David E Cane

List of Publications by Year
in descending order

214 papers	16,782 citations	10979 71 h-index	20343 116 g-index
242 all docs	242 docs citations	242 times ranked	6754 citing authors

#	Article	IF	Citations
1	Stereospecific Formation of Z-Trisubstituted Double Bonds by the Successive Action of Ketoreductase and Dehydratase Domains from trans-AT Polyketide Synthases. Biochemistry, 2018, 57, 3126-3129.	1.2	11
2	pH-Rate profiles establish that polyketide synthase dehydratase domains utilize a single-base mechanism. Organic and Biomolecular Chemistry, 2018, 16, 9165-9170.	1.5	13
3	Structureâ€"Function Analysis of the Extended Conformation of a Polyketide Synthase Module. Journal of the American Chemical Society, 2018, 140, 6518-6521.	6.6	37
4	Incubation of 2-methylisoborneol synthase with the intermediate analog 2-methylneryl diphosphate. Journal of Antibiotics, 2017, 70, 625-631.	1.0	6
5	Mechanism and Stereochemistry of Polyketide Chain Elongation and Methyl Group Epimerization in Polyether Biosynthesis. Journal of the American Chemical Society, 2017, 139, 3283-3292.	6.6	18
6	Elucidation of the Stereospecificity of C-Methyltransferases from trans-AT Polyketide Synthases. Journal of the American Chemical Society, 2017, 139, 6102-6105.	6.6	19
7	Exploring the Influence of Domain Architecture on the Catalytic Function of Diterpene Synthases. Biochemistry, 2017, 56, 2010-2023.	1.2	56
8	Substitution of Aromatic Residues with Polar Residues in the Active Site Pocket of epi-Isozizaene Synthase Leads to the Generation of New Cyclic Sesquiterpenes. Biochemistry, 2017, 56, 5798-5811.	1.2	21
9	Stereospecific Formation of E- and Z-Disubstituted Double Bonds by Dehydratase Domains from Modules 1 and 2 of the Fostriecin Polyketide Synthase. Journal of the American Chemical Society, 2017, 139, 14322-14330.	6.6	15
10	Elucidation of the Cryptic Methyl Group Epimerase Activity of Dehydratase Domains from Modular Polyketide Synthases Using a Tandem Modules Epimerase Assay. Journal of the American Chemical Society, 2017, 139, 9507-9510.	6.6	18
11	A Turnstile Mechanism for the Controlled Growth of Biosynthetic Intermediates on Assembly Line Polyketide Synthases. ACS Central Science, 2016, 2, 14-20.	5.3	51
12	Probing the Role of Active Site Water in the Sesquiterpene Cyclization Reaction Catalyzed by Aristolochene Synthase. Biochemistry, 2016, 55, 2864-2874.	1.2	22
13	Recognition of acyl carrier proteins by ketoreductases in assembly line polyketide synthases. Journal of Antibiotics, 2016, 69, 507-510.	1.0	15
14	Protein-Protein Interactions, Not Substrate Recognition, Dominate the Turnover of Chimeric Assembly Line Polyketide Synthases. Journal of Biological Chemistry, 2016, 291, 16404-16415.	1.6	55
15	The Cytochrome P450-Catalyzed Oxidative Rearrangement in the Final Step of Pentalenolactone Biosynthesis: Substrate Structure Determines Mechanism. Journal of the American Chemical Society, 2016, 138, 12678-12689.	6.6	23
16	Roles of Conserved Active Site Residues in the Ketosynthase Domain of an Assembly Line Polyketide Synthase. Biochemistry, 2016, 55, 4476-4484.	1.2	50
17	Nature as organic chemist. Journal of Antibiotics, 2016, 69, 473-485.	1.0	4
18	The T296V Mutant of Amorpha-4,11-diene Synthase Is Defective in Allylic Diphosphate Isomerization but Retains the Ability To Cyclize the Intermediate (3R)-Nerolidyl Diphosphate to Amorpha-4,11-diene. Biochemistry, 2016, 55, 6599-6604.	1.2	13

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19	Substitution of a Single Amino Acid Reverses the Regiospecificity of the Baeyerâ€“Villiger Monooxygenase PntE in the Biosynthesis of the Antibiotic Pentalenolactone. Biochemistry, 2016, 55, 6696-6704.	1.2	12
20	Structure and mechanism of assembly line polyketide synthases. Current Opinion in Structural Biology, 2016, 41, 10-18.	2.6	104
21	Structure and Function of Fusicoccadiene Synthase, a Hexameric Bifunctional Diterpene Synthase. ACS Chemical Biology, 2016, 11, 889-899.	1.6	59
22	Epimerase and Reductase Activities of Polyketide Synthase Ketoreductase Domains Utilize the Same Conserved Tyrosine and Serine Residues. Biochemistry, 2016, 55, 1179-1186.	1.2	23
23	Structural Studies of Geosmin Synthase, a Bifunctional Sesquiterpene Synthase with Î±Î± Domain Architecture That Catalyzes a Unique Cyclizationâ€“Fragmentation Reaction Sequence. Biochemistry, 2015, 54, 7142-7155.	1.2	36
24	Novel terpenes generated by heterologous expression of bacterial terpene synthase genes in an engineered Streptomyces host. Journal of Antibiotics, 2015, 68, 385-394.	1.0	66
25	Terpene synthases are widely distributed in bacteria. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 857-862.	3.3	441
26	Elucidation of the Cryptic Epimerase Activity of Redox-Inactive Ketoreductase Domains from Modular Polyketide Synthases by Tandem Equilibrium Isotope Exchange. Journal of the American Chemical Society, 2014, 136, 10190-10193.	6.6	28
27	Reprogramming the Chemodiversity of Terpenoid Cyclization by Remolding the Active Site Contour of epi-Isozizaene Synthase. Biochemistry, 2014, 53, 1155-1168.	1.2	62
28	Assembly Line Polyketide Synthases: Mechanistic Insights and Unsolved Problems. Biochemistry, 2014, 53, 2875-2883.	1.2	114
29	Comparative Analysis of the Substrate Specificity of trans- versus cis-Acyltransferases of Assembly Line Polyketide Synthases. Biochemistry, 2014, 53, 3796-3806.	1.2	45
30	Coupled Methyl Group Epimerization and Reduction by Polyketide Synthase Ketoreductase Domains. Ketoreductase-Catalyzed Equilibrium Isotope Exchange. Journal of the American Chemical Society, 2013, 135, 16324-16327.	6.6	31
31	Mechanistic Insights from the Binding of Substrate and Carbocation Intermediate Analogues to Aristolochene Synthase. Biochemistry, 2013, 52, 5441-5453.	1.2	55
32	In Vitro Reconstitution and Analysis of the 6-Deoxyerythronolide B Synthase. Journal of the American Chemical Society, 2013, 135, 16809-16812.	6.6	70
33	Engineered Streptomyces avermitilis Host for Heterologous Expression of Biosynthetic Gene Cluster for Secondary Metabolites. ACS Synthetic Biology, 2013, 2, 384-396.	1.9	197
34	Stereochemistry of Reductions Catalyzed by Methyl-Epimerizing Ketoreductase Domains of Polyketide Synthases. Journal of the American Chemical Society, 2013, 135, 7406-7409.	6.6	26
35	Structure and Stereospecificity of the Dehydratase Domain from the Terminal Module of the Rifamycin Polyketide Synthase. Biochemistry, 2013, 52, 8916-8928.	1.2	51
36	Unexpected Reactivity of 2-Fluorolinalyl Diphosphate in the Active Site of Crystalline 2-Methylisoborneol Synthase. Biochemistry, 2013, 52, 5247-5255.	1.2	12

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37	Product-Mediated Regulation of Pentalenolactone Biosynthesis in Streptomyces Species by the MarR/SlyA Family Activators PenR and PntR. Journal of Bacteriology, 2013, 195, 1255-1266.	1.0	24
38	Reprogramming a module of the 6-deoxyerythronolide B synthase for iterative chain elongation. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 4110-4115.	3.3	97
39	Diversity and Analysis of Bacterial Terpene Synthases. Methods in Enzymology, 2012, 515, 123-162.	0.4	39
40	Essential Role of the Donor Acyl Carrier Protein in Stereoselective Chain Translocation to a Fully Reducing Module of the Nanchangmycin Polyketide Synthase. Biochemistry, 2012, 51, 879-887.	1.2	13
41	Structure of 2-Methylisoborneol Synthase from Streptomyces coelicolor and Implications for the Cyclization of a Noncanonical C-Methylated Monoterpenoid Substrate. Biochemistry, 2012, 51, 3011-3020.	1.2	42
42	Structure of Geranyl Diphosphate C-Methyltransferase from Streptomyces coelicolor and Implications for the Mechanism of Isoprenoid Modification. Biochemistry, 2012, 51, 3003-3010.	1.2	41
43	Role of a Conserved Arginine Residue in Linkers between the Ketosynthase and Acyltransferase Domains of Multimodular Polyketide Synthases. Biochemistry, 2012, 51, 3708-3710.	1.2	25
44	Favouring the unfavoured. Nature, 2012, 483, 285-286.	13.7	0
45	Exploration and Mining of the Bacterial Terpenome. Accounts of Chemical Research, 2012, 45, 463-472.	7.6	150
46	Exploring the Bacterial Terpenome. FASEB Journal, 2012, 26, 470.1.	0.2	0
47	Structure and Mechanism of the trans-Acting Acyltransferase from the Disorazole Synthase. Biochemistry, 2011, 50, 6539-6548.	1.2	78
48	Genome Mining in Streptomyces. Elucidation of the Role of Baeyerâ^'Villiger Monooxygenases and Non-Heme Iron-Dependent Dehydrogenase/Oxygenases in the Final Steps of the Biosynthesis of Pentalenolactone and Neopentalenolactone. Biochemistry, 2011, 50, 1739-1754.	1.2	65
49	Genome Mining in Streptomyces. Discovery of an Unprecedented P450-Catalyzed Oxidative Rearrangement That Is the Final Step in the Biosynthesis of Pentalenolactone. Journal of the American Chemical Society, 2011, 133, 2128-2131.	6.6	63
50	Improved precursor-directed biosynthesis in E. coli via directed evolution. Journal of Antibiotics, 2011, 64, 59-64.	1.0	19
51	Pentalenic acid is a shunt metabolite in the biosynthesis of the pentalenolactone family of metabolites: hydroxylation of 1-deoxypentalenic acid mediated by CYP105D7 (SAV_7469) of Streptomyces avermitilis. Journal of Antibiotics, 2011, 64, 65-71.	1.0	38
52	Characterization of a silent sesquiterpenoid biosynthetic pathway in Streptomyces avermitilis controlling epiâ€isozizaene albaflavenone biosynthesis and isolation of a new oxidized epiâ€isozizaene metabolite. Microbial Biotechnology, 2011, 4, 184-191.	2.0	64
53	Cloning and characterization of Pfl_1841, a 2-methylenebornane synthase in Pseudomonas fluorescens PfO-1. Tetrahedron, 2011, 67, 6627-6632.	1.0	26
54	Genome Mining in Streptomyces clavuligerus: Expression and Biochemical Characterization of Two New Cryptic Sesquiterpene Synthases. Chemistry and Biology, 2011, 18, 32-37.	6.2	70

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55	Programming of Erythromycin Biosynthesis by a Modular Polyketide Synthase. Journal of Biological Chemistry, 2010, 285, 27517-27523.	1.6	64
56	Molecular recognition between ketosynthase and acyl carrier protein domains of the 6-deoxyerythronolide B synthase. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 22066-22071.	3.3	81
57	Genome Mining in <i>Streptomyces avermitilis</i>: Cloning and Characterization of SAV_76, the Synthase for a New Sesquiterpene, Avermitilol. Journal of the American Chemical Society, 2010, 132, 8850-8851.	6.6	91
58	Structure of Epi-Isozizaene Synthase from <i>Streptomyces coelicolor</i> A3(2), a Platform for New Terpenoid Cyclization Templates[,]. Biochemistry, 2010, 49, 1787-1797.	1.2	137
59	Stereospecificity of the Dehydratase Domain of the Erythromycin Polyketide Synthase. Journal of the American Chemical Society, 2010, 132, 14697-14699.	6.6	64
60	Mechanism and Stereospecificity of a Fully Saturating Polyketide Synthase Module: Nanchangmycin Synthase Module 2 and Its Dehydratase Domain. Journal of the American Chemical Society, 2010, 132, 14694-14696.	6.6	40
61	Genome-minimized <i>Streptomyces</i> host for the heterologous expression of secondary metabolism. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 2646-2651.	3.3	455
62	Crystal Structure of Albaflavenone Monooxygenase Containing a Moonlighting Terpene Synthase Active Site. Journal of Biological Chemistry, 2009, 284, 36711-36719.	1.6	73
63	Chapter 9 The Enzymology of Polyether Biosynthesis. Methods in Enzymology, 2009, 459, 187-214.	0.4	33
64	Revisiting the modularity of modular polyketide synthases. Current Opinion in Chemical Biology, 2009, 13, 135-143.	2.8	83
65	Biosynthesis of the Sesquiterpene Antibiotic Albaflavenone in Streptomyces coelicolor. Mechanism and Stereochemistry of the Enzymatic Formation of Epi-isozizaene. Journal of the American Chemical Society, 2009, 131, 6332-6333.	6.6	82
66	Genome Mining inStreptomyces avermitilis: A Biochemical Baeyerâ˘Villiger Reaction and Discovery of a New Branch of the Pentalenolactone Family Tree. Biochemistry, 2009, 48, 6431-6440.	1.2	60
67	The Biochemical Basis for Stereochemical Control in Polyketide Biosynthesis. Journal of the American Chemical Society, 2009, 131, 18501-18511.	6.6	79
68	Mechanism of Thioesterase-Catalyzed Chain Release in the Biosynthesis of the Polyether Antibiotic Nanchangmycin. Chemistry and Biology, 2008, 15, 449-458.	6.2	44
69	Structural and mechanistic analysis of trichodiene synthase using site-directed mutagenesis: Probing the catalytic function of tyrosine-295 and the asparagine-225/serine-229/glutamate-233a€" <mml:math altimg="si3.gif" display="inline" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.. Archives of Biochemistry a	1.4	71
70	X-ray Crystallographic Studies of Substrate Binding to Aristolochene Synthase Suggest a Metal Ion Binding Sequence for Catalysis. Journal of Biological Chemistry, 2008, 283, 15431-15439.	1.6	67
71	Isolation and Characterization of the Gene Associated with Geosmin Production in Cyanobacteria. Environmental Science & Technology, 2008, 42, 8027-8032.	4.6	106
72	Biochemistry and Molecular Genetics of the Biosynthesis of the Earthy Odorant Methylisoborneol in <i>Streptomyces coelicolor</i>. Journal of the American Chemical Society, 2008, 130, 8908-8909.	6.6	125

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73	Geosmin Biosynthesis. Mechanism of the Fragmentationâ"Rearrangement in the Conversion of Germacradienol to Geosmin. Journal of the American Chemical Society, 2008, 130, 428-429.	6.6	71
74	Stereospecificity of Ketoreductase Domains 1 and 2 of the Tylactone Modular Polyketide Synthase. Journal of the American Chemical Society, 2008, 130, 11598-11599.	6.6	43
75	Identification of (8S,9S,10S)-8,10-Dimethyl-1-octalin, a Key Intermediate in the Biosynthesis of Geosmin in Bacteria. Journal of the American Chemical Society, 2008, 130, 430-431.	6.6	42
76	Biosynthesis of the Sesquiterpene Antibiotic Albaflavenone in Streptomyces coelicolor A3(2). Journal of Biological Chemistry, 2008, 283, 8183-8189.	1.6	147
77	Stereospecificity of Ketoreductase Domains of the 6-Deoxyerythronolide B Synthase. Journal of the American Chemical Society, 2007, 129, 13758-13769.	6.6	81
78	Crystal Structure of the Non-heme Iron Dioxygenase PtlH in Pentalenolactone Biosynthesis. Journal of Biological Chemistry, 2007, 282, 36552-36560.	1.6	27
79	Pentalenolactone biosynthesis: Molecular cloning and assignment of biochemical function to PtlF, a short-chain dehydrogenase from Streptomyces avermitilis, and identification of a new biosynthetic intermediate. Archives of Biochemistry and Biophysics, 2007, 459, 233-240.	1.4	29
80	Exploring biosynthetic diversity with trichodiene synthase. Archives of Biochemistry and Biophysics, 2007, 466, 260-266.	1.4	56
81	Structure and Mechanism of the 6-Deoxyerythronolide B Synthase. Annual Review of Biochemistry, 2007, 76, 195-221.	5.0	282
82	X-ray Crystal Structure of Aristolochene Synthase from Aspergillus terreus and Evolution of Templates for the Cyclization of Farnesyl Diphosphate,. Biochemistry, 2007, 46, 1941-1951.	1.2	161
83	Structure-Based Dissociation of a Type I Polyketide Synthase Module. Chemistry and Biology, 2007, 14, 784-792.	6.2	72
84	Structural and Mechanistic Analysis of Protein Interactions in Module 3 of the 6-Deoxyerythronolide B Synthase. Chemistry and Biology, 2007, 14, 931-943.	6.2	151
85	Biosynthesis of the earthy odorant geosmin by a bifunctional Streptomyces coelicolor enzyme. Nature Chemical Biology, 2007, 3, 711-715.	3.9	209
86	Solution structure and proposed domainâ€"domain recognition interface of an acyl carrier protein domain from a modular polyketide synthase. Protein Science, 2007, 16, 2093-2107.	3.1	107
87	Geosmin Biosynthesis. Streptomyces coelicolor Germacradienol/Germacrene D Synthase Converts Farnesyl Diphosphate to Geosmin. Journal of the American Chemical Society, 2006, 128, 8128-8129.	6.6	138
88	A Gene Cluster for Biosynthesis of the Sesquiterpenoid Antibiotic Pentalenolactone inStreptomyces avermitilisâ€. Biochemistry, 2006, 45, 6179-6186.	1.2	113
89	Pentalenolactone Biosynthesis. Molecular Cloning and Assignment of Biochemical Function to PtlH, A Non-Heme Iron Dioxygenase ofStreptomycesavermitilis. Journal of the American Chemical Society, 2006, 128, 6566-6567.	6.6	37
90	Pentalenolactone Biosynthesis. Molecular Cloning and Assignment of Biochemical Function to PtlI, a Cytochrome P450 ofStreptomyces avermitilis. Journal of the American Chemical Society, 2006, 128, 13036-13037.	6.6	53

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91	Extender Unit and Acyl Carrier Protein Specificity of Ketosynthase Domains of the 6-Deoxyerythronolide B Synthase. Journal of the American Chemical Society, 2006, 128, 3067-3074.	6.6	94
92	Genome Mining inStreptomycescoelicolor:Â Molecular Cloning and Characterization of a New Sesquiterpene Synthase. Journal of the American Chemical Society, 2006, 128, 6022-6023.	6.6	134
93	Brushes with sage. Archives of Biochemistry and Biophysics, 2006, 448, 117-122.	1.4	3
94	Geosmin Biosynthesis in Streptomyces avermitilis. Molecular Cloning, Expression, and Mechanistic Study of the Germacradienol/Geosmin Synthase. Journal of Antibiotics, 2006, 59, 471-479.	1.0	116
95	Modular polyketide synthases: Investigating intermodular communication using 6 deoxyerythronolide B synthase module 2. Bioorganic and Medicinal Chemistry Letters, 2006, 16, 213-216.	1.0	4
96	Identification of NanE as the Thioesterase for Polyether Chain Release in Nanchangmycin Biosynthesis. Chemistry and Biology, 2006, 13, 945-955.	6.2	58
97	Macrolactonization to 10-deoxymethynolide catalyzed by the recombinant thioesterase of the picromycin/methymycin polyketide synthase. Bioorganic and Medicinal Chemistry Letters, 2006, 16, 391-394.	1.0	34
98	The 2.7-A crystal structure of a 194-kDa homodimeric fragment of the 6-deoxyerythronolide B synthase. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 11124-11129.	3.3	259
99	Chain Elongation, Macrolactonization, and Hydrolysis of Natural and Reduced Hexaketide Substrates by the Picromycin/Methymycin Polyketide Synthase. Angewandte Chemie - International Edition, 2005, 44, 7557-7560.	7.2	11
100	Molecular Recognition of the Substrate Diphosphate Group Governs Product Diversity in Trichodiene Synthase Mutants,. Biochemistry, 2005, 44, 6153-6163.	1.2	59
101	Role of Arginine-304 in the Diphosphate-Triggered Active Site Closure Mechanism of Trichodiene Synthase,. Biochemistry, 2005, 44, 12719-12727.	1.2	49
102	Polyketide Double Bond Biosynthesis. Mechanistic Analysis of the Dehydratase-Containing Module 2 of the Picromycin/Methymycin Polyketide Synthase. Journal of the American Chemical Society, 2005, 127, 17393-17404.	6.6	71
103	Reconstituting Modular Activity from Separated Domains of 6-Deoxyerythronolide B Synthaseâ€. Biochemistry, 2004, 43, 13892-13898.	1.2	63
104	Biosynthesis of vitamin B6: direct identification of the product of the PdxA-catalyzed oxidation of 4-hydroxy-l-threonine-4-phosphate using electrospray ionization mass spectrometry. Bioorganic and Medicinal Chemistry Letters, 2004, 14, 1633-1636.	1.0	20
105	Back to Basics. Chemistry and Biology, 2004, 11, 741-743.	6.2	1
106	Aristolochene Synthase:â€‰ Mechanistic Analysis of Active Site Residues by Site-Directed Mutagenesis. Journal of the American Chemical Society, 2004, 126, 7212-7221.	6.6	94
107	Biochemical Analysis of the Substrate Specificity of the Î²-Ketoacyl-Acyl Carrier Protein Synthase Domain of Module 2 of the Erythromycin Polyketide Synthaseâ€. Biochemistry, 2004, 43, 16301-16310.	1.2	42
108	Kinetic Analysis of Escherichia coli 2-C-Methyl-d-erythritol-4-phosphate Cytidyltransferase, Wild Type and Mutants, Reveals Roles of Active Site Amino Acids. Biochemistry, 2004, 43, 12189-12197.	1.2	50

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109	Mechanism and Stereochemistry of the Germacradienol/Germacrene D Synthase ofStreptomycescoelicolorA3(2). Journal of the American Chemical Society, 2004, 126, 2678-2679.	6.6	58
110	Precursor-Directed polyketide biosynthesis in Escherichia coli. Bioorganic and Medicinal Chemistry Letters, 2003, 13, 3701-3704.	1.0	25
111	Functional expression and characterization of eryA, the erythritol kinase of Brucella abortus, and enzymatic synthesis of l-Erythritol-4-phosphate. Bioorganic and Medicinal Chemistry Letters, 2003, 13, 737-739.	1.0	34
112	Mechanistic Analysis of Acyl Transferase Domain Exchange in Polyketide Synthase Modules. Journal of the American Chemical Society, 2003, 125, 5366-5374.	6.6	67
113	Expression and Kinetic Analysis of the Substrate Specificity of Modules 5 and 6 of the Picromycin/Methymycin Polyketide Synthase. Journal of the American Chemical Society, 2003, 125, 5671-5676.	6.6	25
114	Intermodular Communication in Modular Polyketide Synthases:Â Structural and Mutational Analysis of Linker Mediated Proteinâ^'Protein Recognition. Journal of the American Chemical Society, 2003, 125, 4097-4102.	6.6	38
115	Quantitative Analysis of Loading and Extender Acyltransferases of Modular Polyketide Synthasesâ€. Biochemistry, 2003, 42, 200-207.	1.2	42
116	Crystal Structure of Escherichia coli PdxA, an Enzyme Involved in the Pyridoxal Phosphate Biosynthesis Pathway. Journal of Biological Chemistry, 2003, 278, 43682-43690.	1.6	37
117	Understanding Substrate Specificity of Polyketide Synthase Modules by Generating Hybrid Multimodular Synthases. Journal of Biological Chemistry, 2003, 278, 42020-42026.	1.6	65
118	Expression and mechanistic analysis of a germacradienol synthase from Streptomyces coelicolor implicated in geosmin biosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 1547-1551.	3.3	131
119	X-ray Crystal Structures of D100E Trichodiene Synthase and Its Pyrophosphate Complex Reveal the Basis for Terpene Product Diversityâ€,â€¡. Biochemistry, 2002, 41, 1732-1741.	1.2	90
120	Expression, Site-Directed Mutagenesis, and Steady State Kinetic Analysis of the Terminal Thioesterase Domain of the Methymycin/Picromycin Polyketide Synthaseâ€. Biochemistry, 2002, 41, 12590-12597.	1.2	61
121	Insights into Channel Architecture and Substrate Specificity from Crystal Structures of Two Macrocycle-Forming Thioesterases of Modular Polyketide Synthasesâ€,â€¡. Biochemistry, 2002, 41, 12598-12606.	1.2	113
122	Pentalenene Synthase. Analysis of Active Site Residues by Site-Directed Mutagenesis. Journal of the American Chemical Society, 2002, 124, 7681-7689.	6.6	147
123	Quantitative Analysis of the Relative Contributions of Donor Acyl Carrier Proteins, Acceptor Ketosynthases, and Linker Regions to Intermodular Transfer of Intermediates in Hybrid Polyketide Synthases. Biochemistry, 2002, 41, 5056-5066.	1.2	120
124	Precursor-Directed Biosynthesis. Chemistry and Biology, 2002, 9, 131-142.	6.2	53
125	Biosynthesis of Complex Polyketides in a Metabolically Engineered Strain of E. coli. Science, 2001, 291, 1790-1792.	6.0	687
126	Precursor-Directed Biosynthesis of 16-Membered Macrolides by the Erythromycin Polyketide Synthase. Journal of the American Chemical Society, 2001, 123, 2495-2502.	6.6	46

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127	Assessing the Balance between Proteinâ^'Protein Interactions and Enzymeâ^'Substrate Interactions in the Channeling of Intermediates between Polyketide Synthase Modules. Journal of the American Chemical Society, 2001, 123, 6465-6474.	6.6	124
128	Erythromycin biosynthesis. The 4-pro-S hydride of NADPH is utilized for ketoreduction by both module 5 and module 6 of the 6-deoxyerythronolide B synthase. Bioorganic and Medicinal Chemistry Letters, 2001, 11, 1477-1479.	1.0	35
129	Molecular cloning, expression and characterization of the first three genes in the mevalonate-independent isoprenoid pathway in Streptomyces coelicolor. Bioorganic and Medicinal Chemistry, 2001, 9, 1467-1477.	1.4	44
130	Structure of 4-diphosphocytidyl-2-C- methylerythritol synthetase involved in mevalonate- independent isoprenoid biosynthesis. Nature Structural Biology, 2001, 8, 641-648.	9.7	93
131	Enhancing the Atom Economy of Polyketide Biosynthetic Processes through Metabolic Engineering. Biotechnology Progress, 2001, 17, 612-617.	1.3	48
132	Selective Proteinâ^'Protein Interactions Direct Channeling of Intermediates between Polyketide Synthase Modules. Biochemistry, 2001, 40, 2326-2331.	1.2	122
133	Epicubenol synthase. Origin of the oxygen atom of a bacterial sesquiterpene alcohol. Bioorganic and Medicinal Chemistry Letters, 2000, 10, 105-107.	1.0	9
134	Aristolochene Synthase: Purification, Molecular Cloning, High-Level Expression in Escherichia coli, and Characterization of the Aspergillus terreus Cyclase. Archives of Biochemistry and Biophysics, 2000, 376, 354-364.	1.4	69
135	Crystal Structure Determination of Aristolochene Synthase from the Blue Cheese Mold, Penicillium roqueforti*. Journal of Biological Chemistry, 2000, 275, 25533-25539.	1.6	185
136	Biosynthesis of Vitamin B6:â€‰ Origin of the Oxygen Atoms of Pyridoxol Phosphate. Journal of the American Chemical Society, 2000, 122, 4213-4214.	6.6	27
137	Substrate Specificity of the Loading Didomain of the Erythromycin Polyketide Synthaseâ€. Biochemistry, 2000, 39, 10514-10520.	1.2	50
138	Analysis of the Molecular Recognition Features of Individual Modules Derived from the Erythromycin Polyketide Synthase. Journal of the American Chemical Society, 2000, 122, 4847-4852.	6.6	71
139	Sesquiterpene Biosynthesis: Cyclization Mechanisms. , 1999, , 155-200.		106
140	The parallel and convergent universes of polyketide synthases and nonribosomal peptide synthetases. Chemistry and Biology, 1999, 6, R319-R325.	6.2	250
141	Mechanism and specificity of the terminal thioesterase domain from the erythromycin polyketide synthase. Chemistry and Biology, 1999, 6, 117-125.	6.2	140
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