

Brian O Bachmann

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/390128/publications.pdf>

Version: 2024-02-01

67
papers

3,518
citations

159585

30
h-index

138484

58
g-index

71
all docs

71
docs citations

71
times ranked

4307
citing authors

#	ARTICLE	IF	CITATIONS
1	Chapter 8 Methods for In Silico Prediction of Microbial Polyketide and Nonribosomal Peptide Biosynthetic Pathways from DNA Sequence Data. <i>Methods in Enzymology</i> , 2009, 458, 181-217.	1.0	312
2	A genomics-guided approach for discovering and expressing cryptic metabolic pathways. <i>Nature Biotechnology</i> , 2003, 21, 187-190.	17.5	292
3	The Calicheamicin Gene Cluster and Its Iterative Type I Eneidyne PKS. <i>Science</i> , 2002, 297, 1173-1176.	12.6	280
4	Microbial genome mining for accelerated natural products discovery: is a renaissance in the making?. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2014, 41, 175-184.	3.0	226
5	Microbial Genomics as a Guide to Drug Discovery and Structural Elucidation: A Novel Antifungal Agent, as an Example. <i>Journal of Natural Products</i> , 2005, 68, 493-496.	3.0	214
6	Spectroscopic Studies of Substrate Interactions with Clavaminate Synthase 2, a Multifunctional β -KG-Dependent Non-Heme Iron Enzyme: A Correlation with Mechanisms and Reactivities. <i>Journal of the American Chemical Society</i> , 2001, 123, 7388-7398.	13.7	150
7	The Isd family of haem oxygenases degrades haem to a novel chromophore. <i>Molecular Microbiology</i> , 2010, 75, 1529-1538.	2.5	138
8	β -Lactam synthetase: A new biosynthetic enzyme. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1998, 95, 9082-9086.	7.1	123
9	Comparative mass spectrometry-based metabolomics strategies for the investigation of microbial secondary metabolites. <i>Natural Product Reports</i> , 2017, 34, 6-24.	10.3	122
10	Bioactive oligosaccharide natural products. <i>Natural Product Reports</i> , 2014, 31, 1026-1042.	10.3	102
11	Benzodiazepine Biosynthesis in <i>Streptomyces refuineus</i> . <i>Chemistry and Biology</i> , 2007, 14, 691-701.	6.0	88
12	Antimicrobial drug resistance affects broad changes in metabolomic phenotype in addition to secondary metabolism. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 2336-2341.	7.1	80
13	Mapping Microbial Response Metabolomes for Induced Natural Product Discovery. <i>ACS Chemical Biology</i> , 2015, 10, 1998-2006.	3.4	79
14	The catalytic cycle of β -lactam synthetase observed by x-ray crystallographic snapshots. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002, 99, 14752-14757.	7.1	68
15	Structure of beta-lactam synthetase reveals how to synthesize antibiotics instead of asparagine. <i>Nature Structural Biology</i> , 2001, 8, 684-689.	9.7	59
16	Lipophilic Mediated Assays for β -Hematin Inhibitors. <i>Combinatorial Chemistry and High Throughput Screening</i> , 2010, 13, 285-292.	1.1	53
17	Adenylation Enzyme Characterization Using ^{13}C -18O ₄ -ATP Pyrophosphate Exchange. <i>Chemistry and Biology</i> , 2009, 16, 473-478.	6.0	52
18	Bioretrosynthetic construction of a didanosine biosynthetic pathway. <i>Nature Chemical Biology</i> , 2014, 10, 392-399.	8.0	52

#	ARTICLE	IF	CITATIONS
19	Five-Component Cascade Synthesis of Nucleotide Analogues in an Engineered Self-Immobilized Enzyme Aggregate. <i>ChemBioChem</i> , 2010, 11, 67-70.	2.6	51
20	Metabolic model for diversity-generating biosynthesis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 1772-1777.	7.1	47
21	Structure and Stereochemical Determination of Hypogeamicins from a Cave-Derived Actinomycete. <i>Journal of Natural Products</i> , 2014, 77, 1759-1763.	3.0	44
22	Oxidative cyclizations in orthosomycin biosynthesis expand the known chemistry of an oxygenase superfamily. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 11547-11552.	7.1	42
23	Biosynthesis: Is it time to go retro?. <i>Nature Chemical Biology</i> , 2010, 6, 390-393.	8.0	41
24	Assessing directed evolution methods for the generation of biosynthetic enzymes with potential in drug biosynthesis. <i>Future Medicinal Chemistry</i> , 2011, 3, 809-819.	2.3	41
25	Biosynthetic Origins of C ^α -P Bond Containing Tripeptide K-26. <i>Organic Letters</i> , 2005, 7, 2763-2765.	4.6	40
26	Structuring Microbial Metabolic Responses to Multiplexed Stimuli via Self-Organizing Metabolomics Maps. <i>Chemistry and Biology</i> , 2015, 22, 661-670.	6.0	40
27	Phenotypic Mapping of Metabolic Profiles Using Self-Organizing Maps of High-Dimensional Mass Spectrometry Data. <i>Analytical Chemistry</i> , 2014, 86, 6563-6571.	6.5	37
28	<i>Bacillus cereus</i> Phosphopentomutase Is an Alkaline Phosphatase Family Member That Exhibits an Altered Entry Point into the Catalytic Cycle. <i>Journal of Biological Chemistry</i> , 2011, 286, 8043-8054.	3.4	34
29	Kinetic Mechanism of the Î²-Lactam Synthetase of <i>Streptomyces clavuligerus</i> . <i>Biochemistry</i> , 2000, 39, 11187-11193.	2.5	33
30	Fixing the Unfixable: The Art of Optimizing Natural Products for Human Medicine. <i>Journal of Medicinal Chemistry</i> , 2019, 62, 8412-8428.	6.4	33
31	Structural Mass Spectrometry: Rapid Methods for Separation and Analysis of Peptide Natural Products. <i>Journal of Natural Products</i> , 2012, 75, 48-53.	3.0	32
32	Discovery of human cell selective effector molecules using single cell multiplexed activity metabolomics. <i>Nature Communications</i> , 2018, 9, 39.	12.8	32
33	Structure and Mechanism of ORF36, an Amino Sugar Oxidizing Enzyme in Everninomicin Biosynthesis. <i>Biochemistry</i> , 2010, 49, 9306-9317.	2.5	29
34	Biosynthesis of the apoptolidins in <i>Nocardiosis</i> sp. FU 40. <i>Tetrahedron</i> , 2011, 67, 6568-6575.	1.9	29
35	A Unifying Nitrososynthase Involved in Nitrosugar Biosynthesis. <i>Journal of the American Chemical Society</i> , 2008, 130, 15756-15757.	13.7	28
36	Design and directed evolution of a dideoxy purine nucleoside phosphorylase. <i>Protein Engineering, Design and Selection</i> , 2010, 23, 607-616.	2.1	26

#	ARTICLE	IF	CITATIONS
37	Interkingdom Pharmacology of Angiotensin-I Converting Enzyme Inhibitor Phosphonates Produced by Actinomycetes. <i>ACS Medicinal Chemistry Letters</i> , 2014, 5, 346-351.	2.8	26
38	Response of Secondary Metabolism of Hypogean Actinobacterial Genera to Chemical and Biological Stimuli. <i>Applied and Environmental Microbiology</i> , 2018, 84, .	3.1	26
39	Phosphonopeptide K-26 biosynthetic intermediates in <i>Astrosporangium hypotensionis</i> . <i>Chemical Communications</i> , 2006, , 4518.	4.1	24
40	Spatiochemically Profiling Microbial Interactions with Membrane Scaffolded Desorption Electrospray Ionization-Ion Mobility-Imaging Mass Spectrometry and Unsupervised Segmentation. <i>Analytical Chemistry</i> , 2019, 91, 13703-13711.	6.5	23
41	Identification of ACE pharmacophore in the phosphonopeptide metabolite K-26. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2008, 18, 3068-3071.	2.2	22
42	Fluorescent Probes of the Apoptolidins and their Utility in Cellular Localization Studies. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 961-964.	13.8	21
43	Apoptolidin family glycomacrolides target leukemia through inhibition of ATP synthase. <i>Nature Chemical Biology</i> , 2022, 18, 360-367.	8.0	20
44	Biocatalysis in pharmaceutical preparation and alteration. <i>Current Opinion in Chemical Biology</i> , 2006, 10, 169-176.	6.1	19
45	Synthesis of Nucleotide Analogues by a Promiscuous Phosphoribosyltransferase. <i>Organic Letters</i> , 2007, 9, 4179-4182.	4.6	18
46	Crystal structure of a phosphonotriptide K-26 in complex with angiotensin converting enzyme homologue (AnCE) from <i>Drosophila melanogaster</i> . <i>Biochemical and Biophysical Research Communications</i> , 2010, 398, 532-536.	2.1	17
47	Reassembly of Anthramycin Biosynthetic Gene Cluster by Using Recombinogenic Cassettes. <i>ChemBioChem</i> , 2008, 9, 1603-1608.	2.6	15
48	Combined Chemical and Biosynthetic Route to Access a New Apoptolidin Congener. <i>Organic Letters</i> , 2009, 11, 3032-3034.	4.6	14
49	Nitrososynthase-Triggered Oxidative Carbon-Carbon Bond Cleavage in Baumycin Biosynthesis. <i>Journal of the American Chemical Society</i> , 2013, 135, 11457-11460.	13.7	13
50	Light-Induced Isomerization of Apoptolidin A leads to Inversion of C2=C3 Double Bond Geometry. <i>Organic Letters</i> , 2010, 12, 2944-2947.	4.6	12
51	Synthesis and Multiplexed Activity Profiling of Synthetic Acylphloroglucinol Scaffolds. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 1263-1272.	13.8	11
52	Distance Geometry Protocol to Generate Conformations of Natural Products to Structurally Interpret Ion Mobility-Mass Spectrometry Collision Cross Sections. <i>Journal of Physical Chemistry B</i> , 2014, 118, 13812-13820.	2.6	9
53	DebarcodeR increases fluorescent cell barcoding capacity and accuracy. <i>Cytometry Part A: the Journal of the International Society for Analytical Cytology</i> , 2021, 99, 946-953.	1.5	8
54	The Structure of the Bifunctional Everninomicin Biosynthetic Enzyme EvdMO1 Suggests Independent Activity of the Fused Methyltransferase-Oxidase Domains. <i>Biochemistry</i> , 2018, 57, 6827-6837.	2.5	7

#	ARTICLE	IF	CITATIONS
55	Bifunctional Nitrone-Conjugated Secondary Metabolite Targeting the Ribosome. <i>Journal of the American Chemical Society</i> , 2020, 142, 18369-18377.	13.7	7
56	Molecular Differences between a Mutase and a Phosphatase: Investigations of the Activation Step in <i>Bacillus cereus</i> Phosphopentomutase. <i>Biochemistry</i> , 2012, 51, 1964-1975.	2.5	6
57	Crystal structure of a peptidyl dipeptidase (Dcp) from <i>Actinomycete</i> in complex with its natural inhibitor. <i>FEBS Journal</i> , 2016, 283, 4357-4369.	4.7	6
58	Decoding chemical structures from genomes. <i>Nature Chemical Biology</i> , 2005, 1, 244-245.	8.0	5
59	<i>Lactococcus lactis</i> fabH, Encoding β^2 -Ketoacyl-Acyl Carrier Protein Synthase, Can Be Functionally Replaced by the <i>Plasmodium falciparum</i> Congener. <i>Applied and Environmental Microbiology</i> , 2010, 76, 3959-3966.	3.1	5
60	Structure of DnmZ, a nitrososynthase in the <i>Streptomyces peucetius</i> anthracycline biosynthetic pathway. <i>Acta Crystallographica Section F, Structural Biology Communications</i> , 2015, 71, 1205-1214.	0.8	5
61	Applied evolutionary theories for engineering of secondary metabolic pathways. <i>Current Opinion in Chemical Biology</i> , 2016, 35, 133-141.	6.1	5
62	Methyltransferase Contingencies in the Pathway of Everninomicin D Antibiotics and Analogues. <i>ChemBioChem</i> , 2020, 21, 3349-3358.	2.6	4
63	Development and application of a high throughput assay system for the detection of Rieske dioxygenase activity. <i>Organic and Biomolecular Chemistry</i> , 2021, 19, 775-784.	2.8	4
64	Crystallization and preliminary X-ray analysis of a phosphopentomutase from <i>Bacillus cereus</i> . <i>Acta Crystallographica Section F: Structural Biology Communications</i> , 2010, 66, 811-814.	0.7	3
65	Synthesis and Multiplexed Activity Profiling of Synthetic Acylphloroglucinol Scaffolds. <i>Angewandte Chemie</i> , 2021, 133, 1283-1292.	2.0	2
66	Foundations for Directed Alkaloid Biosynthesis. <i>Chemistry and Biology</i> , 2007, 14, 875-876.	6.0	0
67	The use of fluorescently-tagged apoptolidins in cellular uptake and response studies. <i>Journal of Antibiotics</i> , 2016, 69, 327-330.	2.0	0