

Helen S Toogood

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9477854/publications.pdf>

Version: 2024-02-01

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	Discovery, Characterization, Engineering, and Applications of Ene-Reductases for Industrial Biocatalysis. <i>ACS Catalysis</i> , 2018, 8, 3532-3549.	11.2	195
2	New developments in α,β -ene TM -reductase catalysed biological hydrogenations. <i>Current Opinion in Chemical Biology</i> , 2014, 19, 107-115.	6.1	123
3	Asymmetric Reduction of Activated Alkenes by Pentaerythritol Tetranitrate Reductase: Specificity and Control of Stereochemical Outcome by Reaction Optimisation. <i>Advanced Synthesis and Catalysis</i> , 2009, 351, 2976-2990.	4.3	113
4	Biocatalysis with Thermostable Enzymes: Structure and Properties of a Thermophilic α,β -ene TM -Reductase related to Old Yellow Enzyme. <i>ChemBioChem</i> , 2010, 11, 197-207.	2.6	110
5	Dynamics driving function TM new insights from electron transferring flavoproteins and partner complexes. <i>FEBS Journal</i> , 2007, 274, 5481-5504.	4.7	105
6	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
7	Structure TM -Based Insight into the Asymmetric Bioreduction of the C=C Double Bond of α,β -Unsaturated Nitroalkenes by Pentaerythritol Tetranitrate Reductase. <i>Advanced Synthesis and Catalysis</i> , 2008, 350, 2789-2803.	4.3	84
8	Extensive Domain Motion and Electron Transfer in the Human Electron Transferring Flavoprotein TM -Medium Chain Acyl-CoA Dehydrogenase Complex. <i>Journal of Biological Chemistry</i> , 2004, 279, 32904-32912.	3.4	82
9	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
10	A Site TM -Saturated Mutagenesis Study of Pentaerythritol Tetranitrate Reductase Reveals that Residues 181 and 184 Influence Ligand Binding, Stereochemistry and Reactivity. <i>ChemBioChem</i> , 2011, 12, 738-749.	2.6	65
11	Structural and Spectroscopic Characterization of P450 BM3 Mutants with Unprecedented P450 Heme Iron Ligand Sets. <i>Journal of Biological Chemistry</i> , 2007, 282, 564-572.	3.4	64
12	Cysteine Activation Is an Inherent in Vitro Property of Prolyl-tRNA Synthetases. <i>Journal of Biological Chemistry</i> , 2002, 277, 34743-34748.	3.4	61
13	Enzymatic Menthol Production: One-Pot Approach Using Engineered <i>Escherichia coli</i> . <i>ACS Synthetic Biology</i> , 2015, 4, 1112-1123.	3.8	61
14	Biocatalytic Asymmetric Alkene Reduction: Crystal Structure and Characterization of a Double Bond Reductase from <i>Nicotiana tabacum</i> . <i>ACS Catalysis</i> , 2013, 3, 370-379.	11.2	59
15	Activated α,β -Unsaturated Aldehydes as Substrate of Dihydroxyacetone Phosphate (DHAP) TM -Dependent Aldolases in the Context of a Multienzyme System. <i>Advanced Synthesis and Catalysis</i> , 2009, 351, 2967-2975.	4.3	58
16	The use of a thermostable signature amidase in the resolution of the bicyclic synthon (rac)- β -lactam. <i>Tetrahedron</i> , 2004, 60, 711-716.	1.9	51
17	Light-driven biocatalytic reduction of α,β -unsaturated compounds by ene reductases employing transition metal complexes as photosensitizers. <i>Catalysis Science and Technology</i> , 2016, 6, 169-177.	4.1	48
18	Focused Directed Evolution of Pentaerythritol Tetranitrate Reductase by Using Automated Anaerobic Kinetic Screening of Site TM -Saturated Libraries. <i>ChemBioChem</i> , 2010, 11, 2433-2447.	2.6	47

#	ARTICLE	IF	CITATIONS
19	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
20	Application of thermophilic enzymes in commercial biotransformation processes. <i>Biochemical Society Transactions</i> , 2004, 32, 290-292.	3.4	41
21	Mechanism of Coenzyme Binding to Human Methionine Synthase Reductase Revealed through the Crystal Structure of the FNR-like Module and Isothermal Titration Calorimetry. <i>Biochemistry</i> , 2007, 46, 11833-11844.	2.5	39
22	A thermostable L -aminoacylase from <i>Thermococcus litoralis</i> : cloning, overexpression, characterization, and applications in biotransformations. <i>Extremophiles</i> , 2002, 6, 111-122.	2.3	38
23	Alternative Hydride Sources for α -Reductases: Current Trends. <i>ChemCatChem</i> , 2014, 6, 951-954.	3.7	38
24	Biocatalytic Routes to Lactone Monomers for Polymer Production. <i>Biochemistry</i> , 2018, 57, 1997-2008.	2.5	33
25	Evolutionary Divergence of the Archaeal Aspartyl-tRNA Synthetases into Discriminating and Nondiscriminating Forms. <i>Journal of Biological Chemistry</i> , 2002, 277, 37184-37190.	3.4	32
26	Stabilization of Non-productive Conformations Underpins Rapid Electron Transfer to Electron-transferring Flavoprotein. <i>Journal of Biological Chemistry</i> , 2005, 280, 30361-30366.	3.4	32
27	Novel haem co-ordination variants of flavocytochrome P450 BM3. <i>Biochemical Journal</i> , 2009, 417, 65-80.	3.7	32
28	Immobilisation of the Thermostable L -aminoacylase from <i>Thermococcus litoralis</i> to Generate a Reusable Industrial Biocatalyst. <i>Biocatalysis and Biotransformation</i> , 2002, 20, 241-249.	2.0	27
29	Reduction of aliphatic nitroesters and α -nitramines by <i>Enterobacter cloacae</i> PB2 pentaerythritol tetranitrate reductase. <i>FEBS Journal</i> , 2008, 275, 6192-6203.	4.7	24
30	Purification and characterization of Ak.1 protease, a thermostable subtilisin with a disulphide bond in the substrate-binding cleft. <i>Biochemical Journal</i> , 2000, 350, 321-328.	3.7	21
31	Expanding tRNA recognition of a tRNA synthetase by a single amino acid change. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 5676-5681.	7.1	21
32	Active site modifications in pentaerythritol tetranitrate reductase can lead to improved product enantiopurity, decreased by-product formation and altered stereochemical outcome in reactions with β , β '-unsaturated nitroolefins. <i>Catalysis Science and Technology</i> , 2011, 1, 948.	4.1	21
33	Pinpointing a Mechanistic Switch Between Ketoreduction and α -Reduction in Short-Chain Dehydrogenases/Reductases. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 9596-9600.	13.8	21
34	Aspartyl-tRNA Synthetase Requires a Conserved Proline in the Anticodon-binding Loop for tRNA ^{Asn} Recognition in Vivo. <i>Journal of Biological Chemistry</i> , 2005, 280, 20638-20641.	3.4	20
35	Engineering the "Missing Link" in Biosynthetic (β)-Menthol Production: Bacterial Isopulegone Isomerase. <i>ACS Catalysis</i> , 2018, 8, 2012-2020.	11.2	20
36	Enzyme engineering toolbox "a catalyst"™ for change. <i>Catalysis Science and Technology</i> , 2013, 3, 2182.	4.1	19

#	ARTICLE	IF	CITATIONS
37	Renewable and tuneable bio-LPG blends derived from amino acids. <i>Biotechnology for Biofuels</i> , 2020, 13, 125.	6.2	19
38	Consolidated Bioprocessing: Synthetic Biology Routes to Fuels and Fine Chemicals. <i>Microorganisms</i> , 2021, 9, 1079.	3.6	19
39	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
40	Retooling microorganisms for the fermentative production of alcohols. <i>Current Opinion in Biotechnology</i> , 2018, 50, 1-10.	6.6	17
41	Crystal structure and solution characterization of the activation domain of human methionine synthase. <i>FEBS Journal</i> , 2007, 274, 738-750.	4.7	16
42	Nanofibrillar Peptide Hydrogels for the Immobilization of Biocatalysts for Chemical Transformations. <i>Macromolecular Rapid Communications</i> , 2014, 35, 868-874.	3.9	16
43	ELDOR Spectroscopy Reveals that Energy Landscapes in Human Methionine Synthase Reductase are Extensively Remodelled Following Ligand and Partner Protein Binding. <i>ChemBioChem</i> , 2011, 12, 863-867.	2.6	13
44	Chemoenzymatic Synthesis of the Intermediates in the Peppermint Monoterpenoid Biosynthetic Pathway. <i>Journal of Natural Products</i> , 2018, 81, 1546-1552.	3.0	13
45	From Bugs to Bioplastics: Total (+)-Dihydrocarvide Biosynthesis by Engineered <i>Escherichia coli</i> . <i>ChemBioChem</i> , 2019, 20, 785-792.	2.6	13
46	7.11 Reduction: Enantioselective Bioreduction of C=C Double Bonds. , 2012, , 216-255.		11
47	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
48	A surprising observation that oxygen can affect the product enantiopurity of an enzyme-catalysed reaction. <i>FEBS Journal</i> , 2012, 279, 4160-4171.	4.7	10
49	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
50	Pinpointing a Mechanistic Switch Between Ketoreduction and α,β -Reduction in Short-Chain Dehydrogenases/Reductases. <i>Angewandte Chemie</i> , 2016, 128, 9748-9752.	2.0	9
51	Engineering nature for gaseous hydrocarbon production. <i>Microbial Cell Factories</i> , 2020, 19, 209.	4.0	9
52	Promoter engineering for microbial bio-alkane gas production. <i>Synthetic Biology</i> , 2020, 5, ysaa022.	2.2	6
53	Bioproduction of Linalool From Paper Mill Waste. <i>Frontiers in Bioengineering and Biotechnology</i> , 2022, 10, .	4.1	3
54	Thermal, electrochemical and photochemical reactions involving catalytically versatile ene reductase enzymes. <i>The Enzymes</i> , 2020, 47, 491-515.	1.7	2

#	ARTICLE	IF	CITATIONS
55	Bacillus Strain AK.1 Protease. , 2013, , 3177-3179.		1
56	Thermus Strain Rt41A Protease. , 2013, , 3171-3174.		1
57	Natural Product Biosynthesis in Escherichia coli. Methods in Enzymology, 2016, 575, 247-270.	1.0	1
58	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
59	Flavin oxidation state impacts on nitrofurantoin antibiotic binding orientation in nitroreductases. Biochemical Journal, 2021, 478, 3423-3428.	3.7	0
60	Electron Transfer Flavoproteins. , 2021, , 1-6.		0