# Nigel S Scrutton

## List of Publications by Year in Descending Order

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

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|---|---|---|---|
| 401 papers | 13,034 citations | 58 h-index | 91 g-index |
| 425 ext. papers | 14,647 ext. citations | 7.3 avg, IF | 6.67 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 401 | Making molecules with photodecarboxylases: A great start or a false dawn?. *Current Research in Chemical Biology*, **2022**, 2, 100017 | | 2 |
| 400 | An unusual light-sensing function for coenzyme B in bacterial transcription regulator CarH.. *Methods in Enzymology*, **2022**, 668, 349-372 | 1.7 | |
| 399 | How Photoactivation Triggers Protochlorophyllide Reduction: Computational Evidence of a Stepwise Hydride Transfer during Chlorophyll Biosynthesis.. *ACS Catalysis*, **2022**, 12, 4141-4148 | 13.1 | 0 |
| 398 | GeneORator: An Efficient Method for the Systematic Mutagenesis of Entire Genes. *Methods in Molecular Biology*, **2022**, 111-122 | 1.4 | |
| 397 | In conversation with Nigel Scrutton. *FEBS Journal*, **2021**, 288, 1728-1733 | 5.7 | |
| 396 | Photocatalysis as the 'master switch' of photomorphogenesis in early plant development. *Nature Plants*, **2021**, 7, 268-276 | 11.5 | 6 |
| 395 | A plasmid toolset for CRISPR-mediated genome editing and CRISPRi gene regulation in Escherichia coli. *Microbial Biotechnology*, **2021**, 14, 1120-1129 | 6.3 | 2 |
| 394 | Isopentenol Utilization Pathway for the Production of Linalool in Escherichia coli Using an Improved Bacterial Linalool/Nerolidol Synthase. *ChemBioChem*, **2021**, 22, 2325-2334 | 3.8 | 9 |
| 393 | A guide to time-resolved structural analysis of light-activated proteins. *FEBS Journal*, **2021**, | 5.7 | 8 |
| 392 | Consolidated Bioprocessing: Synthetic Biology Routes to Fuels and Fine Chemicals. *Microorganisms*, **2021**, 9, | 4.9 | 5 |
| 391 | Prototyping of microbial chassis for the biomanufacturing of high-value chemical targets. *Biochemical Society Transactions*, **2021**, 49, 1055-1063 | 5.1 | 1 |
| 390 | Flavoprotein-dependent Bioreduction **2021**, 201-223 | | |
| 389 | 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 | 8.8 | 4 |
| 388 | Advantages of brain penetrating inhibitors of kynurenine-3-monooxygenase for treatment of neurodegenerative diseases. *Archives of Biochemistry and Biophysics*, **2021**, 697, 108702 | 4.1 | 4 |
| 387 | Dual role of the active site 'lid' regions of protochlorophyllide oxidoreductase in photocatalysis and plant development. *FEBS Journal*, **2021**, 288, 175-189 | 5.7 | 4 |
| 386 | Enzyme immobilisation on wood-derived cellulose scaffolds via carbohydrate-binding module fusion constructs. *Green Chemistry*, **2021**, 23, 4716-4732 | 10 | 5 |
| 385 | Alternative metabolic pathways and strategies to high-titre terpenoid production in. *Natural Product Reports*, **2021**, | 15.1 | 7 |

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| 384 | A Biological Route to Conjugated Alkenes: Microbial Production of Hepta-1,3,5-triene. *ACS Synthetic Biology*, **2021**, 10, 228-235 | 5.7 | 3 |
| 383 | Design and fabrication of recombinant reflectin-based multilayer reflectors: bio-design engineering and photoisomerism induced wavelength modulation. *Scientific Reports*, **2021**, 11, 14580 | 4.9 | 3 |
| 382 | The evolving art of creating genetic diversity: From directed evolution to synthetic biology. *Biotechnology Advances*, **2021**, 50, 107762 | 17.8 | 5 |
| 381 | Blood, sweat, and tears: extraterrestrial regolith biocomposites with binders. *Materials Today Bio*, **2021**, 12, 100136 | 9.9 | 2 |
| 380 | Flavin oxidation state impacts on nitrofuran antibiotic binding orientation in nitroreductases. *Biochemical Journal*, **2021**, 478, 3423-3428 | 3.8 | |
| 379 | Quantum Biology: An Update and Perspective. *Quantum Reports*, **2021**, 3, 80-126 | 2.1 | 26 |
| 378 | Insights into the H O -driven catalytic mechanism of fungal lytic polysaccharide monooxygenases. *FEBS Journal*, **2021**, 288, 4115-4128 | 5.7 | 18 |
| 377 | Combinatorial use of environmental stresses and genetic engineering to increase ethanol titres in cyanobacteria.. *Biotechnology for Biofuels*, **2021**, 14, 240 | 7.8 | 1 |
| 376 | Streamlining Natural Products Biomanufacturing With Omics and Machine Learning Driven Microbial Engineering. *Frontiers in Bioengineering and Biotechnology*, **2020**, 8, 608918 | 5.8 | 3 |
| 375 | Exploring novel bacterial terpene synthases. *PLoS ONE*, **2020**, 15, e0232220 | 3.7 | 9 |
| 374 | Photochemical Mechanism of Light-Driven Fatty Acid Photodecarboxylase. *ACS Catalysis*, **2020**, 10, 6691-6696 | 13.7 | 37 |
| 373 | Low carbon strategies for sustainable bio-alkane gas production and renewable energy. *Energy and Environmental Science*, **2020**, 13, 1818-1831 | 35.4 | 36 |
| 372 | Active Intermediates in Copper Nitrite Reductase Reactions Probed by a Cryotrapping-Electron Paramagnetic Resonance Approach. *Angewandte Chemie*, **2020**, 132, 14040-14044 | 3.6 | 4 |
| 371 | Radical-based photoinactivation of fatty acid photodecarboxylases. *Analytical Biochemistry*, **2020**, 600, 113749 | 3.1 | 21 |
| 370 | Ultrafast Vibrational Energy Transfer between Protein and Cofactor in a Flavoenzyme. *Journal of Physical Chemistry B*, **2020**, 124, 5163-5168 | 3.4 | 5 |
| 369 | Hierarchically Porous Silk/Activated-Carbon Composite Fibres for Adsorption and Repellence of Volatile Organic Compounds. *Molecules*, **2020**, 25, | 4.8 | 2 |
| 368 | The effect of terminal globular domains on the response of recombinant mini-spidroins to fiber spinning triggers. *Scientific Reports*, **2020**, 10, 10671 | 4.9 | 8 |
| 367 | Active Intermediates in Copper Nitrite Reductase Reactions Probed by a Cryotrapping-Electron Paramagnetic Resonance Approach. *Angewandte Chemie - International Edition*, **2020**, 59, 13936-13940 | 16.4 | 7 |

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|---|---|---|---|
| 366 | Protein Conformational Change Is Essential for Reductive Activation of Lytic Polysaccharide Monooxygenase by Cellobiose Dehydrogenase. *ACS Catalysis*, **2020**, 10, 4842-4853 | 13.1 | 13 |
| 365 | Rapid prototyping of microbial production strains for the biomanufacture of potential materials monomers. *Metabolic Engineering*, **2020**, 60, 168-182 | 9.7 | 25 |
| 364 | Taming the Reactivity of Monoterpene Synthases To Guide Regioselective Product Hydroxylation. *ChemBioChem*, **2020**, 21, 985-990 | 3.8 | 8 |
| 363 | Structure of the Cannabis sativa olivetol-producing enzyme reveals cyclization plasticity in type III polyketide synthases. *FEBS Journal*, **2020**, 287, 1511-1524 | 5.7 | 8 |
| 362 | Techno-economic assessment of microbial limonene production. *Bioresource Technology*, **2020**, 300, 122666 | 11 | 21 |
| 361 | Thermal, electrochemical and photochemical reactions involving catalytically versatile ene reductase enzymes. *The Enzymes*, **2020**, 47, 491-515 | 2.3 | 1 |
| 360 | Non-covalent protein-based adhesives for transparent substrates-bovine serum albumin vs. recombinant spider silk. *Materials Today Bio*, **2020**, 7, 100068 | 9.9 | 11 |
| 359 | Engineering nature for gaseous hydrocarbon production. *Microbial Cell Factories*, **2020**, 19, 209 | 6.4 | 5 |
| 358 | design and automated learning to boost next-generation smart biomanufacturing. *Synthetic Biology*, **2020**, 5, ysaa020 | 3.3 | 12 |
| 357 | Photocycle of Cyanobacteriochrome TePixJ. *Biochemistry*, **2020**, 59, 2909-2915 | 3.2 | 4 |
| 356 | Renewable and tuneable bio-LPG blends derived from amino acids. *Biotechnology for Biofuels*, **2020**, 13, 125 | 7.8 | 9 |
| 355 | Production of the Fragrance Geraniol in Peroxisomes of a Product-Tolerant Baker's Yeast. *Frontiers in Bioengineering and Biotechnology*, **2020**, 8, 582052 | 5.8 | 6 |
| 354 | Promoter engineering for microbial bio-alkane gas production. *Synthetic Biology*, **2020**, 5, ysaa022 | 3.3 | 5 |
| 353 | Engineering towards production of gatekeeper (2)-flavanones: naringenin, pinocembrin, eriodictyol and homoeriodictyol. *Synthetic Biology*, **2020**, 5, ysaa012 | 3.3 | 17 |
| 352 | Exploiting Single Domain Antibodies as Regulatory Parts to Modulate Monoterpenoid Production in. *ACS Synthetic Biology*, **2020**, 9, 2828-2839 | 5.7 | 2 |
| 351 | 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 | 16.4 | 25 |
| 350 | Convergence of theory and experiment on the role of preorganization, quantum tunneling and enzyme motions into flavoenzyme-catalyzed hydride transfer. *ACS Catalysis*, **2019**, 7, 3190-3198 | 13.1 | 25 |
| 349 | An automated pipeline for the screening of diverse monoterpene synthase libraries. *Scientific Reports*, **2019**, 9, 11936 | 4.9 | 12 |

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| 348 | Graphene-aramid nanocomposite fibres via superacid co-processing. *Chemical Communications*, **2019**, 55, 11703-11706 | 5.8 | 4 |
| 347 | Tripping the light fantastic in membrane redox biology: linking dynamic structures to function in ER electron transfer chains. *FEBS Journal*, **2019**, 286, 2004-2017 | 5.7 | 9 |
| 346 | Unexpected Roles of a Tether Harboring a Tyrosine Gatekeeper Residue in Modular Nitrite Reductase Catalysis. *ACS Catalysis*, **2019**, 9, 6087-6099 | 13.1 | 11 |
| 345 | Building a global alliance of biofoundries. *Nature Communications*, **2019**, 10, 2040 | 17.4 | 91 |
| 344 | Photochemical Spin Dynamics of the Vitamin B Derivative, Methylcobalamin. *Journal of Physical Chemistry B*, **2019**, 123, 4663-4672 | 3.4 | 6 |
| 343 | Solvent-slaved protein motions accompany proton coupled electron transfer reactions catalysed by copper nitrite reductase. *Chemical Communications*, **2019**, 55, 5863-5866 | 5.8 | 11 |
| 342 | Selectivity through discriminatory induced fit enables switching of NAD(P)H coenzyme specificity in Old Yellow Enzyme ene-reductases. *FEBS Journal*, **2019**, 286, 3117-3128 | 5.7 | 4 |
| 341 | Synthetic biology for fibres, adhesives and active camouflage materials in protection and aerospace. *MRS Communications*, **2019**, 9, 486-504 | 2.7 | 13 |
| 340 | SelProm: A Queryable and Predictive Expression Vector Selection Tool for. *ACS Synthetic Biology*, **2019**, 8, 1478-1483 | 5.7 | 26 |
| 339 | Equatorial Active Site Compaction and Electrostatic Reorganization in Catechol--methyltransferase. *ACS Catalysis*, **2019**, 9, 4394-4401 | 13.1 | 13 |
| 338 | Chemo-enzymatic routes towards the synthesis of bio-based monomers and polymers. *Molecular Catalysis*, **2019**, 467, 95-110 | 3.3 | 20 |
| 337 | Bio-derived Production of Cinnamyl Alcohol via a Three Step Biocatalytic Cascade and Metabolic Engineering. *Green Chemistry*, **2019**, 20, 658-663 | 10 | 24 |
| 336 | Discovery, Characterisation, Engineering and Applications of Ene Reductases for Industrial Biocatalysis. *ACS Catalysis*, **2019**, 8, 3532-3549 | 13.1 | 124 |
| 335 | Experiment and Simulation Reveal How Mutations in Functional Plasticity Regions Guide Plant Monoterpene Synthase Product Outcome. *ACS Catalysis*, **2019**, 8, 3780-3791 | 13.1 | 20 |
| 334 | Isotopically labeled flavoenzymes and their uses in probing reaction mechanisms. *Methods in Enzymology*, **2019**, 620, 145-166 | 1.7 | 2 |
| 333 | A brain-permeable inhibitor of the neurodegenerative disease target kynurenine 3-monooxygenase prevents accumulation of neurotoxic metabolites. *Communications Biology*, **2019**, 2, 271 | 6.7 | 27 |
| 332 | Highly multiplexed, fast and accurate nanopore sequencing for verification of synthetic DNA constructs and sequence libraries. *Synthetic Biology*, **2019**, 4, ysz025 | 3.3 | 14 |
| 331 | Observation of the g mechanism resulting from the ultrafast spin dynamics that follow the photolysis of coenzyme B. *Journal of Chemical Physics*, **2019**, 151, 201102 | 3.9 | 3 |

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| 330 | Structural basis for enzymatic photocatalysis in chlorophyll biosynthesis. *Nature*, **2019**, 574, 722-725 | 50.4 | 38 |
| 329 | Machine Learning of Designed Translational Control Allows Predictive Pathway Optimization in Escherichia coli. *ACS Synthetic Biology*, **2019**, 8, 127-136 | 5.7 | 53 |
| 328 | Light-induced structural changes in a full-length cyanobacterial phytochrome probed by time-resolved X-ray scattering. *Communications Biology*, **2019**, 2, 1 | 6.7 | 196 |
| 327 | From Bugs to Bioplastics: Total (+)-Dihydrocarvide Biosynthesis by Engineered Escherichia coli. *ChemBioChem*, **2019**, 20, 785-792 | 3.8 | 10 |
| 326 | C3 and C6 Modification-Specific OYE Biotransformations of Synthetic Carvones and Sequential BVMO Chemoenzymatic Synthesis of Chiral Caprolactones. *Chemistry - A European Journal*, **2019**, 25, 2983-2988 | 4.8 | 10 |
| 325 | Selective cellular imaging with lanthanide-based upconversion nanoparticles. *Journal of Biophotonics*, **2019**, 12, e201800256 | 3.1 | 10 |
| 324 | What are the signatures of tunnelling in enzyme-catalysed reactions?. *Faraday Discussions*, **2019**, 221, 367-378 | 3.6 | 5 |
| 323 | PartsGenie: an integrated tool for optimizing and sharing synthetic biology parts. *Bioinformatics*, **2018**, 34, 2327-2329 | 7.2 | 16 |
| 322 | A living foundry for Synthetic Biological Materials: A synthetic biology roadmap to new advanced materials. *Synthetic and Systems Biotechnology*, **2018**, 3, 105-112 | 4.2 | 44 |
| 321 | Selenzyme: enzyme selection tool for pathway design. *Bioinformatics*, **2018**, 34, 2153-2154 | 7.2 | 41 |
| 320 | Stepwise Hydride Transfer in a Biological System: Insights into the Reaction Mechanism of the Light-Dependent Protochlorophyllide Oxidoreductase. *Angewandte Chemie*, **2018**, 130, 2712-2716 | 3.6 | 4 |
| 319 | Stepwise Hydride Transfer in a Biological System: Insights into the Reaction Mechanism of the Light-Dependent Protochlorophyllide Oxidoreductase. *Angewandte Chemie - International Edition*, **2018**, 57, 2682-2686 | 16.4 | 22 |
| 318 | Engineering the "Missing Link" in Biosynthetic (-)-Menthol Production: Bacterial Isopulegone Isomerase. *ACS Catalysis*, **2018**, 8, 2012-2020 | 13.1 | 14 |
| 317 | Photochemical Mechanism of an Atypical Algal Phytochrome. *ChemBioChem*, **2018**, 19, 1036-1043 | 3.8 | 9 |
| 316 | Biocatalytic Routes to Lactone Monomers for Polymer Production. *Biochemistry*, **2018**, 57, 1997-2008 | 3.2 | 28 |
| 315 | Retooling microorganisms for the fermentative production of alcohols. *Current Opinion in Biotechnology*, **2018**, 50, 1-10 | 11.4 | 12 |
| 314 | Trapping methods for probing functional intermediates in nitric oxide synthases and related enzymes. *Frontiers in Bioscience - Landmark*, **2018**, 23, 1874-1888 | 2.8 | 2 |
| 313 | Chemoenzymatic Synthesis of the Intermediates in the Peppermint Monoterpenoid Biosynthetic Pathway. *Journal of Natural Products*, **2018**, 81, 1546-1552 | 4.9 | 7 |

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| 312 | A biocatalytic method for the chemoselective aerobic oxidation of aldehydes to carboxylic acids. *Green Chemistry*, **2018**, 20, 3931-3943 | 10 | 23 |
| 311 | An automated Design-Build-Test-Learn pipeline for enhanced microbial production of fine chemicals. *Communications Biology*, **2018**, 1, 66 | 6.7 | 97 |
| 310 | H, N and C backbone resonance assignments of pentaerythritol tetranitrate reductase from Enterobacter cloacae PB2. *Biomolecular NMR Assignments*, **2018**, 12, 79-83 | 0.7 | 4 |
| 309 | The sacrificial inactivation of the blue-light photosensor cryptochrome from Drosophila melanogaster. *Physical Chemistry Chemical Physics*, **2018**, 20, 28767-28776 | 3.6 | 13 |
| 308 | A Toolbox for Diverse Oxyfunctionalisation of Monoterpenes. *Scientific Reports*, **2018**, 8, 14396 | 4.9 | 17 |
| 307 | 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. *ACS Catalysis*, **2018**, 8, 11589-11599 | 13.1 | 10 |
| 306 | Multifragment DNA Assembly of Biochemical Pathways via Automated Ligase Cycling Reaction. *Methods in Enzymology*, **2018**, 608, 369-392 | 1.7 | 9 |
| 305 | Genome Editing for the Production of Natural Products in Escherichia coli. *Advanced Biology*, **2018**, 2, 1800056 | 3.5 | 1 |
| 304 | Direct Evidence of an Excited-State Triplet Species upon Photoactivation of the Chlorophyll Precursor Protochlorophyllide. *Journal of Physical Chemistry Letters*, **2017**, 8, 1219-1223 | 6.4 | 7 |
| 303 | Excited-State Properties of Protochlorophyllide Analogues and Implications for Light-Driven Synthesis of Chlorophyll. *Journal of Physical Chemistry B*, **2017**, 121, 1312-1320 | 3.4 | 6 |
| 302 | Structural insights into the ene-reductase synthesis of profens. *Organic and Biomolecular Chemistry*, **2017**, 15, 4440-4448 | 3.9 | 15 |
| 301 | Liver microsomal lipid enhances the activity and redox coupling of colocalized cytochrome P450 reductase-cytochrome P450 3A4 in nanodiscs. *FEBS Journal*, **2017**, 284, 2302-2319 | 5.7 | 12 |
| 300 | Vertebrate Cryptochromes are Vestigial Flavoproteins. *Scientific Reports*, **2017**, 7, 44906 | 4.9 | 56 |
| 299 | H, N, C 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 | 0.7 | 1 |
| 298 | biochem4j: Integrated and extensible biochemical knowledge through graph databases. *PLoS ONE*, **2017**, 12, e0179130 | 3.7 | 18 |
| 297 | Enzymes make light work of hydrocarbon production. *Science*, **2017**, 357, 872-873 | 33.3 | 12 |
| 296 | Speeding up enzyme engineering computationally. *IUCrJ*, **2017**, 4, 5-6 | 4.7 | 3 |
| 295 | 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 | 3.4 | 12 |

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|---|---|---|---|
| 294 | Structures of carboxylic acid reductase reveal domain dynamics underlying catalysis. *Nature Chemical Biology*, **2017**, 13, 975-981 | 11.7 | 80 |
| 293 | Structural Basis of Catalysis in the Bacterial Monoterpene Synthases Linalool Synthase and 1,8-Cineole Synthase. *ACS Catalysis*, **2017**, 7, 6268-6282 | 13.1 | 31 |
| 292 | Engineering proximal distal heme-NO coordination dinitrosyl dynamics: implications for NO sensor design. *Chemical Science*, **2017**, 8, 1986-1994 | 9.4 | 11 |
| 291 | A perspective on conformational control of electron transfer in nitric oxide synthases. *Nitric Oxide - Biology and Chemistry*, **2017**, 63, 61-67 | 5 | 16 |
| 290 | Donor-Acceptor Distance Sampling Enhances the Performance of "Better than Nature" Nicotinamide Coenzyme Biomimetics. *Journal of the American Chemical Society*, **2016**, 138, 11089-92 | 16.4 | 30 |
| 289 | Pinpointing a Mechanistic Switch Between Ketoreduction and "Ene" Reduction in Short-Chain Dehydrogenases/Reductases. *Angewandte Chemie - International Edition*, **2016**, 55, 9596-600 | 16.4 | 16 |
| 288 | Pinpointing a Mechanistic Switch Between Ketoreduction and "Ene" Reduction in Short-Chain Dehydrogenases/Reductases. *Angewandte Chemie*, **2016**, 128, 9748-9752 | 3.6 | 7 |
| 287 | An oxidative N-demethylase reveals PAS transition from ubiquitous sensor to enzyme. *Nature*, **2016**, 539, 593-597 | 50.4 | 15 |
| 286 | Mass spectrometry locates local and allosteric conformational changes that occur on cofactor binding. *Nature Communications*, **2016**, 7, 12163 | 17.4 | 45 |
| 285 | Magnetic Fields Modulate Blue-Light-Dependent Regulation of Neuronal Firing by Cryptochrome. *Journal of Neuroscience*, **2016**, 36, 10742-10749 | 6.6 | 30 |
| 284 | Towards synthesis of monoterpenes and derivatives using synthetic biology. *Current Opinion in Chemical Biology*, **2016**, 34, 37-43 | 9.7 | 66 |
| 283 | 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 | 8.1 | 49 |
| 282 | 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, 236-43 | 6.7 | 18 |
| 281 | Ene-reductases and their Applications **2016**, 473-488 | | 5 |
| 280 | Better than Nature: Nicotinamide Biomimetics That Outperform Natural Coenzymes. *Journal of the American Chemical Society*, **2016**, 138, 1033-9 | 16.4 | 108 |
| 279 | Light-driven biocatalytic reduction of unsaturated compounds by ene reductases employing transition metal complexes as photosensitizers. *Catalysis Science and Technology*, **2016**, 6, 169-177 | 5.5 | 43 |
| 278 | 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 | 13.1 | 13 |
| 277 | 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, 903-13 | 3.2 | 12 |

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| 276 | SYNBIOCHEM-a SynBio foundry for the biosynthesis and sustainable production of fine and speciality chemicals. *Biochemical Society Transactions*, **2016**, 44, 675-7 | 5.1 | 5 |
| 275 | Natural Product Biosynthesis in Escherichia coli: Mentha Monoterpenoids. *Methods in Enzymology*, **2016**, 575, 247-70 | 1.7 | |
| 274 | Untangling Heavy Protein and Cofactor Isotope Effects on Enzyme-Catalyzed Hydride Transfer. *Journal of the American Chemical Society*, **2016**, 138, 13693-13699 | 16.4 | 24 |
| 273 | A 'Plug and Play' Platform for the Production of Diverse Monoterpene Hydrocarbon Scaffolds in. *ChemistrySelect*, **2016**, 1, 1893-1896 | 1.8 | 32 |
| 272 | UbiX is a flavin prenyltransferase required for bacterial ubiquinone biosynthesis. *Nature*, **2015**, 522, 502-6 | 50.4 | 136 |
| 271 | New cofactor supports α,β-unsaturated acid decarboxylation via 1,3-dipolar cycloaddition. *Nature*, **2015**, 522, 497-501 | 50.4 | 156 |
| 270 | Crystal structure of [1,1'''-bis-(pyrimidin-2-yl)-4,4':2',2'':4'',4'''-quaterpyridine-1,1'''-diium-κ2 N (1'),N (1'')]bis-[2-(pyridin-2-yl)phenyl-κ2 N,C (1)]iridium(III) tris-(hexa-fluorido-phosphate) aceto-nitrile tris-olvate. *Acta Crystallographica Section E: Crystallographic Communications*, **2015**, 71, 879-82 | 0.7 | 1 |
| 269 | A microbial platform for renewable propane synthesis based on a fermentative butanol pathway. *Biotechnology for Biofuels*, **2015**, 8, 61 | 7.8 | 44 |
| 268 | Nuclear quantum tunnelling in enzymatic reactions--an enzymologist's perspective. *Physical Chemistry Chemical Physics*, **2015**, 17, 30775-82 | 3.6 | 14 |
| 267 | Syntheses and electronic and optical properties of complexes of the bis(2,2?-bipyrazyl)ruthenium unit. *Polyhedron*, **2015**, 96, 57-65 | 2.7 | 11 |
| 266 | Conversion of alcohols to enantiopure amines through dual-enzyme hydrogen-borrowing cascades. *Science*, **2015**, 349, 1525-9 | 33.3 | 268 |
| 265 | The photochemical mechanism of a B12-dependent photoreceptor protein. *Nature Communications* , **2015**, 6, 7907 | 17.4 | 69 |
| 264 | Glutamate 338 is an electrostatic facilitator of C-Co bond breakage in a dynamic/electrostatic model of catalysis by ornithine aminomutase. *FEBS Journal*, **2015**, 282, 1242-55 | 5.7 | 1 |
| 263 | Structure and Mechanism of a Viral Collagen Prolyl Hydroxylase. *Biochemistry*, **2015**, 54, 6093-105 | 3.2 | 13 |
| 262 | Magnetic field effects as a result of the radical pair mechanism are unlikely in redox enzymes. *Journal of the Royal Society Interface*, **2015**, 12, | 4.1 | 17 |
| 261 | Systematic methodology for the development of biocatalytic hydrogen-borrowing cascades: application to the synthesis of chiral β-substituted carboxylic acids from β-substituted α,β-unsaturated aldehydes. *Organic and Biomolecular Chemistry*, **2015**, 13, 223-33 | 3.9 | 41 |
| 260 | Probing reversible chemistry in coenzyme B12 -dependent ethanolamine ammonia lyase with kinetic isotope effects. *Chemistry - A European Journal*, **2015**, 21, 8826-31 | 4.8 | 5 |
| 259 | Towards the free energy landscape for catalysis in mammalian nitric oxide synthases. *FEBS Journal*, **2015**, 282, 3016-29 | 5.7 | 19 |

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| 258 | Professor Richard Nelson Perham. *FEBS Journal*, **2015**, 282, 1349-51 | 5.7 | 1 |
| 257 | Real-time analysis of conformational control in electron transfer reactions of human cytochrome P450 reductase with cytochrome c. *FEBS Journal*, **2015**, 282, 4357-75 | 5.7 | 20 |
| 256 | Ordered multilayers of cytochrome P450 reductase adsorbed at Au(110)/phosphate buffer interfaces. *Physica Status Solidi (B): Basic Research*, **2015**, 252, 181-186 | 1.3 | 1 |
| 255 | Enzymatic Menthol Production: One-Pot Approach Using Engineered Escherichia coli. *ACS Synthetic Biology*, **2015**, 4, 1112-23 | 5.7 | 50 |
| 254 | Catalytic mechanism of cofactor-free dioxygenases and how they circumvent spin-forbidden oxygenation of their substrates. *Journal of the American Chemical Society*, **2015**, 137, 7474-87 | 16.4 | 57 |
| 253 | Does the pressure dependence of kinetic isotope effects report usefully on dynamics in enzyme H-transfer reactions?. *FEBS Journal*, **2015**, 282, 3243-55 | 5.7 | 7 |
| 252 | Excited-State Charge Separation in the Photochemical Mechanism of the Light-Driven Enzyme Protochlorophyllide Oxidoreductase. *Angewandte Chemie*, **2015**, 127, 1532-1535 | 3.6 | 7 |
| 251 | Excited-state charge separation in the photochemical mechanism of the light-driven enzyme protochlorophyllide oxidoreductase. *Angewandte Chemie - International Edition*, **2015**, 54, 1512-5 | 16.4 | 33 |
| 250 | Professor Richard Nelson Perham, FRS, FMedSci. *Biochemist*, **2015**, 37, 58-59 | 0.5 | |
| 249 | Cryptochrome-dependent magnetic field effect on seizure response in Drosophila larvae. *Scientific Reports*, **2014**, 4, 5799 | 4.9 | 38 |
| 248 | Origin of the proton-transfer step in the cofactor-free (1H)-3-hydroxy-4-oxoquinaldine 2,4-dioxygenase: effect of the basicity of an active site His residue. *Journal of Biological Chemistry*, **2014**, 289, 8620-32 | 5.4 | 25 |
| 247 | New developments in 'ene'-reductase catalysed biological hydrogenations. *Current Opinion in Chemical Biology*, **2014**, 19, 107-15 | 9.7 | 106 |
| 246 | Proton tunnelling and promoting vibrations during the oxidation of ascorbate by ferricyanide?. *Physical Chemistry Chemical Physics*, **2014**, 16, 2256-9 | 3.6 | 10 |
| 245 | 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, 241-53 | 16.4 | 55 |
| 244 | Alternative Hydride Sources for Ene-Reductases: Current Trends. *ChemCatChem*, **2014**, 6, 951-954 | 5.2 | 32 |
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