

Gavin J Williams

List of Publications by Year in descending order

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Version: 2024-02-01

42
papers

1,715
citations

331670

21
h-index

289244

40
g-index

46
all docs

46
docs citations

46
times ranked

1623
citing authors

#	ARTICLE	IF	CITATIONS
1	Expanding the promiscuity of a natural-product glycosyltransferase by directed evolution. <i>Nature Chemical Biology</i> , 2007, 3, 657-662.	8.0	249
2	Probing the Aglycon Promiscuity of an Engineered Glycosyltransferase. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 8889-8892.	13.8	118
3	Modifying the stereochemistry of an enzyme-catalyzed reaction by directed evolution. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 3143-3148.	7.1	110
4	The impact of enzyme engineering upon natural product glycodiversification. <i>Current Opinion in Chemical Biology</i> , 2008, 12, 556-564.	6.1	91
5	Optimizing Glycosyltransferase Specificity via "Hot Spot" Saturation Mutagenesis Presents a Catalyst for Novobiocin Glycorandomization. <i>Chemistry and Biology</i> , 2008, 15, 393-401.	6.0	88
6	Development of Transcription Factor-Based Designer Macrolide Biosensors for Metabolic Engineering and Synthetic Biology. <i>ACS Synthetic Biology</i> , 2018, 7, 227-239.	3.8	78
7	Engineering polyketide synthases and nonribosomal peptide synthetases. <i>Current Opinion in Structural Biology</i> , 2013, 23, 603-612.	5.7	74
8	Creation of a Pair of Stereochemically Complementary Biocatalysts. <i>Journal of the American Chemical Society</i> , 2006, 128, 16238-16247.	13.7	68
9	An Artificial Pathway for Isoprenoid Biosynthesis Decoupled from Native Hemiterpene Metabolism. <i>ACS Synthetic Biology</i> , 2019, 8, 232-238.	3.8	67
10	Poly Specific <i>trans</i> -Acyltransferase Machinery Revealed <i>via</i> Engineered Acyl-CoA Synthetases. <i>ACS Chemical Biology</i> , 2013, 8, 200-208.	3.4	60
11	Recombinant <i>E. coli</i> Prototype Strains for <i>In Vivo</i> Glycorandomization. <i>ACS Chemical Biology</i> , 2011, 6, 95-100.	3.4	59
12	Transcription factor-based biosensors: a molecular-guided approach for natural product engineering. <i>Current Opinion in Biotechnology</i> , 2021, 69, 172-181.	6.6	57
13	Inversion of Extender Unit Selectivity in the Erythromycin Polyketide Synthase by Acyltransferase Domain Engineering. <i>ACS Chemical Biology</i> , 2017, 12, 114-123.	3.4	54
14	A high-throughput fluorescence-based glycosyltransferase screen and its application in directed evolution. <i>Nature Protocols</i> , 2008, 3, 357-362.	12.0	51
15	Promiscuity of a modular polyketide synthase towards natural and non-natural extender units. <i>Organic and Biomolecular Chemistry</i> , 2013, 11, 4449.	2.8	47
16	Reprogramming Acyl Carrier Protein Interactions of an Acyl-CoA Promiscuous <i>trans</i> -Acyltransferase. <i>Chemistry and Biology</i> , 2014, 21, 636-646.	6.0	43
17	Polyketide Bioderivatization Using the Promiscuous Acyltransferase KirCII. <i>ACS Synthetic Biology</i> , 2017, 6, 421-427.	3.8	42
18	Engineering the Substrate Specificity of a Modular Polyketide Synthase for Installation of Consecutive Non-Natural Extender Units. <i>Journal of the American Chemical Society</i> , 2019, 141, 1961-1969.	13.7	42

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19	Mutant Malonyl-CoA Synthetases with Altered Specificity for Polyketide Synthase Extender Unit Generation. <i>ChemBioChem</i> , 2011, 12, 2289-2293.	2.6	37
20	Engineering enzymatic assembly lines for the production of new antimicrobials. <i>Current Opinion in Microbiology</i> , 2018, 45, 140-148.	5.1	30
21	Structure-guided saturation mutagenesis of N-acetylneuraminic acid lyase for the synthesis of sialic acid mimetics. <i>Protein Engineering, Design and Selection</i> , 2005, 18, 239-246.	2.1	29
22	Harnessing natural product assembly lines: structure, promiscuity, and engineering. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2016, 43, 371-387.	3.0	21
23	A photocrosslinking assay for reporting protein interactions in polyketide and fatty acid synthases. <i>Molecular BioSystems</i> , 2011, 7, 3152.	2.9	20
24	Mapping a Ketosynthase:Acyl Carrier Protein Binding Interface via Unnatural Amino Acid-Mediated Photo-Cross-Linking. <i>Biochemistry</i> , 2014, 53, 7494-7502.	2.5	20
25	Intracellular Light-Activation of Riboswitch Activity. <i>ChemBioChem</i> , 2014, 15, 1346-1351.	2.6	20
26	Computationally-guided exchange of substrate selectivity motifs in a modular polyketide synthase acyltransferase. <i>Nature Communications</i> , 2021, 12, 2193.	12.8	20
27	Development of a Genetically Encoded Biosensor for Detection of Polyketide Synthase Extender Units in <i>Escherichia coli</i> . <i>ACS Synthetic Biology</i> , 2019, 8, 1391-1400.	3.8	19
28	Synthetic biology enabling access to designer polyketides. <i>Current Opinion in Chemical Biology</i> , 2020, 58, 45-53.	6.1	15
29	Synthetic biology, combinatorial biosynthesis, and chemo-enzymatic synthesis of isoprenoids. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2020, 47, 675-702.	3.0	12
30	Probing the Substrate Promiscuity of Isopentenyl Phosphate Kinase as a Platform for Hemiterpene Analogue Production. <i>ChemBioChem</i> , 2019, 20, 2217-2221.	2.6	11
31	Development of Genetically Encoded Biosensors for Reporting the Methyltransferase-Dependent Biosynthesis of Semisynthetic Macrolide Antibiotics. <i>ACS Synthetic Biology</i> , 2021, 10, 2520-2531.	3.8	11
32	Extender Unit Promiscuity and Orthogonal Protein Interactions of an Aminomalonyl-ACP Utilizing Trans-Acyltransferase from Zwittermicin Biosynthesis. <i>ACS Chemical Biology</i> , 2018, 13, 3361-3373.	3.4	10
33	Direct analysis of terpenes from biological buffer systems using SESI and IR-MALDESI. <i>Analytical and Bioanalytical Chemistry</i> , 2018, 410, 953-962.	3.7	8
34	Cheminformatics-based enumeration and analysis of large libraries of macrolide scaffolds. <i>Journal of Cheminformatics</i> , 2018, 10, 53.	6.1	8
35	Protein engineering for natural product biosynthesis and synthetic biology applications. <i>Protein Engineering, Design and Selection</i> , 2021, 34, .	2.1	6
36	A High-Throughput Screen for Directed Evolution of the Natural Product Sulfotransferase LipB. <i>Journal of Biomolecular Screening</i> , 2011, 16, 845-851.	2.6	4

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37	Evaluating nonpolar surface area and liquid chromatography/mass spectrometry response: an application for site occupancy measurements for enzyme intermediates in polyketide biosynthesis. <i>Rapid Communications in Mass Spectrometry</i> , 2014, 28, 2511-2522.	1.5	4
38	An artificial pathway for polyketide biosynthesis. <i>Nature Catalysis</i> , 2020, 3, 536-538.	34.4	4
39	Directed evolution: Creating new enzymes. <i>Biochemist</i> , 2003, 25, 13-15.	0.5	4
40	A high-throughput screen for directed evolution of aminocoumarin amide synthetases. <i>Analytical Biochemistry</i> , 2011, 419, 61-66.	2.4	3
41	Inside Cover: Mutant Malonyl-CoA Synthetases with Altered Specificity for Polyketide Synthase Extender Unit Generation (<i>ChemBioChem</i> 15/2011). <i>ChemBioChem</i> , 2011, 12, 2230-2230.	2.6	0
42	Harnessing the promiscuity of natural product biosynthesis: A platform for engineering pathways with new specificities. <i>Planta Medica</i> , 2015, 81, .	1.3	0