

Jason Micklefield

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.

119
papers

4,939
citations

35
h-index

67
g-index

133
ext. papers

5,720
ext. citations

10.2
avg, IF

5.7
L-index

#	Paper	IF	Citations
119	Merging enzymes with chemocatalysis for amide bond synthesis.. <i>Nature Communications</i> , 2022 , 13, 380	17.4	9
118	New reaction pathways by integrating chemo- and biocatalysis. <i>Trends in Chemistry</i> , 2022 ,	14.8	9
117	Genome editing reveals that pSCL4 is required for chromosome linearity in. <i>Microbial Genomics</i> , 2021 , 7,	4.4	1
116	Gene editing enables rapid engineering of complex antibiotic assembly lines. <i>Nature Communications</i> , 2021 , 12, 6872	17.4	4
115	Programmable late-stage C-H bond functionalization enabled by integration of enzymes with chemocatalysis. <i>Nature Catalysis</i> , 2021 , 4, 385-394	36.5	9
114	Discovery, characterization and engineering of ligases for amide synthesis. <i>Nature</i> , 2021 , 593, 391-398	50.4	9
113	Engineering Orthogonal Methyltransferases to Create Alternative Bioalkylation Pathways. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 14950-14956	16.4	20
112	Engineering Orthogonal Methyltransferases to Create Alternative Bioalkylation Pathways. <i>Angewandte Chemie</i> , 2020 , 132, 15060-15066	3.6	15
111	Harnessing and engineering amide bond forming ligases for the synthesis of amides. <i>Current Opinion in Chemical Biology</i> , 2020 , 55, 77-85	9.7	17
110	Rapid prototyping of microbial production strains for the biomanufacture of potential materials monomers. <i>Metabolic Engineering</i> , 2020 , 60, 168-182	9.7	25
109	Engineering towards production of gatekeeper (2)-flavanones: naringenin, pinocembrin, eriodictyol and homoeriodictyol. <i>Synthetic Biology</i> , 2020 , 5, ysaa012	3.3	17
108	Assembling a plug-and-play production line for combinatorial biosynthesis of aromatic polyketides in <i>Escherichia coli</i> . <i>PLoS Biology</i> , 2019 , 17, e3000347	9.7	25
107	Engineering enzymatic assembly lines to produce new antibiotics. <i>Current Opinion in Microbiology</i> , 2019 , 51, 88-96	7.9	24
106	De novo Biosynthesis of "Non-Natural" Thaxtomin Phytotoxins. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 6830-6833	16.4	27
105	The cycloaspeptides: uncovering a new model for methylated nonribosomal peptide biosynthesis. <i>Chemical Science</i> , 2018 , 9, 4109-4117	9.4	18
104	De novo Biosynthesis of Non-Natural Thaxtomin Phytotoxins. <i>Angewandte Chemie</i> , 2018 , 130, 6946-6949	3.6	9
103	Development of Halogenase Enzymes for Use in Synthesis. <i>Chemical Reviews</i> , 2018 , 118, 232-269	68.1	160

102	Structure and Biocatalytic Scope of Coclaurine N-Methyltransferase. <i>Angewandte Chemie</i> , 2018 , 130, 10760-10764	3.6	4
101	An automated Design-Build-Test-Learn pipeline for enhanced microbial production of fine chemicals. <i>Communications Biology</i> , 2018 , 1, 66	6.7	97
100	A vitamin K-dependent carboxylase orthologue is involved in antibiotic biosynthesis. <i>Nature Catalysis</i> , 2018 , 1, 977-984	36.5	11
99	Structure and Biocatalytic Scope of Coclaurine N-Methyltransferase. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 10600-10604	16.4	22
98	Recent advances in methyltransferase biocatalysis. <i>Current Opinion in Chemical Biology</i> , 2017 , 37, 97-106	9.7	58
97	Real-Time Monitoring of Enzyme-Catalysed Reactions using Deep UV Resonance Raman Spectroscopy. <i>Chemistry - A European Journal</i> , 2017 , 23, 6983-6987	4.8	8
96	An Engineered Tryptophan Synthase Opens New Enzymatic Pathways to ϵ -Methyltryptophan and Derivatives. <i>ChemBioChem</i> , 2017 , 18, 382-386	3.8	21
95	From Multistep Enzyme Monitoring to Whole-Cell Biotransformations: Development of Real-Time Ultraviolet Resonance Raman Spectroscopy. <i>Analytical Chemistry</i> , 2017 , 89, 12527-12532	7.8	4
94	RadH: A Versatile Halogenase for Integration into Synthetic Pathways. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 11841-11845	16.4	41
93	RadH: A Versatile Halogenase for Integration into Synthetic Pathways. <i>Angewandte Chemie</i> , 2017 , 129, 12003-12007	3.6	8
92	Structure and biocatalytic scope of thermophilic flavin-dependent halogenase and flavin reductase enzymes. <i>Organic and Biomolecular Chemistry</i> , 2016 , 14, 9354-9361	3.9	43
91	Integrated catalysis opens new arylation pathways via regiodivergent enzymatic C-H activation. <i>Nature Communications</i> , 2016 , 7, 11873	17.4	102
90	Dual transcriptional-translational cascade permits cellular level tuneable expression control. <i>Nucleic Acids Research</i> , 2016 , 44, e21	20.1	29
89	A Flavin-Dependent Decarboxylase-Dehydrogenase-Monooxygenase Assembles the Warhead of β -Epoxyketone Proteasome Inhibitors. <i>Journal of the American Chemical Society</i> , 2016 , 138, 4342-5	16.4	17
88	Effects of Active-Site Modification and Quaternary Structure on the Regioselectivity of Catechol-O-Methyltransferase. <i>Angewandte Chemie</i> , 2016 , 128, 2733-2737	3.6	20
87	An Enzyme Cascade for Selective Modification of Tyrosine Residues in Structurally Diverse Peptides and Proteins. <i>Journal of the American Chemical Society</i> , 2016 , 138, 3038-45	16.4	35
86	Recent advances in engineering nonribosomal peptide assembly lines. <i>Natural Product Reports</i> , 2016 , 33, 317-47	15.1	157
85	Effects of Active-Site Modification and Quaternary Structure on the Regioselectivity of Catechol-O-Methyltransferase. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 2683-7	16.4	44

84	SYNBIOCHEM-a SynBio foundry for the biosynthesis and sustainable production of fine and speciality chemicals. <i>Biochemical Society Transactions</i> , 2016 , 44, 675-7	5.1	5
83	Rewiring Riboswitches to Create New Genetic Circuits in Bacteria. <i>Methods in Enzymology</i> , 2016 , 575, 319-48	1.7	5
82	A Structure-Guided Switch in the Regioselectivity of a Tryptophan Halogenase. <i>ChemBioChem</i> , 2016 , 17, 821-4	3.8	56
81	Functional Exchangeability of Oxidase and Dehydrogenase Reactions in the Biosynthesis of Hydroxyphenylglycine, a Nonribosomal Peptide Building Block. <i>ACS Synthetic Biology</i> , 2015 , 4, 796-807	5.7	5
80	Extending the biocatalytic scope of regiocomplementary flavin-dependent halogenase enzymes. <i>Chemical Science</i> , 2015 , 6, 3454-3460	9.4	73
79	Rational Re-engineering of a Transcriptional Silencing PreQ1 Riboswitch. <i>Journal of the American Chemical Society</i> , 2015 , 137, 9015-21	16.4	29
78	Site-specific bioalkylation of rapamycin by the RapM 16--methyltransferase. <i>Chemical Science</i> , 2015 , 6, 2885-2892	9.4	37
77	Engineered biosynthesis of enduracidin lipoglycopeptide antibiotics using the ramoplanin mannosyltransferase Ram29. <i>Microbiology (United Kingdom)</i> , 2015 , 161, 1338-47	2.9	14
76	Minimum Information about a Biosynthetic Gene cluster. <i>Nature Chemical Biology</i> , 2015 , 11, 625-31	11.7	498
75	Enzymatic enantioselective decarboxylative protonation of heteroaryl malonates. <i>Chemistry - A European Journal</i> , 2015 , 21, 6557-63	4.8	10
74	Modular riboswitch toolsets for synthetic genetic control in diverse bacterial species. <i>Journal of the American Chemical Society</i> , 2014 , 136, 10615-24	16.4	60
73	A high-throughput assay for arylamine halogenation based on a peroxidase-mediated quinone-amine coupling with applications in the screening of enzymatic halogenations. <i>Chemistry - A European Journal</i> , 2014 , 20, 16759-63	4.8	17
72	Generation of orthogonally selective bacterial riboswitches by targeted mutagenesis and in vivo screening. <i>Methods in Molecular Biology</i> , 2014 , 1111, 107-29	1.4	5
71	Bioengineering natural product biosynthetic pathways for therapeutic applications. <i>Current Opinion in Biotechnology</i> , 2012 , 23, 931-40	11.4	26
70	S-adenosyl-methionine-dependent methyltransferases: highly versatile enzymes in biocatalysis, biosynthesis and other biotechnological applications. <i>ChemBioChem</i> , 2012 , 13, 2642-55	3.8	227
69	A methodology for preparing nanostructured biomolecular interfaces with high enzymatic activity. <i>Nanoscale</i> , 2012 , 4, 659-66	7.7	17
68	Probing riboswitch-ligand interactions using thiamine pyrophosphate analogues. <i>Organic and Biomolecular Chemistry</i> , 2012 , 10, 5924-31	3.9	20
67	7.19 C α Bond Formation: Enzymatic Enantioselective Decarboxylative Protonation and C α Bond Formation 2012 , 402-429		2

66	Orthogonal Riboswitches for Tuneable Coexpression in Bacteria. <i>Angewandte Chemie</i> , 2012 , 124, 3680-3684	3.6	6
65	Thermal Bifunctionality of Bacterial Phenylalanine Aminomutase and Ammonia Lyase Enzymes. <i>Angewandte Chemie</i> , 2012 , 124, 4420-4424	3.6	6
64	Introduction of a Non-Natural Amino Acid into a Nonribosomal Peptide Antibiotic by Modification of Adenylation Domain Specificity. <i>Angewandte Chemie</i> , 2012 , 124, 7293-7296	3.6	18
63	Orthogonal riboswitches for tuneable coexpression in bacteria. <i>Angewandte Chemie - International Edition</i> , 2012 , 51, 3620-4	16.4	42
62	Thermal bifunctionality of bacterial phenylalanine aminomutase and ammonia lyase enzymes. <i>Angewandte Chemie - International Edition</i> , 2012 , 51, 4344-8	16.4	28
61	Introduction of a non-natural amino acid into a nonribosomal peptide antibiotic by modification of adenylation domain specificity. <i>Angewandte Chemie - International Edition</i> , 2012 , 51, 7181-4	16.4	81
60	Active site modification of the β -ketoacyl-ACP synthase FabF3 of <i>Streptomyces coelicolor</i> affects the fatty acid chain length of the CDA lipopeptides. <i>Chemical Communications</i> , 2011 , 47, 1860-2	5.8	13
59	Biophysical and cellular-uptake properties of mixed-sequence pyrrolidine-amide oligonucleotide mimics. <i>Chemistry - A European Journal</i> , 2011 , 17, 14429-41	4.8	6
58	Borrelidin modulates the alternative splicing of VEGF in favour of anti-angiogenic isoforms. <i>Chemical Science</i> , 2011 , 2011, 273-278	9.4	21
57	Protein micro- and nanopatterning using aminosilanes with protein-resistant photolabile protecting groups. <i>Journal of the American Chemical Society</i> , 2011 , 133, 2749-59	16.4	38
56	The Snomipede: A parallel platform for scanning near-field photolithography. <i>Journal of Materials Research</i> , 2011 , 26, 2997-3008	2.5	5
55	Reengineering orthogonally selective riboswitches. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010 , 107, 2830-5	11.5	130
54	Parallel scanning near-field photolithography: the snomipede. <i>Nano Letters</i> , 2010 , 10, 4375-80	11.5	71
53	Site-selective immobilisation of functional enzymes on to polystyrene nanoparticles. <i>Organic and Biomolecular Chemistry</i> , 2010 , 8, 782-7	3.9	16
52	A non-enzymatic, DNA template-directed morpholino primer extension approach. <i>Chemistry - A European Journal</i> , 2010 , 16, 2026-30	4.8	9
51	Nanoscale biomolecular structures on self-assembled monolayers generated from modular pegylated disulfides. <i>Chemistry - A European Journal</i> , 2010 , 16, 12234-43	4.8	11
50	Chapter 14. Biosynthesis of nonribosomal peptide precursors. <i>Methods in Enzymology</i> , 2009 , 458, 353-78	1.7	14
49	Biosynthesis and biosynthetic engineering of calcium-dependent lipopeptide antibiotics. <i>Pure and Applied Chemistry</i> , 2009 , 81, 1065-1074	2.1	6

48	Chemical modification of oligonucleotides for therapeutic, bioanalytical and other applications. <i>ChemBioChem</i> , 2009 , 10, 2691-703	3.8	96
47	Structure-Guided Directed Evolution of Alkenyl and Arylmalonate Decarboxylases. <i>Angewandte Chemie</i> , 2009 , 121, 7827-7830	3.6	19
46	Structure-guided directed evolution of alkenyl and arylmalonate decarboxylases. <i>Angewandte Chemie - International Edition</i> , 2009 , 48, 7691-4	16.4	56
45	Lipase-catalysed kinetic resolutions of secondary alcohols in pressurised liquid hydrofluorocarbons. <i>Tetrahedron Letters</i> , 2009 , 50, 3543-3546	2	5
44	Selective covalent protein immobilization: strategies and applications. <i>Chemical Reviews</i> , 2009 , 109, 4025-53	38.3	388
43	Micrometer- and nanometer-scale photopatterning using 2-nitrophenylpropyloxycarbonyl-protected aminosiloxane monolayers. <i>Journal of the American Chemical Society</i> , 2009 , 131, 1513-22	16.4	31
42	Subsurface biomolecular imaging of <i>Streptomyces coelicolor</i> using secondary ion mass spectrometry. <i>Analytical Chemistry</i> , 2008 , 80, 1942-51	7.8	51
41	Auxotrophic-precursor directed biosynthesis of nonribosomal lipopeptides with modified tryptophan residues. <i>Organic and Biomolecular Chemistry</i> , 2008 , 6, 975-8	3.9	26
40	RNA-selective cross-pairing of backbone-extended pyrrolidine-amide oligonucleotide mimics (bePOMs). <i>Organic and Biomolecular Chemistry</i> , 2008 , 6, 92-103	3.9	10
39	Direct site-selective covalent protein immobilization catalyzed by a phosphopantetheinyl transferase. <i>Journal of the American Chemical Society</i> , 2008 , 130, 12456-64	16.4	85
38	Structure and mechanism of an unusual malonate decarboxylase and related racemases. <i>Chemistry - A European Journal</i> , 2008 , 14, 6609-13	4.8	34
37	Engineered biosynthesis of nonribosomal lipopeptides with modified fatty acid side chains. <i>Journal of the American Chemical Society</i> , 2007 , 129, 15182-91	16.4	37
36	NMR confirmation that tryptophan dehydrogenation occurs with syn stereochemistry during the biosynthesis of CDA in <i>Streptomyces coelicolor</i> . <i>Journal of Organic Chemistry</i> , 2007 , 72, 8950-3	4.2	17
35	Stereospecific enzymatic transformation of alpha-ketoglutarate to (2S,3R)-3-methyl glutamate during acidic lipopeptide biosynthesis. <i>Journal of the American Chemical Society</i> , 2007 , 129, 12011-8	16.4	68
34	Cellular targets of natural products. <i>Natural Product Reports</i> , 2007 , 24, 1288-310	15.1	50
33	Mining and engineering natural-product biosynthetic pathways. <i>Nature Chemical Biology</i> , 2007 , 3, 379-86	11.7	184
32	Precursor-directed biosynthesis of nonribosomal lipopeptides with modified glutamate residues. <i>Chemical Communications</i> , 2007 , 2683-5	5.8	27
31	An asparagine oxygenase (AsnO) and a 3-hydroxyasparaginyl phosphotransferase (HasP) are involved in the biosynthesis of calcium-dependent lipopeptide antibiotics. <i>Microbiology (United Kingdom)</i> , 2007 , 153, 768-776	2.9	38

30	Homopolymeric pyrrolidine-amide oligonucleotide mimics: Fmoc-synthesis and DNA/RNA binding properties. <i>Organic and Biomolecular Chemistry</i> , 2007 , 5, 239-48	3.9	10
29	Mixed-sequence pyrrolidine-amide oligonucleotide mimics: Boc(Z) synthesis and DNA/RNA binding properties. <i>Organic and Biomolecular Chemistry</i> , 2007 , 5, 249-59	3.9	16
28	Stereochemical course of tryptophan dehydrogenation during biosynthesis of the calcium-dependent lipopeptide antibiotics. <i>Organic Letters</i> , 2007 , 9, 1513-6	6.2	22
27	Stereospecific backbone methylation of pyrrolidine-amide oligonucleotide mimics (POM). <i>Chemical Communications</i> , 2006 , 1436-8	5.8	5
26	Biosynthesis of the (2S,3R)-3-methyl glutamate residue of nonribosomal lipopeptides. <i>Journal of the American Chemical Society</i> , 2006 , 128, 11250-9	16.4	68
25	Nature's protection racket. <i>Chemistry and Biology</i> , 2005 , 12, 611-3		2
24	Reagents for Carbonyl Methylenation in Organic Synthesis. <i>Current Organic Synthesis</i> , 2005 , 2, 231-259	1.9	21
23	Biotransformations in low-boiling hydrofluorocarbon solvents. <i>Angewandte Chemie - International Edition</i> , 2004 , 43, 5519-23	16.4	34
22	Biotransformations in Low-Boiling Hydrofluorocarbon Solvents. <i>Angewandte Chemie</i> , 2004 , 116, 5635-5639	3.9	3
21	Metabolic flux analysis for calcium dependent antibiotic (CDA) production in <i>Streptomyces coelicolor</i> . <i>Metabolic Engineering</i> , 2004 , 6, 313-25	9.7	29
20	A dynamic combinatorial screen for novel imine reductase activity. <i>Tetrahedron</i> , 2004 , 60, 753-758	2.4	44
19	Daptomycin structure and mechanism of action revealed. <i>Chemistry and Biology</i> , 2004 , 11, 887-8		28
18	Nucleic acid binding properties of thymynyl and adenynyl pyrrolidine-amide oligonucleotide mimics (POM). <i>Chemical Communications</i> , 2004 , 516-7	5.8	12
17	Active-site modifications of adenylation domains lead to hydrolysis of upstream nonribosomal peptidyl thioester intermediates. <i>Journal of the American Chemical Society</i> , 2004 , 126, 5032-3	16.4	55
16	NMR structure determination and calcium binding effects of lipopeptide antibiotic daptomycin. <i>Organic and Biomolecular Chemistry</i> , 2004 , 2, 1872-8	3.9	85
15	Design, synthesis, conformational analysis and nucleic acid hybridisation properties of thymidyl pyrrolidine-amide oligonucleotide mimics (POM). <i>Organic and Biomolecular Chemistry</i> , 2003 , 1, 3277-92	3.9	17
14	Structure, biosynthetic origin, and engineered biosynthesis of calcium-dependent antibiotics from <i>Streptomyces coelicolor</i> . <i>Chemistry and Biology</i> , 2002 , 9, 1175-87		225
13	Synthesis and nucleic-acid-binding properties of sulfamide- and 3?-N-sulfamate-modified DNA. <i>Journal of the Chemical Society, Perkin Transactions 1</i> , 2002 , 485-495		19

12	Backbone modification of nucleic acids: synthesis, structure and therapeutic applications. <i>Current Medicinal Chemistry</i> , 2001 , 8, 1157-79	4.3	155
11	Kinetically selective binding of single stranded RNA over DNA by a pyrrolidine-amide oligonucleotide mimic (POM). <i>Nucleosides, Nucleotides and Nucleic Acids</i> , 2001 , 20, 1169-72	1.4	3
10	Unusual RNA and DNA binding properties of a novel pyrrolidineamide oligonucleotide mimic (POM). <i>Chemical Communications</i> , 2000 , 2251-2252	5.8	27
9	Replacement of the phosphodiester linkage in DNA with sulfamide and 3'-N-sulfamate groups. <i>Chemical Communications</i> , 2000 , 765-766	5.8	6
8	Sulfamide replacement of the phosphodiester linkage in dinucleotides: Synthesis and conformational analysis. <i>Tetrahedron</i> , 1998 , 54, 2129-2142	2.4	8
7	The optimisation of sorption sensor arrays for use in ambient conditions. <i>Sensors and Actuators B: Chemical</i> , 1998 , 50, 69-79	8.5	18
6	Haem d1: stereoselective synthesis of the macrocycle to establish its absolute configuration as 2R,7R1. <i>Journal of the Chemical Society Perkin Transactions 1</i> , 1997 , 2123-2138		12
5	Haem d1: development of a new coupling procedure leading to the synthesis of isobacteriochlorins1. <i>Journal of the Chemical Society Perkin Transactions 1</i> , 1997 , 2111-2122		10
4	Synthesis of sulfamide linked dinucleotide analogues. <i>Tetrahedron Letters</i> , 1997 , 38, 5387-5390	2	6
3	Stereochemical course of malonate decarboxylation in <i>Malonomonas rubra</i> . <i>Journal of the American Chemical Society</i> , 1995 , 117, 1153-1154	16.4	8
2	A novel stereoselective synthesis of the macrocycle of haem d1 that establishes its absolute configuration as 2R,7R. <i>Journal of the Chemical Society Chemical Communications</i> , 1993 , 275		9
1	Alkylation and acylation of 5-phenylsulphonyl- and 5-cyanobutyrolactones. <i>Tetrahedron</i> , 1992 , 48, 7519-7526	2.6	1