Helen S Toogood

List of Publications by Year
in descending order

60 papers	2,256 citations	201674 27 h-index	223800 46 g-index
65 all docs	65 docs citations	65 times ranked	2138 citing authors

#	Article	IF	Citations
1	Bioproduction of Linalool From Paper Mill Waste. Frontiers in Bioengineering and Biotechnology, 2022, 10, .	4.1	3
2	Consolidated Bioprocessing: Synthetic Biology Routes to Fuels and Fine Chemicals. Microorganisms, 2021, 9, 1079.	3.6	19
3	Flavin oxidation state impacts on nitrofuran antibiotic binding orientation in nitroreductases. Biochemical Journal, 2021, 478, 3423-3428.	3.7	0
4	Electron Transfer Flavoproteins. , 2021, , 1-6.		0
5	Combinatorial use of environmental stresses and genetic engineering to increase ethanol titres in cyanobacteria. Biotechnology for Biofuels, 2021, 14, 240.	6.2	10
6	Structure of the <i>CannabisÂsativa</i> olivetolâ€•producing enzyme reveals cyclization plasticity in type III polyketide synthases. FEBS Journal, 2020, 287, 1511-1524.	4.7	18
7	Thermal, electrochemical and photochemical reactions involving catalytically versatile ene reductase enzymes. The Enzymes, 2020, 47, 491-515.	1.7	2
8	Engineering nature for gaseous hydrocarbon production. Microbial Cell Factories, 2020, 19, 209.	4.0	9
9	Renewable and tuneable bio-LPG blends derived from amino acids. Biotechnology for Biofuels, 2020, 13, 125.	6.2	19
10	Promoter engineering for microbial bio-alkane gas production. Synthetic Biology, 2020, 5, ysaa022.	2.2	6
11	Low carbon strategies for sustainable bio-alkane gas production and renewable energy. Energy and Environmental Science, 2020, 13, 1818-1831.	30.8	77
12	Machine Learning of Designed Translational Control Allows Predictive Pathway Optimization in <i>Escherichia coli</i>. ACS Synthetic Biology, 2019, 8, 127-136.	3.8	88
13	From Bugs to Bioplastics: Total (+)â€•Dihydrocarvide Biosynthesis by Engineered <i>Escherichia coli</i>. ChemBioChem, 2019, 20, 785-792.	2.6	13
14	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.	3.3	11
15	Engineering the â€œMissing Linkâ€• in Biosynthetic (â^')-Menthol Production: Bacterial Isopulegone Isomerase. ACS Catalysis, 2018, 8, 2012-2020.	11.2	20
16	Biocatalytic Routes to Lactone Monomers for Polymer Production. Biochemistry, 2018, 57, 1997-2008.	2.5	33
17	Discovery, Characterization, Engineering, and Applications of Ene-Reductases for Industrial Biocatalysis. ACS Catalysis, 2018, 8, 3532-3549.	11.2	195
18	Retooling microorganisms for the fermentative production of alcohols. Current Opinion in Biotechnology, 2018, 50, 1-10.	6.6	17

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19	Chemoenzymatic Synthesis of the Intermediates in the Peppermint Monoterpenoid Biosynthetic Pathway. Journal of Natural Products, 2018, 81, 1546-1552.	3.0	13
20	Natural Product Biosynthesis in Escherichia coli. Methods in Enzymology, 2016, 575, 247-270.	1.0	1
21	A â€˜Plug and Playâ€™ Platform for the Production of Diverse Monoterpene Hydrocarbon Scaffolds in <i>Escherichia coli</i>.. ChemistrySelect, 2016, 1, 1893-1896.	1.5	42
22	Pinpointing a Mechanistic Switch Between Ketoreduction and â€œEneâ€• Reduction in Shortâ€Chain Dehydrogenases/Reductases. Angewandte Chemie - International Edition, 2016, 55, 9596-9600.	13.8	21
23	Pinpointing a Mechanistic Switch Between Ketoreduction and â€œEneâ€• Reduction in Shortâ€Chain Dehydrogenases/Reductases. Angewandte Chemie, 2016, 128, 9748-9752.	2.0	9
24	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.	4.1	48
25	Enzymatic Menthol Production: One-Pot Approach Using Engineered <i>Escherichia coli</i>. ACS Synthetic Biology, 2015, 4, 1112-1123.	3.8	61
26	Nanofibrillar Peptide Hydrogels for the Immobilization of Biocatalysts for Chemical Transformations. Macromolecular Rapid Communications, 2014, 35, 868-874.	3.9	16
27	New developments in â€˜eneâ€™-reductase catalysed biological hydrogenations. Current Opinion in Chemical Biology, 2014, 19, 107-115.	6.1	123
28	Alternative Hydride Sources for Eneâ€Reductases: Current Trends. ChemCatChem, 2014, 6, 951-954.	3.7	38
29	Biocatalytic Asymmetric Alkene Reduction: Crystal Structure and Characterization of a Double Bond Reductase from <i>Nicotiana tabacum</i>. ACS Catalysis, 2013, 3, 370-379.	11.2	59
30	Bacillus Strain AK.1 Protease. , 2013, , 3177-3179.		1
31	Enzyme engineering toolbox â€“ a â€˜catalystâ€™ for change. Catalysis Science and Technology, 2013, 3, 2182.	4.1	19
32	Thermus Strain Rt41A Protease. , 2013, , 3171-3174.		1
33	A surprising observation that oxygen can affect the product enantiopurity of an enzymeâ€catalysed reaction. FEBS Journal, 2012, 279, 4160-4171.	4.7	10
34	7.11 Reduction: Enantioselective Bioreduction of Câ€“C Double Bonds. , 2012, , 216-255.		11
35	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.	4.1	21
36	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.	2.6	13

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37	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.	2.6	65
38	Biocatalysis with Thermostable Enzymes: Structure and Properties of a Thermophilic â€˜eneâ€™â€Reductase related to Old Yellow Enzyme. ChemBioChem, 2010, 11, 197-207.	2.6	110
39	Focused Directed Evolution of Pentaerythritol Tetranitrate Reductase by Using Automated Anaerobic Kinetic Screening of Siteâ€Saturated Libraries. ChemBioChem, 2010, 11, 2433-2447.	2.6	47
40	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.	2.6	0
41	Asymmetric Reduction of Activated Alkenes by Pentaerythritol Tetranitrate Reductase: Specificity and Control of Stereochemical Outcome by Reaction Optimisation. Advanced Synthesis and Catalysis, 2009, 351, 2976-2990.	4.3	113
42	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.	4.3	58
43	Novel haem co-ordination variants of flavocytochrome P450 BM3. Biochemical Journal, 2009, 417, 65-80.	3.7	32
44	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.	4.3	84
45	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.	4.7	24
46	Structural and Spectroscopic Characterization of P450 BM3 Mutants with Unprecedented P450 Heme Iron Ligand Sets. Journal of Biological Chemistry, 2007, 282, 564-572.	3.4	64
47	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.	2.5	39
48	Crystal structure and solution characterization of the activation domain of human methionine synthase. FEBS Journal, 2007, 274, 738-750.	4.7	16
49	Dynamics driving functionâ€ƒâˆ’â€ƒnew insights from electron transferring flavoproteins and partner complexes. FEBS Journal, 2007, 274, 5481-5504.	4.7	105
50	Stabilization of Non-productive Conformations Underpins Rapid Electron Transfer to Electron-transferring Flavoprotein. Journal of Biological Chemistry, 2005, 280, 30361-30366.	3.4	32
51	Aspartyl-tRNA Synthetase Requires a Conserved Proline in the Anticodon-binding Loop for tRNAAsn Recognition in Vivo. Journal of Biological Chemistry, 2005, 280, 20638-20641.	3.4	20
52	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.	3.4	82
53	The use of a thermostable signature amidase in the resolution of the bicyclic synthon (rac)-Î³-lactam. Tetrahedron, 2004, 60, 711-716.	1.9	51
54	Application of thermophilic enzymes in commercial biotransformation processes. Biochemical Society Transactions, 2004, 32, 290-292.	3.4	41

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55	Expanding tRNA recognition of a tRNA synthetase by a single amino acid change. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 5676-5681.	7.1	21
56	Evolutionary Divergence of the Archaeal Aspartyl-tRNA Synthetases into Discriminating and Nondiscriminating Forms. Journal of Biological Chemistry, 2002, 277, 37184-37190.	3.4	32
57	Cysteine Activation Is an Inherent in Vitro Property of Prolyl-tRNA Synthetases. Journal of Biological Chemistry, 2002, 277, 34743-34748.	3.4	61
58	Immobilisation of the Thermostable l -aminoacylase from Thermococcus litoralis to Generate a Reusable Industrial Biocatalyst. Biocatalysis and Biotransformation, 2002, 20, 241-249.	2.0	27
59	A thermostable L -aminoacylase from Thermococcus litoralis : cloning, overexpression, characterization, and applications in biotransformations. Extremophiles, 2002, 6, 111-122.	2.3	38
60	Purification and characterization of Ak.1 protease, a thermostable subtilisin with a disulphide bond in the substrate-binding cleft. Biochemical Journal, 2000, 350, 321-328.	3.7	21