Gavin J Williams

List of Publications by Year
in descending order

42	1,715	331670 21	289244 40
papers	citations	h-index	g-index

46	46	46	1623
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Protein engineering for natural product biosynthesis and synthetic biology applications. Protein Engineering, Design and Selection, 2021, 34, .	2.1	6
2	Computationally-guided exchange of substrate selectivity motifs in a modular polyketide synthase acyltransferase. Nature Communications, 2021, 12, 2193.	12.8	20
3	Transcription factor-based biosensors: a molecular-guided approach for natural product engineering. Current Opinion in Biotechnology, 2021, 69, 172-181.	6.6	57
4	Development of Genetically Encoded Biosensors for Reporting the Methyltransferase-Dependent Biosynthesis of Semisynthetic Macrolide Antibiotics. ACS Synthetic Biology, 2021, 10, 2520-2531.	3.8	11
5	An artificial pathway for polyketide biosynthesis. Nature Catalysis, 2020, 3, 536-538.	34.4	4
6	Synthetic biology enabling access to designer polyketides. Current Opinion in Chemical Biology, 2020, 58, 45-53.	6.1	15
7	Synthetic biology, combinatorial biosynthesis, and chemoâ€'enzymatic synthesis of isoprenoids. Journal of Industrial Microbiology and Biotechnology, 2020, 47, 675-702.	3.0	12
8	Engineering the Substrate Specificity of a Modular Polyketide Synthase for Installation of Consecutive Non-Natural Extender Units. Journal of the American Chemical Society, 2019, 141, 1961-1969.	13.7	42
9	Development of a Genetically Encoded Biosensor for Detection of Polyketide Synthase Extender Units in Escherichia coli. ACS Synthetic Biology, 2019, 8, 1391-1400.	3.8	19
10	Probing the Substrate Promiscuity of Isopentenyl Phosphate Kinase as a Platform for Hemiterpene Analogue Production. ChemBioChem, 2019, 20, 2217-2221.	2.6	11
11	An Artificial Pathway for Isoprenoid Biosynthesis Decoupled from Native Hemiterpene Metabolism. ACS Synthetic Biology, 2019, 8, 232-238.	3.8	67
12	Engineering enzymatic assembly lines for the production of new antimicrobials. Current Opinion in Microbiology, 2018, 45, 140-148.	5.1	30
13	Development of Transcription Factor-Based Designer Macrolide Biosensors for Metabolic Engineering and Synthetic Biology. ACS Synthetic Biology, 2018, 7, 227-239.	3.8	78
14	Direct analysis of terpenes from biological buffer systems using SESI and IR-MALDESI. Analytical and Bioanalytical Chemistry, 2018, 410, 953-962.	3.7	8
15	Extender Unit Promiscuity and Orthogonal Protein Interactions of an Aminomalonyl-ACP Utilizing Trans-Acyltransferase from Zwittermicin Biosynthesis. ACS Chemical Biology, 2018, 13, 3361-3373.	3.4	10
16	Cheminformatics-based enumeration and analysis of large libraries of macrolide scaffolds. Journal of Cheminformatics, 2018, 10, 53.	6.1	8
17	Polyketide Bioderivatization Using the Promiscuous Acyltransferase KirCII. ACS Synthetic Biology, 2017, 6, 421-427.	3.8	42
18	Inversion of Extender Unit Selectivity in the Erythromycin Polyketide Synthase by Acyltransferase Domain Engineering. ACS Chemical Biology, 2017, 12, 114-123.	3.4	54

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19	Harnessing natural product assembly lines: structure, promiscuity, and engineering. Journal of Industrial Microbiology and Biotechnology, 2016, 43, 371-387.	3.0	21
20	Harnessing the promiscuity of natural product biosynthesis: A platform for engineering pathways with new specificities. Planta Medica, 2015, 81, .	1.3	0
21	Evaluating nonpolar surface area and liquid chromatography/mass spectrometry response: an application for site occupancy measurements for enzyme intermediates in polyketide biosynthesis. Rapid Communications in Mass Spectrometry, 2014, 28, 2511-2522.	1.5	4
22	Mapping a Ketosynthase:Acyl Carrier Protein Binding Interface via Unnatural Amino Acid-Mediated Photo-Cross-Linking. Biochemistry, 2014, 53, 7494-7502.	2.5	20
23	Reprogramming Acyl Carrier Protein Interactions of an Acyl-CoA Promiscuous trans-Acyltransferase. Chemistry and Biology, 2014, 21, 636-646.	6.0	43
24	Intracellular Lightâ€Activation of Riboswitch Activity. ChemBioChem, 2014, 15, 1346-1351.	2.6	20
25	Engineering polyketide synthases and nonribosomal peptide synthetases. Current Opinion in Structural Biology, 2013, 23, 603-612.	5.7	74
26	Promiscuity of a modular polyketide synthase towards natural and non-natural extender units. Organic and Biomolecular Chemistry, 2013, 11, 4449.	2.8	47
27	Poly Specific trans-Acyltransferase Machinery Revealed via Engineered Acyl-CoA Synthetases. ACS Chemical Biology, 2013, 8, 200-208.	3.4	60
28	A photocrosslinking assay for reporting protein interactions in polyketide and fatty acid synthases. Molecular BioSystems, 2011, 7, 3152.	2.9	20
29	Recombinant E. coli Prototype Strains for in Vivo Glycorandomization. ACS Chemical Biology, 2011, 6, 95-100.	3.4	59
30	A high-throughput screen for directed evolution of aminocoumarin amide synthetases. Analytical Biochemistry, 2011, 419, 61-66.	2.4	3
31	Mutant Malonylâ€CoA Synthetases with Altered Specificity for Polyketide Synthase Extender Unit Generation. ChemBioChem, 2011, 12, 2289-2293.	2.6	37
32	Inside Cover: Mutant Malonylâ€CoA Synthetases with Altered Specificity for Polyketide Synthase Extender Unit Generation (ChemBioChem 15/2011). ChemBioChem, 2011, 12, 2230-2230.	2.6	0
33	A High-Throughput Screen for Directed Evolution of the Natural Product Sulfotransferase LipB. Journal of Biomolecular Screening, 2011, 16, 845-851.	2.6	4
34	Probing the Aglycon Promiscuity of an Engineered Glycosyltransferase. Angewandte Chemie - International Edition, 2008, 47, 8889-8892.	13.8	118
35	The impact of enzyme engineering upon natural product glycodiversification. Current Opinion in Chemical Biology, 2008, 12, 556-564.	6.1	91
36	Optimizing Glycosyltransferase Specificity via â€œHot Spotâ€•Saturation Mutagenesis Presents a Catalyst for Novobiocin Glycorandomization. Chemistry and Biology, 2008, 15, 393-401.	6.0	88

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37	A high-throughput fluorescence-based glycosyltransferase screen and its application in directed evolution. Nature Protocols, 2008, 3, 357-362.	12.0	51
38	Expanding the promiscuity of a natural-product glycosyltransferase by directed evolution. Nature Chemical Biology, 2007, 3, 657-662.	8.0	249
39	Creation of a Pair of Stereochemically Complementary Biocatalysts. Journal of the American Chemical Society, 2006, 128, 16238-16247.	13.7	68
40	Structure-guided saturation mutagenesis of N-acetylneuraminic acid lyase for the synthesis of sialic acid mimetics. Protein Engineering, Design and Selection, 2005, 18, 239-246.	2.1	29
41	Modifying the stereochemistry of an enzyme-catalyzed reaction by directed evolution. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 3143-3148.	7.1	110
42	Directed evolution: Creating new enzymes. Biochemist, 2003, 25, 13-15.	0.5	4