biology parts. Bioinformatics, 2018, 34, 2327-2329.	1.8	25
78	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
79	Selenzyme: enzyme selection tool for pathway design. Bioinformatics, 2018, 34, 2153-2154.	1.8	75
80	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
81	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
82	Engineering the â€œMissing Linkâ€• in Biosynthetic (âˆ’)-Menthol Production: Bacterial Isopulegone Isomerase. ACS Catalysis, 2018, 8, 2012-2020.	5.5	20
83	Bio-derived production of cinnamyl alcohol via a three step biocatalytic cascade and metabolic engineering. Green Chemistry, 2018, 20, 658-663.	4.6	33
84	Photochemical Mechanism of an Atypical Algal Phytochrome. ChemBioChem, 2018, 19, 1036-1043.	1.3	11
85	Biocatalytic Routes to Lactone Monomers for Polymer Production. Biochemistry, 2018, 57, 1997-2008.	1.2	33
86	Discovery, Characterization, Engineering, and Applications of Ene-Reductases for Industrial Biocatalysis. ACS Catalysis, 2018, 8, 3532-3549.	5.5	195
87	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
88	Retooling microorganisms for the fermentative production of alcohols. Current Opinion in Biotechnology, 2018, 50, 1-10.	3.3	17
89	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
90	The sacrificial inactivation of the blue-light photosensor cryptochrome from Drosophila melanogaster. Physical Chemistry Chemical Physics, 2018, 20, 28767-28776.	1.3	19

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91	A Toolbox for Diverse Oxyfunctionalisation of Monoterpenes. Scientific Reports, 2018, 8, 14396.	1.6	25
92	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
93	Preface. Methods in Enzymology, 2018, 608, xvii-xviii.	0.4	1
94	Multifragment DNA Assembly of Biochemical Pathways via Automated Ligase Cycling Reaction. Methods in Enzymology, 2018, 608, 369-392.	0.4	11
95	Genome Editing for the Production of Natural Products in Escherichia coli. Advanced Biology, 2018, 2, 1800056.	3.0	1
96	Trapping methods for probing functional intermediates in nitric oxide synthases and related enzymes. Frontiers in Bioscience - Landmark, 2018, 23, 1874-1888.	3.0	2
97	Chemoenzymatic Synthesis of the Intermediates in the Peppermint Monoterpenoid Biosynthetic Pathway. Journal of Natural Products, 2018, 81, 1546-1552.	1.5	13
98	A biocatalytic method for the chemoselective aerobic oxidation of aldehydes to carboxylic acids. Green Chemistry, 2018, 20, 3931-3943.	4.6	36
99	An automated Design-Build-Test-Learn pipeline for enhanced microbial production of fine chemicals. Communications Biology, 2018, 1, 66.	2.0	159
100	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
101	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
102	Structural insights into the ene-reductase synthesis of profens. Organic and Biomolecular Chemistry, 2017, 15, 4440-4448.	1.5	19
103	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
104	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
105	Vertebrate Cryptochromes are Vestigial Flavoproteins. Scientific Reports, 2017, 7, 44906.	1.6	78
106	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
107	Enzymes make light work of hydrocarbon production. Science, 2017, 357, 872-873.	6.0	22
108	Speeding up enzyme engineering computationally. IUCrJ, 2017, 4, 5-6.	1.0	4

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109	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
110	Structures of carboxylic acid reductase reveal domain dynamics underlying catalysis. Nature Chemical Biology, 2017, 13, 975-981.	3.9	118
111	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
112	Engineering proximal vs. distal hemeâ€"NO coordination via dinitrosyl dynamics: implications for NO sensor design. Chemical Science, 2017, 8, 1986-1994.	3.7	13
113	A perspective on conformational control of electron transfer in nitric oxide synthases. Nitric Oxide - Biology and Chemistry, 2017, 63, 61-67.	1.2	19
114	biochem4j: Integrated and extensible biochemical knowledge through graph databases. PLoS ONE, 2017, 12, e0179130.	1.1	31
115	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
116	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
117	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
118	Natural Product Biosynthesis in Escherichia coli. Methods in Enzymology, 2016, 575, 247-270.	0.4	1
119	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
120	A â€˜Plug and Playâ€™ Platform for the Production of Diverse Monoterpene Hydrocarbon Scaffolds in Escherichia coli.. ChemistrySelect, 2016, 1, 1893-1896.	0.7	42
121	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
122	Editorial overview: Catalysis and regulation: enzyme structure, mechanism, and biosynthetic pathways. Current Opinion in Structural Biology, 2016, 41, viii-x.	2.6	0
123	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
124	Pinpointing a Mechanistic Switch Between Ketoreduction and â€œEneâ€•Reduction in Shortâ€Chain Dehydrogenases/Reductases. Angewandte Chemie, 2016, 128, 9748-9752.	1.6	9
125	An oxidative N-demethylase reveals PAS transition from ubiquitous sensor to enzyme. Nature, 2016, 539, 593-597.	13.7	21
126	Mass spectrometry locates local and allosteric conformational changes that occur on cofactor binding. Nature Communications, 2016, 7, 12163.	5.8	53

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127	Magnetic Fields Modulate Blue-Light-Dependent Regulation of Neuronal Firing by Cryptochrome. Journal of Neuroscience, 2016, 36, 10742-10749.	1.7	48
128	Towards synthesis of monoterpenes and derivatives using synthetic biology. Current Opinion in Chemical Biology, 2016, 34, 37-43.	2.8	89
129	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
130	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
131	Better than Nature: Nicotinamide Biomimetics That Outperform Natural Coenzymes. Journal of the American Chemical Society, 2016, 138, 1033-1039.	6.6	164
132	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
133	Probing Reversible Chemistry in Coenzyme B₁₂â€Dependent Ethanolamine Ammonia Lyase with Kinetic Isotope Effects. Chemistry - A European Journal, 2015, 21, 8826-8831.	1.7	5
134	Towards the free energy landscape for catalysis in mammalian nitric oxide synthases. FEBS Journal, 2015, 282, 3016-3029.	2.2	23
135	Professor Richard Nelson Perham. FEBS Journal, 2015, 282, 1349-1351.	2.2	2
136	Realâ€time analysis of conformational control in electron transfer reactions of human cytochrome P450 reductase with cytochrome c. FEBS Journal, 2015, 282, 4357-4375.	2.2	27
137	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
138	Enzymatic Menthol Production: One-Pot Approach Using Engineered Escherichia coli. ACS Synthetic Biology, 2015, 4, 1112-1123.	1.9	61
139	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
140	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
141	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
142	UbiX is a flavin prenyltransferase required for bacterial ubiquinone biosynthesis. Nature, 2015, 522, 502-506.	13.7	168
143	New cofactor supports Î±,Î²-unsaturated acid decarboxylation via 1,3-dipolar cycloaddition. Nature, 2015, 522, 497-501.	13.7	197
144	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-Î°²N tris(hexafluoridophosphate) acetonitrile trisolvate. Acta Crystallographica Section E: Crystallographic Communications, 2015, 71, 879-882.	0.2	1

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145	A microbial platform for renewable propane synthesis based on a fermentative butanol pathway. Biotechnology for Biofuels, 2015, 8, 61.	6.2	53
146	Nuclear quantum tunnelling in enzymatic reactions â€“ an enzymologist's perspective. Physical Chemistry Chemical Physics, 2015, 17, 30775-30782.	1.3	18
147	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
148	Conversion of alcohols to enantiopure amines through dual-enzyme hydrogen-borrowing cascades. Science, 2015, 349, 1525-1529.	6.0	339
149	The photochemical mechanism of a B12-dependent photoreceptor protein. Nature Communications, 2015, 6, 7907.	5.8	92
150	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
151	Structure and Mechanism of a Viral Collagen Prolyl Hydroxylase. Biochemistry, 2015, 54, 6093-6105.	1.2	19
152	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
153	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
154	Professor Richard Nelson Perham, FRS, FMedSci. Biochemist, 2015, 37, 58-59.	0.2	0
155	Energy Landscapes and Catalysis in Nitric-oxide Synthase. Journal of Biological Chemistry, 2014, 289, 11725-11738.	1.6	25
156	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
157	Impact of residues remote from the catalytic centre on enzyme catalysis of copper nitrite reductase. Nature Communications, 2014, 5, 4395.	5.8	36
158	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
159	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
160	Nanofibrillar Peptide Hydrogels for the Immobilization of Biocatalysts for Chemical Transformations. Macromolecular Rapid Communications, 2014, 35, 868-874.	2.0	16
161	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
162	Comprehensive Analysis of the Green-to-Blue Photoconversion of Full-Length Cyanobacteriochrome Tlr0924. Biophysical Journal, 2014, 107, 2195-2203.	0.2	15

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163	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
164	New developments in â€˜eneâ€™-reductase catalysed biological hydrogenations. Current Opinion in Chemical Biology, 2014, 19, 107-115.	2.8	123
165	Proton tunnelling and promoting vibrations during the oxidation of ascorbate by ferricyanide?. Physical Chemistry Chemical Physics, 2014, 16, 2256.	1.3	10
166	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
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