

# Nigel S Scrutton

## List of Publications by Year in descending order

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Version: 2024-02-01

403  
papers

16,349  
citations

17440

63  
h-index

33894

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 in <i>Escherichia coli</i> . <i>Natural Product Reports</i> , 2022, 39, 90-118.	10.3	38
2	A guide to time-resolved structural analysis of light-activated proteins. <i>FEBS Journal</i> , 2022, 289, 576-595.	4.7	25
3	Predictive Engineering of Class I Terpene Synthases Using Experimental and Computational Approaches. <i>ChemBioChem</i> , 2022, 23, .	2.6	12
4	Making molecules with photodecarboxylases: A great start or a false dawn?. <i>Current Research in Chemical Biology</i> , 2022, 2, 100017.	2.9	17
5	An unusual light-sensing function for coenzyme B12 in bacterial transcription regulator CarH. <i>Methods in Enzymology</i> , 2022, 668, 349-372.	1.0	1
6	Molecular Determinants of Carbocation Cyclisation in Bacterial Monoterpene Synthases. <i>ChemBioChem</i> , 2022, 23, .	2.6	5
7	How Photoactivation Triggers Protochlorophyllide Reduction: Computational Evidence of a Stepwise Hydride Transfer during Chlorophyll Biosynthesis. <i>ACS Catalysis</i> , 2022, 12, 4141-4148.	11.2	8
8	Bioproduction of Linalool From Paper Mill Waste. <i>Frontiers in Bioengineering and Biotechnology</i> , 2022, 10, .	4.1	3
9	Advantages of brain penetrating inhibitors of kynurenine-3-monooxygenase for treatment of neurodegenerative diseases. <i>Archives of Biochemistry and Biophysics</i> , 2021, 697, 108702.	3.0	12
10	Dual role of the active site $\tilde{\text{lid}}^{\text{TM}}$ regions of protochlorophyllide oxidoreductase in photocatalysis and plant development. <i>FEBS Journal</i> , 2021, 288, 175-189.	4.7	15
11	Enzyme immobilisation on wood-derived cellulose scaffolds <i>via</i> carbohydrate-binding module fusion constructs. <i>Green Chemistry</i> , 2021, 23, 4716-4732.	9.0	16
12	A Biological Route to Conjugated Alkenes: Microbial Production of Hepta-1,3,5-triene. <i>ACS Synthetic Biology</i> , 2021, 10, 228-235.	3.8	8
13	Photocatalysis as the $\tilde{\text{master switch}}^{\text{TM}}$ of photomorphogenesis in early plant development. <i>Nature Plants</i> , 2021, 7, 268-276.	9.3	22
14	A plasmid toolset for CRISPR-mediated genome editing and CRISPRi gene regulation in <i>Escherichia coli</i> . <i>Microbial Biotechnology</i> , 2021, 14, 1120-1129.	4.2	10
15	Isopentenol Utilization Pathway for the Production of Linalool in <i>Escherichia coli</i> Using an Improved Bacterial Linalool/Nerolidol Synthase. <i>ChemBioChem</i> , 2021, 22, 2325-2334.	2.6	28
16	Consolidated Bioprocessing: Synthetic Biology Routes to Fuels and Fine Chemicals. <i>Microorganisms</i> , 2021, 9, 1079.	3.6	19
17	Prototyping of microbial chassis for the biomanufacturing of high-value chemical targets. <i>Biochemical Society Transactions</i> , 2021, 49, 1055-1063.	3.4	3
18	Inflammation control and improvement of cognitive function in COVID-19 infections: is there a role for kynurenine 3-monooxygenase inhibition?. <i>Drug Discovery Today</i> , 2021, 26, 1473-1481.	6.4	20

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19	Design and fabrication of recombinant reflectin-based multilayer reflectors: bio-design engineering and photoisomerism induced wavelength modulation. <i>Scientific Reports</i> , 2021, 11, 14580.	3.3	7
20	The evolving art of creating genetic diversity: From directed evolution to synthetic biology. <i>Biotechnology Advances</i> , 2021, 50, 107762.	11.7	24
21	Blood, sweat, and tears: extraterrestrial regolith biocomposites with in vivo binders. <i>Materials Today Bio</i> , 2021, 12, 100136.	5.5	12
22	Flavin oxidation state impacts on nitrofurantoin antibiotic binding orientation in nitroreductases. <i>Biochemical Journal</i> , 2021, 478, 3423-3428.	3.7	0
23	Quantum Biology: An Update and Perspective. <i>Quantum Reports</i> , 2021, 3, 80-126.	1.3	74
24	Insights into the H <sub>2</sub> O <sub>2</sub> -driven catalytic mechanism of fungal lytic polysaccharide monooxygenases. <i>FEBS Journal</i> , 2021, 288, 4115-4128.	4.7	47
25	In conversation with Nigel Scrutton. <i>FEBS Journal</i> , 2021, 288, 1728-1733.	4.7	1
26	Combinatorial use of environmental stresses and genetic engineering to increase ethanol titres in cyanobacteria. <i>Biotechnology for Biofuels</i> , 2021, 14, 240.	6.2	10
27	Taming the Reactivity of Monoterpene Synthases To Guide Regioselective Product Hydroxylation. <i>ChemBioChem</i> , 2020, 21, 985-990.	2.6	13
28	Structure of the <i>Cannabis sativa</i> olivetol-producing enzyme reveals cyclization plasticity in type III polyketide synthases. <i>FEBS Journal</i> , 2020, 287, 1511-1524.	4.7	18
29	Techno-economic assessment of microbial limonene production. <i>Bioresource Technology</i> , 2020, 300, 122666.	9.6	43
30	Thermal, electrochemical and photochemical reactions involving catalytically versatile ene reductase enzymes. <i>The Enzymes</i> , 2020, 47, 491-515.	1.7	2
31	Non-covalent protein-based adhesives for transparent substrates—bovine serum albumin vs. recombinant spider silk. <i>Materials Today Bio</i> , 2020, 7, 100068.	5.5	24
32	Engineering nature for gaseous hydrocarbon production. <i>Microbial Cell Factories</i> , 2020, 19, 209.	4.0	9
33	In silico design and automated learning to boost next-generation smart biomanufacturing. <i>Synthetic Biology</i> , 2020, 5, ysaa020.	2.2	23
34	Photocycle of Cyanobacteriochrome TePixJ. <i>Biochemistry</i> , 2020, 59, 2909-2915.	2.5	7
35	Renewable and tuneable bio-LPG blends derived from amino acids. <i>Biotechnology for Biofuels</i> , 2020, 13, 125.	6.2	19
36	Production of the Fragrance Geraniol in Peroxisomes of a Product-Tolerant Baker's Yeast. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 582052.	4.1	22

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37	Promoter engineering for microbial bio-alkane gas production. <i>Synthetic Biology</i> , 2020, 5, ysaa022.	2.2	6
38	Engineering <i>Escherichia coli</i> towards de novo production of gatekeeper (2S)-flavanones: naringenin, pinocembrin, eriodictyol and homoeriodictyol. <i>Synthetic Biology</i> , 2020, 5, ysaa012.	2.2	45
39	Exploiting Single Domain Antibodies as Regulatory Parts to Modulate Monoterpenoid Production in <i>E. coli</i> . <i>ACS Synthetic Biology</i> , 2020, 9, 2828-2839.	3.8	7
40	Catalytic Mechanism of Aromatic Nitration by Cytochrome P450 TxtE: Involvement of a Ferric-Peroxynitrite Intermediate. <i>Journal of the American Chemical Society</i> , 2020, 142, 15764-15779.	13.7	55
41	Streamlining Natural Products Biomanufacturing With Omics and Machine Learning Driven Microbial Engineering. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 608918.	4.1	12
42	Exploring novel bacterial terpene synthases. <i>PLoS ONE</i> , 2020, 15, e0232220.	2.5	30
43	Photochemical Mechanism of Light-Driven Fatty Acid Photodecarboxylase. <i>ACS Catalysis</i> , 2020, 10, 6691-6696.	11.2	72
44	Low carbon strategies for sustainable bio-alkane gas production and renewable energy. <i>Energy and Environmental Science</i> , 2020, 13, 1818-1831.	30.8	77
45	Active Intermediates in Copper Nitrite Reductase Reactions Probed by a Cryotrappingâ€Electron Paramagnetic Resonance Approach. <i>Angewandte Chemie</i> , 2020, 132, 14040-14044.	2.0	4
46	Radical-based photoinactivation of fatty acid photodecarboxylases. <i>Analytical Biochemistry</i> , 2020, 600, 113749.	2.4	48
47	Ultrafast Vibrational Energy Transfer between Protein and Cofactor in a Flavoenzyme. <i>Journal of Physical Chemistry B</i> , 2020, 124, 5163-5168.	2.6	8
48	Hierarchically Porous Silk/Activated-Carbon Composite Fibres for Adsorption and Repellence of Volatile Organic Compounds. <i>Molecules</i> , 2020, 25, 1207.	3.8	4
49	The effect of terminal globular domains on the response of recombinant mini-spidroins to fiber spinning triggers. <i>Scientific Reports</i> , 2020, 10, 10671.	3.3	22
50	Active Intermediates in Copper Nitrite Reductase Reactions Probed by a Cryotrappingâ€Electron Paramagnetic Resonance Approach. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 13936-13940.	13.8	8
51	Protein Conformational Change Is Essential for Reductive Activation of Lytic Polysaccharide Monooxygenase by Cellobiose Dehydrogenase. <i>ACS Catalysis</i> , 2020, 10, 4842-4853.	11.2	18
52	Rapid prototyping of microbial production strains for the biomanufacture of potential materials monomers. <i>Metabolic Engineering</i> , 2020, 60, 168-182.	7.0	48
53	Flavin doesnâ€™t put all oxygens in one basket. <i>Nature Chemical Biology</i> , 2020, 16, 485-486.	8.0	6
54	Isotopically labeled flavoenzymes and their uses in probing reaction mechanisms. <i>Methods in Enzymology</i> , 2019, 620, 145-166.	1.0	2

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55	A brain-permeable inhibitor of the neurodegenerative disease target kynurenine 3-monooxygenase prevents accumulation of neurotoxic metabolites. <i>Communications Biology</i> , 2019, 2, 271.	4.4	36
56	Highly multiplexed, fast and accurate nanopore sequencing for verification of synthetic DNA constructs and sequence libraries. <i>Synthetic Biology</i> , 2019, 4, ysz025.	2.2	35
57	An automated pipeline for the screening of diverse monoterpene synthase libraries. <i>Scientific Reports</i> , 2019, 9, 11936.	3.3	21
58	Graphene-aramid nanocomposite fibres <i>via</i> superacid co-processing. <i>Chemical Communications</i> , 2019, 55, 11703-11706.	4.1	8
59	Tripping the light fantastic in membrane redox biology: linking dynamic structures to function in ER electron transfer chains. <i>FEBS Journal</i> , 2019, 286, 2004-2017.	4.7	14
60	Unexpected Roles of a Tether Harboring a Tyrosine Gatekeeper Residue in Modular Nitrite Reductase Catalysis. <i>ACS Catalysis</i> , 2019, 9, 6087-6099.	11.2	17
61	Building a global alliance of biofoundries. <i>Nature Communications</i> , 2019, 10, 2040.	12.8	167
62	Photochemical Spin Dynamics of the Vitamin B <sub>12</sub> Derivative, Methylcobalamin. <i>Journal of Physical Chemistry B</i> , 2019, 123, 4663-4672.	2.6	9
63	Solvent-slaved protein motions accompany proton coupled electron transfer reactions catalysed by copper nitrite reductase. <i>Chemical Communications</i> , 2019, 55, 5863-5866.	4.1	13
64	Selectivity through discriminatory induced fit enables switching of NAD(P)H coenzyme specificity in Old Yellow Enzyme reductases. <i>FEBS Journal</i> , 2019, 286, 3117-3128.	4.7	10
65	Synthetic biology for fibers, adhesives, and active camouflage materials in protection and aerospace. <i>MRS Communications</i> , 2019, 9, 486-504.	1.8	21
66	SelProm: A Queryable and Predictive Expression Vector Selection Tool for <i>Escherichia coli</i> . <i>ACS Synthetic Biology</i> , 2019, 8, 1478-1483.	3.8	37
67	Equatorial Active Site Compaction and Electrostatic Reorganization in Catechol-O-methyltransferase. <i>ACS Catalysis</i> , 2019, 9, 4394-4401.	11.2	21
68	Chemo-enzymatic routes towards the synthesis of bio-based monomers and polymers. <i>Molecular Catalysis</i> , 2019, 467, 95-110.	2.0	30
69	Observation of the "g" mechanism resulting from the ultrafast spin dynamics that follow the photolysis of coenzyme B12. <i>Journal of Chemical Physics</i> , 2019, 151, 201102.	3.0	5
70	Structural basis for enzymatic photocatalysis in chlorophyll biosynthesis. <i>Nature</i> , 2019, 574, 722-725.	27.8	88
71	Machine Learning of Designed Translational Control Allows Predictive Pathway Optimization in <i>Escherichia coli</i> . <i>ACS Synthetic Biology</i> , 2019, 8, 127-136.	3.8	88
72	Light-induced structural changes in a full-length cyanobacterial phytochrome probed by time-resolved X-ray scattering. <i>Communications Biology</i> , 2019, 2, 1.	4.4	611

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73	From Bugs to Bioplastics: Total (+)- $\alpha$ -Dihydrocarvide Biosynthesis by Engineered <i>Escherichia coli</i> . <i>ChemBioChem</i> , 2019, 20, 785-792.	2.6	13
74	C3 and C6 Modification-Specific OYE Biotransformations of Synthetic Carvones and Sequential BVMO Chemoenzymatic Synthesis of Chiral Caprolactones. <i>Chemistry - A European Journal</i> , 2019, 25, 2983-2988.	3.3	11
75	Selective cellular imaging with lanthanide-based upconversion nanoparticles. <i>Journal of Biophotonics</i> , 2019, 12, e201800256.	2.3	13
76	What are the signatures of tunnelling in enzyme-catalysed reactions?. <i>Faraday Discussions</i> , 2019, 221, 367-378.	3.2	7
77	PartsGenie: an integrated tool for optimizing and sharing synthetic biology parts. <i>Bioinformatics</i> , 2018, 34, 2327-2329.	4.1	25
78	A living foundry for Synthetic Biological Materials: A synthetic biology roadmap to new advanced materials. <i>Synthetic and Systems Biotechnology</i> , 2018, 3, 105-112.	3.7	55
79	Selenzyme: enzyme selection tool for pathway design. <i>Bioinformatics</i> , 2018, 34, 2153-2154.	4.1	75
80	Stepwise Hydride Transfer in a Biological System: Insights into the Reaction Mechanism of the Light-Dependent Protochlorophyllide Oxidoreductase. <i>Angewandte Chemie</i> , 2018, 130, 2712-2716.	2.0	9
81	Stepwise Hydride Transfer in a Biological System: Insights into the Reaction Mechanism of the Light-Dependent Protochlorophyllide Oxidoreductase. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 2682-2686.	13.8	37
82	Engineering the "Missing Link" in Biosynthetic ( $\alpha$ )-Menthol Production: Bacterial Isopulegone Isomerase. <i>ACS Catalysis</i> , 2018, 8, 2012-2020.	11.2	20
83	Bio-derived production of cinnamyl alcohol via a three step biocatalytic cascade and metabolic engineering. <i>Green Chemistry</i> , 2018, 20, 658-663.	9.0	33
84	Photochemical Mechanism of an Atypical Algal Phytochrome. <i>ChemBioChem</i> , 2018, 19, 1036-1043.	2.6	11
85	Biocatalytic Routes to Lactone Monomers for Polymer Production. <i>Biochemistry</i> , 2018, 57, 1997-2008.	2.5	33
86	Discovery, Characterization, Engineering, and Applications of Ene-Reductases for Industrial Biocatalysis. <i>ACS Catalysis</i> , 2018, 8, 3532-3549.	11.2	195
87	Experiment and Simulation Reveal How Mutations in Functional Plasticity Regions Guide Plant Monoterpene Synthase Product Outcome. <i>ACS Catalysis</i> , 2018, 8, 3780-3791.	11.2	32
88	Retooling microorganisms for the fermentative production of alcohols. <i>Current Opinion in Biotechnology</i> , 2018, 50, 1-10.	6.6	17
89	$^1\text{H}$ , $^{15}\text{N}$ and $^{13}\text{C}$ backbone resonance assignments of pentaerythritol tetranitrate reductase from <i>Enterobacter cloacae</i> PB2. <i>Biomolecular NMR Assignments</i> , 2018, 12, 79-83.	0.8	6
90	The sacrificial inactivation of the blue-light photosensor cryptochrome from <i>Drosophila melanogaster</i> . <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 28767-28776.	2.8	19

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91	A Toolbox for Diverse Oxyfunctionalisation of Monoterpenes. <i>Scientific Reports</i> , 2018, 8, 14396.	3.3	25
92	Nonequivalence of Second Sphere "Noncatalytic" Residues in Pentaerythritol Tetranitrate Reductase in Relation to Local Dynamics Linked to H-Transfer in Reactions with NADH and NADPH Coenzymes. <i>ACS Catalysis</i> , 2018, 8, 11589-11599.	11.2	12
93	Preface. <i>Methods in Enzymology</i> , 2018, 608, xvii-xviii.	1.0	1
94	Multifragment DNA Assembly of Biochemical Pathways via Automated Ligase Cycling Reaction. <i>Methods in Enzymology</i> , 2018, 608, 369-392.	1.0	11
95	Genome Editing for the Production of Natural Products in <i>Escherichia coli</i> . <i>Advanced Biology</i> , 2018, 2, 1800056.	3.0	1
96	Trapping methods for probing functional intermediates in nitric oxide synthases and related enzymes. <i>Frontiers in Bioscience - Landmark</i> , 2018, 23, 1874-1888.	3.0	2
97	Chemoenzymatic Synthesis of the Intermediates in the Peppermint Monoterpenoid Biosynthetic Pathway. <i>Journal of Natural Products</i> , 2018, 81, 1546-1552.	3.0	13
98	A biocatalytic method for the chemoselective aerobic oxidation of aldehydes to carboxylic acids. <i>Green Chemistry</i> , 2018, 20, 3931-3943.	9.0	36
99	An automated Design-Build-Test-Learn pipeline for enhanced microbial production of fine chemicals. <i>Communications Biology</i> , 2018, 1, 66.	4.4	159
100	Direct Evidence of an Excited-State Triplet Species upon Photoactivation of the Chlorophyll Precursor Protochlorophyllide. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 1219-1223.	4.6	7
101	Excited-State Properties of Protochlorophyllide Analogues and Implications for Light-Driven Synthesis of Chlorophyll. <i>Journal of Physical Chemistry B</i> , 2017, 121, 1312-1320.	2.6	6
102	Structural insights into the ene-reductase synthesis of profens. <i>Organic and Biomolecular Chemistry</i> , 2017, 15, 4440-4448.	2.8	19
103	Liver microsomal lipid enhances the activity and redox coupling of colocalized cytochrome P450 reductase-cytochrome P450 3A4 in nanodiscs. <i>FEBS Journal</i> , 2017, 284, 2302-2319.	4.7	14
104	Convergence of Theory and Experiment on the Role of Preorganization, Quantum Tunneling, and Enzyme Motions into Flavoenzyme-Catalyzed Hydride Transfer. <i>ACS Catalysis</i> , 2017, 7, 3190-3198.	11.2	31
105	Vertebrate Cryptochromes are Vestigial Flavoproteins. <i>Scientific Reports</i> , 2017, 7, 44906.	3.3	78
106	<sup>1</sup> H, <sup>15</sup> N, <sup>13</sup> C backbone resonance assignments of human soluble catechol O-methyltransferase in complex with S-adenosyl-L-methionine and 3,5-dinitrocatechol. <i>Biomolecular NMR Assignments</i> , 2017, 11, 57-61.	0.8	2
107	Enzymes make light work of hydrocarbon production. <i>Science</i> , 2017, 357, 872-873.	12.6	22
108	Speeding up enzyme engineering computationally. <i>IUCr</i> , 2017, 4, 5-6.	2.2	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. <i>Journal of Physical Chemistry B</i> , 2017, 121, 9785-9798.	2.6	16
110	Structures of carboxylic acid reductase reveal domain dynamics underlying catalysis. <i>Nature Chemical Biology</i> , 2017, 13, 975-981.	8.0	118
111	Structural Basis of Catalysis in the Bacterial Monoterpene Synthases Linalool Synthase and 1,8-Cineole Synthase. <i>ACS Catalysis</i> , 2017, 7, 6268-6282.	11.2	47
112	Engineering proximal vs. distal heme-NO coordination via dinitrosyl dynamics: implications for NO sensor design. <i>Chemical Science</i> , 2017, 8, 1986-1994.	7.4	13
113	A perspective on conformational control of electron transfer in nitric oxide synthases. <i>Nitric Oxide - Biology and Chemistry</i> , 2017, 63, 61-67.	2.7	19
114	biochem4j: Integrated and extensible biochemical knowledge through graph databases. <i>PLoS ONE</i> , 2017, 12, e0179130.	2.5	31
115	Correlating Calmodulin Landscapes with Chemical Catalysis in Neuronal Nitric Oxide Synthase using Time-Resolved FRET and a 5-Deazaflavin Thermodynamic Trap. <i>ACS Catalysis</i> , 2016, 6, 5170-5180.	11.2	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. <i>Biochemistry</i> , 2016, 55, 903-913.	2.5	14
117	SYNBIOCHEM—a SynBio foundry for the biosynthesis and sustainable production of fine and speciality chemicals. <i>Biochemical Society Transactions</i> , 2016, 44, 675-677.	3.4	7
118	Natural Product Biosynthesis in <i>Escherichia coli</i> . <i>Methods in Enzymology</i> , 2016, 575, 247-270.	1.0	1
119	Untangling Heavy Protein and Cofactor Isotope Effects on Enzyme-Catalyzed Hydride Transfer. <i>Journal of the American Chemical Society</i> , 2016, 138, 13693-13699.	13.7	26
120	A “Plug and Play” Platform for the Production of Diverse Monoterpene Hydrocarbon Scaffolds in <i>Escherichia coli</i> . <i>ChemistrySelect</i> , 2016, 1, 1893-1896.	1.5	42
121	Donor-Acceptor Distance Sampling Enhances the Performance of “Better than Nature” Nicotinamide Coenzyme Biomimetics. <i>Journal of the American Chemical Society</i> , 2016, 138, 11089-11092.	13.7	38
122	Editorial overview: Catalysis and regulation: enzyme structure, mechanism, and biosynthetic pathways. <i>Current Opinion in Structural Biology</i> , 2016, 41, viii-x.	5.7	0
123	Pinpointing a Mechanistic Switch Between Ketoreduction and “Ene”-Reduction in Short-Chain Dehydrogenases/Reductases. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 9596-9600.	13.8	21
124	Pinpointing a Mechanistic Switch Between Ketoreduction and “Ene”-Reduction in Short-Chain Dehydrogenases/Reductases. <i>Angewandte Chemie</i> , 2016, 128, 9748-9752.	2.0	9
125	An oxidative N-demethylase reveals PAS transition from ubiquitous sensor to enzyme. <i>Nature</i> , 2016, 539, 593-597.	27.8	21
126	Mass spectrometry locates local and allosteric conformational changes that occur on cofactor binding. <i>Nature Communications</i> , 2016, 7, 12163.	12.8	53



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127	Magnetic Fields Modulate Blue-Light-Dependent Regulation of Neuronal Firing by Cryptochrome. <i>Journal of Neuroscience</i> , 2016, 36, 10742-10749.	3.6	48
128	Towards synthesis of monoterpenes and derivatives using synthetic biology. <i>Current Opinion in Chemical Biology</i> , 2016, 34, 37-43.	6.1	89
129	Sweating the assets of flavin cofactors: new insight of chemical versatility from knowledge of structure and mechanism. <i>Current Opinion in Structural Biology</i> , 2016, 41, 19-26.	5.7	58
130	Multiple active site residues are important for photochemical efficiency in the light-activated enzyme protochlorophyllide oxidoreductase (POR). <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2016, 161, 236-243.	3.8	23
131	Better than Nature: Nicotinamide Biomimetics That Outperform Natural Coenzymes. <i>Journal of the American Chemical Society</i> , 2016, 138, 1033-1039.	13.7	164
132	Light-driven biocatalytic reduction of $\hat{1}\pm, \hat{1}^2$ -unsaturated compounds by ene reductases employing transition metal complexes as photosensitizers. <i>Catalysis Science and Technology</i> , 2016, 6, 169-177.	4.1	48
133	Probing Reversible Chemistry in Coenzyme B <sub>12</sub> -Dependent Ethanolamine Ammonia Lyase with Kinetic Isotope Effects. <i>Chemistry - A European Journal</i> , 2015, 21, 8826-8831.	3.3	5
134	Towards the free energy landscape for catalysis in mammalian nitric oxide synthases. <i>FEBS Journal</i> , 2015, 282, 3016-3029.	4.7	23
135	Professor Richard Nelson Perham. <i>FEBS Journal</i> , 2015, 282, 1349-1351.	4.7	2
136	Real-time analysis of conformational control in electron transfer reactions of human cytochrome P450 reductase with cytochrome <i>c</i> . <i>FEBS Journal</i> , 2015, 282, 4357-4375.	4.7	27
137	Ordered multilayers of cytochrome P450 reductase adsorbed at Au(110)/phosphate buffer interfaces. <i>Physica Status Solidi (B): Basic Research</i> , 2015, 252, 181-186.	1.5	1
138	Enzymatic Menthol Production: One-Pot Approach Using Engineered <i>Escherichia coli</i> . <i>ACS Synthetic Biology</i> , 2015, 4, 1112-1123.	3.8	61
139	Catalytic Mechanism of Cofactor-Free Dioxygenases and How They Circumvent Spin-Forbidden Oxygenation of Their Substrates. <i>Journal of the American Chemical Society</i> , 2015, 137, 7474-7487.	13.7	70
140	Does the pressure dependence of kinetic isotope effects report usefully on dynamics in enzyme H <sub>2</sub> -transfer reactions?. <i>FEBS Journal</i> , 2015, 282, 3243-3255.	4.7	8
141	Excited-State Charge Separation in the Photochemical Mechanism of the Light-Driven Enzyme Protochlorophyllide Oxidoreductase. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 1512-1515.	13.8	38
142	UbiX is a flavin prenyltransferase required for bacterial ubiquinone biosynthesis. <i>Nature</i> , 2015, 522, 502-506.	27.8	168
143	New cofactor supports $\hat{1}\pm, \hat{1}^2$ -unsaturated acid decarboxylation via 1,3-dipolar cycloaddition. <i>Nature</i> , 2015, 522, 497-501.	27.8	197
144	Crystal structure of [1,1â€²-bis(pyrimidin-2-yl)-4,4â€²:2â€²,2â€²â€²:4â€²â€²,4â€²â€²â€²-quaterpyridine-1,1â€²â€²-dium- <sup>1+</sup> â€²<sup>2</sup>]â€²<sup>2</sup>â€²<sup>1</sup> tris(hexafluoridophosphate) acetonitrile trisolvate. <i>Acta Crystallographica Section E: Crystallographic Communications</i> , 2015, 71, 879-882.	0.5	1

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145	A microbial platform for renewable propane synthesis based on a fermentative butanol pathway. <i>Biotechnology for Biofuels</i> , 2015, 8, 61.	6.2	53
146	Nuclear quantum tunnelling in enzymatic reactions – an enzymologist's perspective. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 30775-30782.	2.8	18
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