Craig A Townsend

List of Publications by Year
in descending order

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234 papers	11,597 citations	29994 54 h-index	43802 91 g-index
238 all docs	238 docs citations	238 times ranked	8254 citing authors

#	Article	IF	Citations
1	Reduced Food Intake and Body Weight in Mice Treated with Fatty Acid Synthase Inhibitors. Science, 2000, 288, 2379-2381.	6.0	906
2	Predictive, structure-based model of amino acid recognition by nonribosomal peptide synthetase adenylation domains. Chemistry and Biology, 2000, 7, 211-224.	6.2	746
3	Enzymology and Molecular Biology of Aflatoxin Biosynthesis. Chemical Reviews, 1997, 97, 2537-2556.	23.0	256
4	Deconstruction of Iterative Multidomain Polyketide Synthase Function. Science, 2008, 320, 243-246.	6.0	202
5	New insights into the formation of fungal aromatic polyketides. Nature Reviews Microbiology, 2010, 8, 879-889.	13.6	201
6	Structural basis for biosynthetic programming of fungal aromatic polyketide cyclization. Nature, 2009, 461, 1139-1143.	13.7	176
7	Identification of a starter unit acyl-carrier protein transacylase domain in an iterative type I polyketide synthase. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 16728-16733.	3.3	164
8	Fatty acid synthase inhibition triggers apoptosis during S phase in human cancer cells. Cancer Research, 2003, 63, 7330-7.	0.4	164
9	Circular Dichroism and Magnetic Circular Dichroism Spectroscopic Studies of the Non-Heme Ferrous Active Site in Clavaminate Synthase and Its Interaction with Î±-Ketoglutarate Cosubstrate. Journal of the American Chemical Society, 1998, 120, 743-753.	6.6	152
10	Spectroscopic Studies of Substrate Interactions with Clavaminate Synthase 2, a Multifunctional Î±-KG-Dependent Non-Heme Iron Enzyme:Â Correlation with Mechanisms and Reactivities. Journal of the American Chemical Society, 2001, 123, 7388-7398.	6.6	150
11	Fatty Acid Synthase Inhibition Activates AMP-Activated Protein Kinase in SKOV3 Human Ovarian Cancer Cells. Cancer Research, 2007, 67, 2964-2971.	0.4	145
12	The architectures of iterative type I PKS and FAS. Natural Product Reports, 2018, 35, 1046-1069.	5.2	143
13	Purification and characterization of clavaminate synthase from Streptomyces clavuligerus: an unusual oxidative enzyme in natural product biosynthesis. Biochemistry, 1990, 29, 6499-6508.	1.2	134
14	An externally tunable bacterial band-pass filter. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 10135-10140.	3.3	130
15	Î²-Lactam synthetase: A new biosynthetic enzyme. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 9082-9086.	3.3	123
16	Intrinsic evolutionary constraints on protease structure, enzyme acylation, and the identity of the catalytic triad. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E653-61.	3.3	121
17	Specific abstraction of the 5'S- and 4'-deoxyribosyl hydrogen atoms from DNA by calicheamicin .gamma.1I. Journal of the American Chemical Society, 1992, 114, 9200-9202.	6.6	119
18	Non-classical transpeptidases yield insight into new antibacterials. Nature Chemical Biology, 2017, 13, 54-61.	3.9	116

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19	Structure and function of an iterative polyketide synthase thioesterase domain catalyzing Claisen cyclization in aflatoxin biosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 6246-6251.	3.3	110
20	Î²-Lactam formation by a non-ribosomal peptide synthetase during antibiotic biosynthesis. Nature, 2015, 520, 383-387.	13.7	104
21	A Method for Prediction of the Locations of Linker Regions within Large Multifunctional Proteins, and Application to a Type I Polyketide Synthase. Journal of Molecular Biology, 2002, 323, 585-598.	2.0	103
22	Site-specific atom transfer from DNA to a bound ligand defines the geometry of a DNA-calicheamicin .gamma.1I complex. Journal of the American Chemical Society, 1990, 112, 9669-9670.	6.6	101
23	Rational strain improvement for enhanced clavulanic acid production by genetic engineering of the glycolytic pathway in Streptomyces clavuligerus. Metabolic Engineering, 2006, 8, 240-252.	3.6	93
24	Two isozymes of clavaminate synthase central to clavulanic acid formation: cloning and sequencing of both genes from Streptomyces clavuligerus. Biochemistry, 1992, 31, 12648-12657.	1.2	92
25	Ordering the Reductive and Cytochrome P450 Oxidative Steps in Demethylsterigmatocystin Formation Yields General Insights into the Biosynthesis of Aflatoxin and Related Fungal Metabolites. Journal of the American Chemical Society, 2005, 127, 3724-3733.	6.6	92
26	Initial Characterization of a Type I Fatty Acid Synthase and Polyketide Synthase Multienzyme Complex NorS in the Biosynthesis of Aflatoxin B1. Chemistry and Biology, 2002, 9, 981-988.	6.2	90
27	Origin of the Î²-Lactam Carbons in Clavulanic Acid from an Unusual Thiamine Pyrophosphate-Mediated Reaction. Journal of the American Chemical Society, 1999, 121, 9223-9224.	6.6	89
28	Characterization of the in vitro cyclization chemistry of calicheamicin and its relation to DNA cleavage. Journal of the American Chemical Society, 1990, 112, 4554-4556.	6.6	87
29	A New Class of Antituberculosis Agents. Journal of Medicinal Chemistry, 2000, 43, 3304-3314.	2.9	84
30	Molecular Characterization of the Cercosporin Biosynthetic Pathway in the Fungal Plant Pathogen Cercospora nicotianae. Journal of the American Chemical Society, 2016, 138, 4219-4228.	6.6	82
31	Methoxymethyl-directed aryl metalation. Total synthesis of (.+-.)-averufin. Journal of the American Chemical Society, 1981, 103, 6885-6888.	6.6	81
32	Substrate Binding to the Î±-Ketoglutarate-Dependent Non-Heme Iron Enzyme Clavaminate Synthase 2:â€‰Coupling Mechanism of Oxidative Decarboxylation and Hydroxylation. Journal of the American Chemical Society, 1998, 120, 13539-13540.	6.6	81
33	Application of a Flexible Synthesis of (5R)-Thiolactomycin To Develop New Inhibitors of Type I Fatty Acid Synthase. Journal of Medicinal Chemistry, 2005, 48, 946-961.	2.9	80
34	Consecutive radical S -adenosylmethionine methylations form the ethyl side chain in thienamycin biosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 10354-10358.	3.3	77
35	Studies of methoxymethyl-directed metalation. Tetrahedron Letters, 1981, 22, 3923-3924.	0.7	75
36	Design and Synthesis of Small Molecule Glycerol 3-Phosphate Acyltransferase Inhibitors. Journal of Medicinal Chemistry, 2009, 52, 3317-3327.	2.9	75

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37	Demonstration of the catalytic roles and evidence for the physical association of type I fatty acid synthases and a polyketide synthase in the biosynthesis of aflatoxin B1. Chemistry and Biology, 1996, 3, 463-469.	6.2	74
38	Carbapenem Biosynthesis:Â Confirmation of Stereochemical Assignments and the Role of CarC in the Ring Stereoinversion Process froml-Proline. Journal of the American Chemical Society, 2003, 125, 8486-8493.	6.6	73
39	Nocardicin A: biosynthetic experiments with amino acid precursors. Journal of the American Chemical Society, 1983, 105, 913-918.	6.6	72
40	Total syntheses of (-)-nocardicins A-G: a biogenetic approach. Journal of the American Chemical Society, 1990, 112, 760-770.	6.6	72
41	Elucidation of the order of oxidations and identification of an intermediate in the multistep clavaminate synthase reaction. Biochemistry, 1991, 30, 2281-2292.	1.2	70
42	Expansion of the Clavulanic Acid Gene Cluster: Identification and In Vivo Functional Analysis of Three New Genes Required for Biosynthesis of Clavulanic Acid by Streptomyces clavuligerus. Journal of Bacteriology, 2000, 182, 4087-4095.	1.0	70
43	The catalytic cycle of Â-lactam synthetase observed by x-ray crystallographic snapshots. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 14752-14757.	3.3	68
44	Quantitative Proteomic Analysis of Drug-Induced Changes in Mycobacteria. Journal of Proteome Research, 2006, 5, 54-63.	1.8	68
45	Non-ribosomal Propeptide Precursor in Nocardicin A Biosynthesis Predicted from Adenylation Domain Specificity Dependent on the MbtH Family Protein NocI. Journal of the American Chemical Society, 2013, 135, 1749-1759.	6.6	68
46	Experiments and speculations on the role of oxidative cyclization chemistry in natural product biosynthesis. Tetrahedron, 1991, 47, 2591-2602.	1.0	64
47	Isolation and Characterization of the Versicolorin B Synthase Gene from Aspergillus parasiticus. Journal of Biological Chemistry, 1996, 271, 13600-13608.	1.6	63
48	The Biosynthetic Gene Cluster for a Monocyclic Î²-Lactam Antibiotic, Nocardicin A. Chemistry and Biology, 2004, 11, 927-938.	6.2	63
49	Hexanoate as a starter unit in polyketide biosynthesis. Journal of the American Chemical Society, 1984, 106, 3868-3869.	6.6	62
50	Three Unusual Reactions Mediate Carbapenem and Carbapenam Biosynthesis. Journal of the American Chemical Society, 2000, 122, 9296-9297.	6.6	62
51	Synthesis of 11-HydroxylO-Methylsterigmatocystin and the Role of a Cytochrome P-450 in the Final Step of Aflatoxin Biosynthesis. Journal of the American Chemical Society, 2002, 124, 5294-5303.	6.6	62
52	Stereochemical correlation of proclavaminic acid and syntheses of erythro- and threo-L-.beta.-hydroxyornithine from an improved vinylglycine synthon. Journal of Organic Chemistry, 1991, 56, 728-731.	1.7	61
53	Metabolic engineering of the E. coli l-phenylalanine pathway for the production of d-phenylglycine (d-Phg). Metabolic Engineering, 2006, 8, 196-208.	3.6	61
54	Gene cluster conservation provides insight into cercosporin biosynthesis and extends production to the genus Colletotrichum. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E5459-E5466.	3.3	61

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55	Structure of beta-lactam synthetase reveals how to synthesize antibiotics instead of asparagine. Nature Structural Biology, 2001, 8, 684-689.	9.7	59
56	Systematic Domain Swaps of Iterative, Nonreducing Polyketide Synthases Provide a Mechanistic Understanding and Rationale For Catalytic Reprogramming. Journal of the American Chemical Society, 2014, 136, 7348-7362.	6.6	59
57	Identification and Characterization of the Sulfazecin Monobactam Biosynthetic Gene Cluster. Cell Chemical Biology, 2017, 24, 24-34.	2.5	59
58	Mechanistic Insights into the Bifunctional Non-Heme Iron Oxygenase Carbapenem Synthase by Active Site Saturation Mutagenesis. Journal of the American Chemical Society, 2013, 135, 7496-7502.	6.6	56
59	New reactions in clavulanic acid biosynthesis. Current Opinion in Chemical Biology, 2002, 6, 583-589.	2.8	55
60	Epimerization and substrate gating by a TE domain in Î²-lactam antibiotic biosynthesis. Nature Chemical Biology, 2014, 10, 251-258.	3.9	55
61	A dual role for a polyketide synthase in dynemicin enediyne and anthraquinone biosynthesis. Nature Chemistry, 2018, 10, 231-236.	6.6	55
62	Biochemical Determination of Enzyme-Bound Metabolites: Preferential Accumulation of a Programmed Octaketide on the Enediyne Polyketide Synthase CalE8. Journal of the American Chemical Society, 2013, 135, 14339-14348.	6.6	53
63	A Flexible Route to (5R)-Thiolactomycin, a Naturally Occurring Inhibitor of Fatty Acid Synthesis. Organic Letters, 2002, 4, 3859-3862.	2.4	52
64	Polyketide Proofreading by an Acyltransferase-like Enzyme. Chemistry and Biology, 2012, 19, 329-339.	6.2	52
65	The structural organization of substrate loading in iterative polyketide synthases. Nature Chemical Biology, 2018, 14, 474-479.	3.9	50
66	Role of the Cytochrome P450 NocL in Nocardicin A Biosynthesis. Journal of the American Chemical Society, 2002, 124, 8186-8187.	6.6	49
67	Production of Octaketide Polyenes by the Calicheamicin Polyketide Synthase CalE8: Implications for the Biosynthesis of Enediyne Core Structures. Journal of the American Chemical Society, 2009, 131, 12564-12566.	6.6	49
68	Requirement of Monooxygenase-Mediated Steps for Sterigmatocystin Biosynthesis by Aspergillus nidulans. Applied and Environmental Microbiology, 2000, 66, 359-362.	1.4	48
69	In Vitro Activity of a Novel Antimycobacterial Compound, N -Octanesulfonylacetamide, and Its Effects on Lipid and Mycolic Acid Synthesis. Antimicrobial Agents and Chemotherapy, 2001, 45, 1143-1150.	1.4	48
70	Starter unit specificity directs genome mining of polyketide synthase pathways in fungi. Bioorganic Chemistry, 2008, 36, 16-22.	2.0	48
71	Unusual blue-shifted acid-responsive photoluminescence behavior in 6-amino-8-cyanobenzo[1,2-b]indolizines. RSC Advances, 2016, 6, 61249-61253.	1.7	48
72	Characterization of a Fungal Thioesterase Having Claisen Cyclase and Deacetylase Activities in Melanin Biosynthesis. Chemistry and Biology, 2012, 19, 1525-1534.	6.2	46

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73	Nocardicin A: stereochemical and biomimetic studies of monocyclic Î²-lactam formation. Journal of the American Chemical Society, 1983, 105, 919-927.	6.6	45
74	Inhibition and Alternate Substrate Studies on the Mechanism of Carbapenam Synthetase fromErwinia carotovoraâ€. Biochemistry, 2003, 42, 7836-7847.	1.2	45
75	Interrogation of Global Active Site Occupancy of a Fungal Iterative Polyketide Synthase Reveals Strategies for Maintaining Biosynthetic Fidelity. Journal of the American Chemical Society, 2012, 134, 6865-6877.	6.6	45
76	Analysis of the cercosporin polyketide synthase CTB1 reveals a new fungal thioesterase function. Chemical Communications, 2012, 48, 11772.	2.2	45
77	Loss of a Functionally and Structurally Distinct ld-Transpeptidase, LdtMt5, Compromises Cell Wall Integrity in Mycobacterium tuberculosis. Journal of Biological Chemistry, 2015, 290, 25670-25685.	1.6	45
78	The potential role of fatty acid initiation in the biosynthesis of the fungal aromatic polyketide aflatoxin B₁. Canadian Journal of Chemistry, 1994, 72, 200-207.	0.6	44
79	New Insights into the Conversion of Versicolorin A in the Biosynthesis of Aflatoxin B₁. Journal of the American Chemical Society, 2015, 137, 10867-10869.	6.6	44
80	Probable Role of Clavaminic Acid as the Terminal Intermediate in the Common Pathway to Clavulanic Acid and the Antipodal Clavam Metabolites. Journal of the American Chemical Society, 1997, 119, 2348-2355.	6.6	43
81	Synthesis and Fate ofo-Carboxybenzophenones in the Biosynthesis of Aflatoxin. Journal of the American Chemical Society, 2005, 127, 3300-3309.	6.6	43
82	Active Site Comparisons and Catalytic Mechanisms of the Hot Dog Superfamily. Chemical Reviews, 2013, 113, 2182-2204.	23.0	43
83	Biosynthesis of clavulanic acid: origin of the C5 unit. Journal of the American Chemical Society, 1985, 107, 1065-1066.	6.6	42
84	Stereochemical course of the key ring-forming reactions in clavulanic acid biosynthesis. Journal of the American Chemical Society, 1990, 112, 1654-1656.	6.6	42
85	Structural insight into the inactivation of Mycobacterium tuberculosis non-classical transpeptidase LdtMt2 by biapenem and tebipenem. BMC Biochemistry, 2017, 18, 8.	4.4	42
86	Expression and Purification of Two Isozymes of Clavaminate Synthase and Initial Characterization of the Iron Binding Site. Journal of Biological Chemistry, 1995, 270, 4262-4269.	1.6	41
87	Biosynthesis of clavulanic acid: origin of the C3 unit. Journal of the American Chemical Society, 1985, 107, 1066-1068.	6.6	40
88	Purification and Characterization of Clavaminate Synthase from Streptomyces antibioticus. Journal of Biological Chemistry, 1995, 270, 5399-5404.	1.6	40
89	Synthesis of (3S,5R)-Carbapenam-3-carboxylic Acid and Its Role in Carbapenem Biosynthesis and the Stereoinversion Problem. Journal of the American Chemical Society, 2003, 125, 15746-15747.	6.6	40
90	Synthetic Strategy of Nonreducing Iterative Polyketide Synthases and the Origin of the Classical â€œStarterâ€Unit Effectâ€• ChemBioChem, 2008, 9, 1019-1023.	1.3	40

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91	Chromobacterium spp. mediate their anti-Plasmodium activity through secretion of the histone deacetylase inhibitor romidepsin. Scientific Reports, 2018, 8, 6176.	1.6	40
92	Solution-phase synthesis of a combinatorial monocyclic Î²-lactam library: Potential protease inhibitors. Bioorganic and Medicinal Chemistry Letters, 1997, 7, 3129-3134.	1.0	39
93	Total Synthesis ofO-Methylsterigmatocystin UsingN-Alkylnitrilium Salts and Carbonylâ^'Alkene Interconversion in a New Xanthone Synthesis. Journal of Organic Chemistry, 1999, 64, 4050-4059.	1.7	39
94	Non-Heme Iron Oxygenases Generate Natural Structural Diversity in Carbapenem Antibiotics. Journal of the American Chemical Society, 2010, 132, 12-13.	6.6	39
95	Purification, Characterization, and Cloning of an S-Adenosylmethionine-dependent 3-Amino-3-carboxypropyltransferase in Nocardicin Biosynthesis. Journal of Biological Chemistry, 1998, 273, 30695-30703.	1.6	38
96	Combinatorial Domain Swaps Provide Insights into the Rules of Fungal Polyketide Synthase Programming and the Rational Synthesis of Nonâ€Native Aromatic Products. Angewandte Chemie - International Edition, 2013, 52, 1718-1721.	7.2	38
97	Silyl Triflate-Mediated Ring-Closure and Rearrangement in the Synthesis of Potential Bisfuran-Containing Intermediates of Aflatoxin Biosynthesis. Journal of the American Chemical Society, 1999, 121, 7729-7746.	6.6	37
98	Observation of an Acryloylâ^'Thiamin Diphosphate Adduct in the First Step of Clavulanic Acid Biosynthesis. Journal of the American Chemical Society, 2007, 129, 15750-15751.	6.6	37
99	A â€œDielsâ€Alderaseâ€•at Last. ChemBioChem, 2011, 12, 2267-2269.	1.3	37
100	Stereochemical fate of chiral methyl of valine in the ring expansion of penicillin N to deacetoxycephalosporin C. Journal of the American Chemical Society, 1985, 107, 4760-4767.	6.6	36
101	Crystal Structure of Carbapenam Synthetase (CarA). Journal of Biological Chemistry, 2003, 278, 40996-41002.	1.6	36
102	Pharmacological glycerol-3-phosphate acyltransferase inhibition decreases food intake and adiposity and increases insulin sensitivity in diet-induced obesity. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2011, 301, R116-R130.	0.9	36
103	Quenching of pHâ€Responsive Luminescence of a Benzoindolizine Sensor by an Ultrafast Hydrogen Shift. Chemistry - A European Journal, 2016, 22, 15212-15215.	1.7	36
104	Structure of a B12-dependent radical SAM enzyme in carbapenem biosynthesis. Nature, 2022, 602, 343-348.	13.7	36
105	Oxidative cyclization chemistry catalyzed by clavaminate synthase. Journal of the American Chemical Society, 1989, 111, 7625-7627.	6.6	35
106	A single monomeric iron center in clavaminate synthase catalyzes three nonsuccessive oxidative transformations. Bioorganic and Medicinal Chemistry, 1996, 4, 1059-1064.	1.4	35
107	A Concise Synthesis of (+)-Cerulenin from a Chiral Oxiranyllithium. Journal of Organic Chemistry, 1997, 62, 636-640.	1.7	35
108	Definition of the Common and Divergent Steps in Carbapenem Î²â€Lactam Antibiotic Biosynthesis. ChemBioChem, 2011, 12, 2159-2165.	1.3	35

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109	Convergent biosynthetic pathways to Î²-lactam antibiotics. Current Opinion in Chemical Biology, 2016, 35, 97-108.	2.8	35
110	Asymmetric, biogenetically modeled synthesis of (-)-3-aminonocardicinic acid. Journal of the American Chemical Society, 1981, 103, 4582-4583.	6.6	34
111	Bisfuran formation in aflatoxin biosynthesis: the role of versiconal acetate. Journal of the American Chemical Society, 1982, 104, 6154-6155.	6.6	34
112	Stable isotope studies of anthraquinone intermediates in the aflatoxin pathway. Tetrahedron, 1983, 39, 3575-3582.	1.0	34
113	Partitioning of tetrahydro- and dihydrobisfuran formation in aflatoxin biosynthesis defined by cell-free and direct incorporation experiments. Journal of the American Chemical Society, 1989, 111, 8308-8309.	6.6	33
114	Common origin of clavulanic acid and clavam metabolites in Streptomyces. Journal of the American Chemical Society, 1992, 114, 2762-2763.	6.6	33
115	Kinetic Mechanism of the Î²-Lactam Synthetase of Streptomyces clavuligerus. Biochemistry, 2000, 39, 11187-11193.	1.2	33
116	Four enzymes define the incorporation of coenzyme A in thienamycin biosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 11128-11133.	3.3	33
117	A new synthesis of chiral acetic acid. Journal of the Chemical Society Chemical Communications, 1975, , 921.	2.0	32
118	A Practical Route to Substituted 7-Aminoindoles from Pyrrole-3-carboxaldehydes. Organic Letters, 2014, 16, 6334-6337.	2.4	32
119	Role of the Aryl Iodide in the Sequence-Selective Cleavage of DNA by Calicheamicin. Importance of Thermodynamic Binding vs. Kinetic Activation in the Cleavage Process. Journal of the American Chemical Society, 1995, 117, 8074-8082.	6.6	31
120	Starter Unit Flexibility for Engineered Product Synthesis by the Nonreducing Polyketide Synthase PksA. ACS Chemical Biology, 2015, 10, 1443-1449.	1.6	31
121	Hydroxyversicolorone: isolation and characterization of a potential intermediate in aflatoxin biosynthesis. Journal of Organic Chemistry, 1988, 53, 2472-2477.	1.7	30
122	Functional and Structural Analysis of Programmed C-Methylation in the Biosynthesis of the Fungal Polyketide Citrinin. Cell Chemical Biology, 2017, 24, 316-325.	2.5	30
123	Features of DNA recognition for oriented binding and cleavage by calicheamicin. Tetrahedron, 1994, 50, 1361-1378.	1.0	29
124	Purification and Characterization of Versicolorin B Synthase from Aspergillus parasiticus. Catalysis of the Stereodifferentiating Cyclization in Aflatoxin Biosynthesis Essential to DNA Interaction. Biochemistry, 1996, 35, 11470-11486.	1.2	29
125	Î²-Secondary Kinetic Isotope Effects in the Clavaminate Synthase-Catalyzed Oxidative Cyclization of Proclavaminic Acid and in Related Azetidinone Model Reactions. Journal of the American Chemical Society, 1999, 121, 11356-11368.	6.6	29
126	Effect ofn-octanesulphonylacetamide (OSA) on ATP and protein expression in Mycobacterium bovis BCG. Journal of Antimicrobial Chemotherapy, 2004, 54, 722-729.	1.3	29

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127	Dissection of the Stepwise Mechanism to Î²-Lactam Formation and Elucidation of a Rate-determining Conformational Change in Î²-Lactam Synthetase. Journal of Biological Chemistry, 2009, 284, 207-217.	1.6	28
128	Whole-Genome Shotgun Sequencing of Two Î²-Proteobacterial Species in Search of the Bulgecin Biosynthetic Cluster. ACS Chemical Biology, 2017, 12, 2552-2557.	1.6	28
129	CONCERNING THE BIOSYNTHESIS OF VITAMIN B‹sub›12‹/sub›*,â€. Transactions of the New York Academy of Sciences, 1973, 35, 72-79.	0.2	27
130	General Approach to the Synthesis of Specifically Deuterium-Labeled Nucleosides. Journal of Organic Chemistry, 1994, 59, 2715-2723.	1.7	27
131	Carboxymethylproline Synthase fromPectobacterium carotorova:Â A Multifaceted Member of the Crotonase Superfamilyâ€. Biochemistry, 2004, 43, 15936-15945.	1.2	27
132	New Î±-methylene-Î³-butyrolactones with antimycobacterial properties. Bioorganic and Medicinal Chemistry Letters, 2005, 15, 3857-3859.	1.0	27
133	Probing the Selectivity and Proteinâ‹…Protein Interactions of a Nonreducing Fungal Polyketide Synthase Using Mechanism-Based Crosslinkers. Chemistry and Biology, 2013, 20, 1135-1146.	6.2	27
134	A Simple, Inexpensive Preparation of Highly Pure Copper (I) Bromide and its Dimethylsulfide Complex. Synthetic Communications, 1981, 11, 157-166.	1.1	26
135	.beta.-Hydroxydecanoyl thioester dehydrase. Complete characterization of the fate of the "suicide" substrate 3-decynoyl-NAC. Journal of the American Chemical Society, 1986, 108, 5309-5316.	6.6	26
136	InÂVivo Characterization of Nonribosomal Peptide Synthetases NocA and NocB in the Biosynthesis of Nocardicin A. Chemistry and Biology, 2012, 19, 297-306.	6.2	26
137	Heterologous Expression, Isolation, and Characterization of Versicolorin B Synthase from Aspergillus parasiticus. Journal of Biological Chemistry, 1997, 272, 804-813.	1.6	25
138	Mutational Analysis of nocK and nocL in the Nocardicin A Producer Nocardia uniformis. Journal of Bacteriology, 2005, 187, 739-746.	1.0	25
139	A Catalytic Asymmetric Route to Carbapenems. Organic Letters, 2009, 11, 3606-3609.	2.4	25
140	Demonstration of Starter Unit Interprotein Transfer from a Fatty Acid Synthase to a Multidomain, Nonreducing Polyketide Synthase. ChemBioChem, 2012, 13, 1880-1884.	1.3	25
141	Aflatoxin and deconstruction of type I, iterative polyketide synthase function. Natural Product Reports, 2014, 31, 1260-1265.	5.2	25
142	Monobactam formation in sulfazecin by a nonribosomal peptide synthetase thioesterase. Nature Chemical Biology, 2018, 14, 5-7.	3.9	25
143	Evolutionary and functional analysis of an NRPS condensation domain integrates Î²-lactam, á´…-amino acid, and dehydroamino acid synthesis. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	25
144	Bisfuran formation in aflatoxin biosynthesis: the fate of the averufin side chain. Journal of the American Chemical Society, 1982, 104, 6152-6153.	6.6	24

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145	The timing of aromatic deoxygenation in aflatoxin biosynthesis. Journal of the American Chemical Society, 1989, 111, 8306-8308.	6.6	24
146	Methylations in complex carbapenem biosynthesis are catalyzed by a single cobalamin-dependent radicalS-adenosylmethionine enzyme. Chemical Communications, 2019, 55, 14934-14937.	2.2	24
147	Reaction Models of the Oxidative Rearrangement of Averufin to 1'- Hydroxyversicolorone: The First Step in Dihydrobisfuran Formation in Aflatoxin Biosynthesis. Tetrahedron, 1989, 45, 2263-2276.	1.0	23
148	Carbon-13 Fourier transform NMR. VII. Stereochemistry of methyl group insertion in corrinoid biosynthesis. Determination of carbon isotope chirality by carbon-13 nuclear magnetic resonance. Journal of the American Chemical Society, 1973, 95, 5759-5761.	6.6	22
149	Nocardicin A biosynthesis: stereochemical course of monocyclic .beta.-lactam formation. Journal of the American Chemical Society, 1982, 104, 1748-1750.	6.6	22
150	Concerning the role of nidurufin in aflatoxin biosynthesis. Journal of the American Chemical Society, 1985, 107, 270-271.	6.6	22
151	Demonstration of Baeyer-Villiger oxidation and the course of cyclization in bisfuran ring formation during aflatoxin B1 biosynthesis. Bioorganic and Medicinal Chemistry Letters, 1993, 3, 653-656.	1.0	22
152	Synthesis and Reaction of Potential Alternate Substrates and Mechanism-Based Inhibitors of Clavaminate Synthase. Journal of Natural Products, 1993, 56, 1373-1396.	1.5	22
153	The Role of the Aminosugar and Helix Binding in the Thiol-Induced Activation of Calicheamicin for DNA Cleavage. Journal of the American Chemical Society, 1996, 118, 1938-1948.	6.6	22
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