David E Cane

List of Publications by Year
in descending order

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214 papers	16,782 citations	10986 71 h-index	20358 116 g-index
242 all docs	242 docs citations	242 times ranked	6754 citing authors

#	Article	IF	Citations
1	Biosynthesis of Complex Polyketides in a Metabolically Engineered Strain of E. coli. Science, 2001, 291, 1790-1792.	12.6	687
2	Genome-minimized Streptomyces 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.	7.1	455
3	Crystal Structure of Pentalenene Synthase: Mechanistic Insights on Terpenoid Cyclization Reactions in Biology. Science, 1997, 277, 1820-1824.	12.6	447
4	Enzymic formation of sesquiterpenes. Chemical Reviews, 1990, 90, 1089-1103.	47.7	446
5	Terpene synthases are widely distributed in bacteria. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 857-862.	7.1	441
6	Tolerance and Specificity of Polyketide Synthases. Annual Review of Biochemistry, 1999, 68, 219-253.	11.1	348
7	Dissecting and Exploiting Intermodular Communication in Polyketide Synthases. Science, 1999, 284, 482-485.	12.6	330
8	Structure and Mechanism of the 6-Deoxyerythronolide B Synthase. Annual Review of Biochemistry, 2007, 76, 195-221.	11.1	282
9	Precursor-Directed Biosynthesis of Erythromycin Analogs by an Engineered Polyketide Synthase. Science, 1997, 277, 367-369.	12.6	271
10	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.	7.1	259
11	The parallel and convergent universes of polyketide synthases and nonribosomal peptide synthetases. Chemistry and Biology, 1999, 6, R319-R325.	6.0	250
12	Unified stereochemical model of polyether antibiotic structure and biogenesis. Journal of the American Chemical Society, 1983, 105, 3594-3600.	13.7	223
13	Biosynthesis of the earthy odorant geosmin by a bifunctional Streptomyces coelicolor enzyme. Nature Chemical Biology, 2007, 3, 711-715.	8.0	209
14	Engineered Streptomyces avermitilis Host for Heterologous Expression of Biosynthetic Gene Cluster for Secondary Metabolites. ACS Synthetic Biology, 2013, 2, 384-396.	3.8	197
15	Crystal Structure Determination of Aristolochene Synthase from the Blue Cheese Mold, Penicillium roqueforti*. Journal of Biological Chemistry, 2000, 275, 25533-25539.	3.4	185
16	Manipulation of macrolide ring size by directed mutagenesis of a modular polyketide synthase. Journal of the American Chemical Society, 1995, 117, 9105-9106.	13.7	180
17	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.	2.5	161
18	Structural and Mechanistic Analysis of Protein Interactions in Module 3 of the 6-Deoxyerythronolide B Synthase. Chemistry and Biology, 2007, 14, 931-943.	6.0	151

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19	Exploration and Mining of the Bacterial Terpenome. Accounts of Chemical Research, 2012, 45, 463-472.	15.6	150
20	Pentalenene Synthase. Analysis of Active Site Residues by Site-Directed Mutagenesis. Journal of the American Chemical Society, 2002, 124, 7681-7689.	13.7	147
21	Biosynthesis of the Sesquiterpene Antibiotic Albaflavenone in Streptomyces coelicolor A3(2). Journal of Biological Chemistry, 2008, 283, 8183-8189.	3.4	147
22	Macrolide biosynthesis. 4. Intact incorporation of a chain-elongation intermediate into erythromycin.. Journal of the American Chemical Society, 1987, 109, 1255-1257.	13.7	146
23	Pentalenene Synthase. Purification, Molecular Cloning, Sequencing, and High-Level Expression in Escherichia coli of a Terpenoid Cyclase from Streptomyces UC5319. Biochemistry, 1994, 33, 5846-5857.	2.5	142
24	Mechanism and specificity of the terminal thioesterase domain from the erythromycin polyketide synthase. Chemistry and Biology, 1999, 6, 117-125.	6.0	140
25	Isoprenoid biosynthesis. Stereochemistry of the cyclization of allylic pyrophosphates. Accounts of Chemical Research, 1985, 18, 220-226.	15.6	138
26	Geosmin Biosynthesis. Streptomyces coelicolor Germacradienol/Germacrene D Synthase Converts Farnesyl Diphosphate to Geosmin. Journal of the American Chemical Society, 2006, 128, 8128-8129.	13.7	138
27	Structure of Epi-Isozizaene Synthase from Streptomyces coelicolor A3(2), a Platform for New Terpenoid Cyclization Templates[,]. Biochemistry, 2010, 49, 1787-1797.	2.5	137
28	Genome Mining inStreptomycescoelicolor:Â Molecular Cloning and Characterization of a New Sesquiterpene Synthase. Journal of the American Chemical Society, 2006, 128, 6022-6023.	13.7	134
29	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.	7.1	131
30	Biochemistry and Molecular Genetics of the Biosynthesis of the Earthy Odorant Methylisoborneol in Streptomyces coelicolor. Journal of the American Chemical Society, 2008, 130, 8908-8909.	13.7	125
31	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.	13.7	124
32	Selective Proteinâ^'Protein Interactions Direct Channeling of Intermediates between Polyketide Synthase Modules. Biochemistry, 2001, 40, 2326-2331.	2.5	122
33	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.	2.5	120
34	Geosmin Biosynthesis in Streptomyces avermitilis. Molecular Cloning, Expression, and Mechanistic Study of the Germacradienol/Geosmin Synthase. Journal of Antibiotics, 2006, 59, 471-479.	2.0	116
35	Cell-free synthesis of polyketides by recombinant erythromycin polyketide synthases. Nature, 1995, 378, 263-266.	27.8	115
36	Assembly Line Polyketide Synthases: Mechanistic Insights and Unsolved Problems. Biochemistry, 2014, 53, 2875-2883.	2.5	114

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37	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.	2.5	113
38	A Gene Cluster for Biosynthesis of the Sesquiterpenoid Antibiotic Pentalenolactone inStreptomyces avermitilisâ€. Biochemistry, 2006, 45, 6179-6186.	2.5	113
39	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.	7.6	107
40	Sesquiterpene Biosynthesis: Cyclization Mechanisms. , 1999, , 155-200.		106
41	Isolation and Characterization of the Gene Associated with Geosmin Production in Cyanobacteria. Environmental Science & Technology, 2008, 42, 8027-8032.	10.0	106
42	Introduction:Â Polyketide and Nonribosomal Polypeptide Biosynthesis. From Collie toColi. Chemical Reviews, 1997, 97, 2463-2464.	47.7	105
43	Structure and mechanism of assembly line polyketide synthases. Current Opinion in Structural Biology, 2016, 41, 10-18.	5.7	104
44	Biosynthesis of pentalenene and pentalenolactone. Journal of the American Chemical Society, 1990, 112, 4513-4524.	13.7	103
45	Evidence for Two Catalytically Independent Clusters of Active Sites in a Functional Modular Polyketide Synthaseâ€. Biochemistry, 1996, 35, 12363-12368.	2.5	100
46	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.	7.1	97
47	Engineered biosynthesis of a triketide lactone from an incomplete modular polyketide synthase. Journal of the American Chemical Society, 1994, 116, 11612-11613.	13.7	96
48	Trichodiene Synthase. Probing the Role of the Highly Conserved Aspartate-Rich Region by Site-Directed Mutagenesisâ€. Biochemistry, 1996, 35, 12369-12376.	2.5	95
49	Aristolochene Synthase:â€‰ Mechanistic Analysis of Active Site Residues by Site-Directed Mutagenesis. Journal of the American Chemical Society, 2004, 126, 7212-7221.	13.7	94
50	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.	13.7	94
51	Structure of 4-diphosphocytidyl-2-C- methylerythritol synthetase involved in mevalonate- independent isoprenoid biosynthesis. Nature Structural Biology, 2001, 8, 641-648.	9.7	93
52	Stereochemical studies of isoprenoid biosynthesis. Biosynthesis of pentalenolactone from [U-13C6]glucose and [6-2H2]glucose. Journal of the American Chemical Society, 1981, 103, 1838-1843.	13.7	92
53	Genome Mining in Streptomyces avermitilis: Cloning and Characterization of SAV_76, the Synthase for a New Sesquiterpene, Avermitilol. Journal of the American Chemical Society, 2010, 132, 8850-8851.	13.7	91
54	Cyclonerodiol biosynthesis and the enzymic conversion of farnesyl to nerolidyl pyrophosphate. Journal of the American Chemical Society, 1981, 103, 914-931.	13.7	90

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55	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.	2.5	90
56	Engineered Biosynthesis of Structurally Diverse Tetraketides by a Trimodular Polyketide Synthase. Journal of the American Chemical Society, 1996, 118, 9184-9185.	13.7	86
57	Revisiting the modularity of modular polyketide synthases. Current Opinion in Chemical Biology, 2009, 13, 135-143.	6.1	83
58	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.	13.7	82
59	[44] Monoterpene and sesquiterpene cyclases. Methods in Enzymology, 1985, 110, 383-405.	1.0	81
60	Alcohol Stereochemistry in Polyketide Backbones Is Controlled by the Î²-Ketoreductase Domains of Modular Polyketide Synthases. Journal of the American Chemical Society, 1998, 120, 2478-2479.	13.7	81
61	Dissecting the Role of Acyltransferase Domains of Modular Polyketide Synthases in the Choice and Stereochemical Fate of Extender Units. Biochemistry, 1999, 38, 1643-1651.	2.5	81
62	Biosynthesis of Vitamin B6:â€‰ Enzymatic Conversion of 1-Deoxy-d-xylulose-5-phosphate to Pyridoxol Phosphate. Journal of the American Chemical Society, 1999, 121, 7722-7723.	13.7	81
63	Stereospecificity of Ketoreductase Domains of the 6-Deoxyerythronolide B Synthase. Journal of the American Chemical Society, 2007, 129, 13758-13769.	13.7	81
64	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.	7.1	81
65	Polyether biosynthesis. 2. Origin of the oxygen atoms of monensin A. Journal of the American Chemical Society, 1982, 104, 7274-7281.	13.7	79
66	Gain of Function Mutagenesis of the Erythromycin Polyketide Synthase. 2. Engineered Biosynthesis of an Eight-Membered Ring Tetraketide Lactone. Journal of the American Chemical Society, 1997, 119, 11339-11340.	13.7	79
67	The Biochemical Basis for Stereochemical Control in Polyketide Biosynthesis. Journal of the American Chemical Society, 2009, 131, 18501-18511.	13.7	79
68	Structure and Mechanism of the trans-Acting Acyltransferase from the Disorazole Synthase. Biochemistry, 2011, 50, 6539-6548.	2.5	78
69	Gain-of-Function Mutagenesis of a Modular Polyketide Synthase. Journal of the American Chemical Society, 1997, 119, 4309-4310.	13.7	77
70	Pre-Steady-State Kinetic Analysis of the Trichodiene Synthase Reaction Pathway. Biochemistry, 1997, 36, 8332-8339.	2.5	75
71	Aristolochene biosynthesis. Stereochemistry of the deprotonation steps in the enzymatic cyclization of farnesyl pyrophosphate. Journal of the American Chemical Society, 1990, 112, 3209-3210.	13.7	73
72	Crystal Structure of Albaflavenone Monooxygenase Containing a Moonlighting Terpene Synthase Active Site. Journal of Biological Chemistry, 2009, 284, 36711-36719.	3.4	73

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73	Structure-Based Dissociation of a Type I Polyketide Synthase Module. Chemistry and Biology, 2007, 14, 784-792.	6.0	72
74	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.	13.7	71
75	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, 17308-17309.	13.7	71
76	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-233â€“<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	3.0	71
77	Geosmin Biosynthesis. Mechanism of the Fragmentationâ^'Rearrangement in the Conversion of Germacradienol to Geosmin. Journal of the American Chemical Society, 2008, 130, 428-429.	13.7	71
78	Trichodiene Synthase. Identification of Active Site Residues by Site-Directed Mutagenesis. Biochemistry, 1995, 34, 2480-2488.	2.5	70
79	Genome Mining in Streptomyces clavuligerus: Expression and Biochemical Characterization of Two New Cryptic Sesquiterpene Synthases. Chemistry and Biology, 2011, 18, 32-37.	6.0	70
80	In Vitro Reconstitution and Analysis of the 6-Deoxyerythronolide B Synthase. Journal of the American Chemical Society, 2013, 135, 16809-16812.	13.7	70
81	Isotopically sensitive branching in the formation of cyclic monoterpenes: proof that (-)-.alpha.-pinene and (-)-.beta.-pinene are synthesized by the same monoterpene cyclase via deprotonation of a common intermediate. Biochemistry, 1987, 26, 5383-5389.	2.5	69
82	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.	3.0	69
83	Macrolide biosynthesis. 7. Incorporation of polyketide chain elongation intermediates into methymycin. Journal of the American Chemical Society, 1993, 115, 522-526.	13.7	68
84	Mechanistic Analysis of Acyl Transferase Domain Exchange in Polyketide Synthase Modules. Journal of the American Chemical Society, 2003, 125, 5366-5374.	13.7	67
85	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.	3.4	67
86	Aristolochene biosynthesis and enzymatic cyclization of farnesyl pyrophosphate. Journal of the American Chemical Society, 1989, 111, 8914-8916.	13.7	66
87	Novel terpenes generated by heterologous expression of bacterial terpene synthase genes in an engineered Streptomyces host. Journal of Antibiotics, 2015, 68, 385-394.	2.0	66
88	Understanding Substrate Specificity of Polyketide Synthase Modules by Generating Hybrid Multimodular Synthases. Journal of Biological Chemistry, 2003, 278, 42020-42026.	3.4	65
89	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.	2.5	65
90	A functional chimeric modular polyketide synthase generated via domain replacement. Chemistry and Biology, 1996, 3, 827-831.	6.0	64

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91	Programming of Erythromycin Biosynthesis by a Modular Polyketide Synthase. Journal of Biological Chemistry, 2010, 285, 27517-27523.	3.4	64
92	Stereospecificity of the Dehydratase Domain of the Erythromycin Polyketide Synthase. Journal of the American Chemical Society, 2010, 132, 14697-14699.	13.7	64
93	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.	4.2	64
94	Reconstituting Modular Activity from Separated Domains of 6-Deoxyerythronolide B Synthaseâ€. Biochemistry, 2004, 43, 13892-13898.	2.5	63
95	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.	13.7	63
96	Reprogramming the Chemodiversity of Terpenoid Cyclization by Remolding the Active Site Contour of epi-Isozizaene Synthase. Biochemistry, 2014, 53, 1155-1168.	2.5	62
97	Mechanism of the pyrophosphate migration in the enzymic cyclization of geranyl and linalyl pyrophosphates to (+)- and (-)-bornyl pyrophosphates. Biochemistry, 1985, 24, 7077-7085.	2.5	61
98	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.	2.5	61
99	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.	2.5	60
100	Molecular Recognition of the Substrate Diphosphate Group Governs Product Diversity in Trichodiene Synthase Mutants,. Biochemistry, 2005, 44, 6153-6163.	2.5	59
101	Structure and Function of Fusicoccadiene Synthase, a Hexameric Bifunctional Diterpene Synthase. ACS Chemical Biology, 2016, 11, 889-899.	3.4	59
102	Mechanism and Stereochemistry of the Germacradienol/Germacrene D Synthase ofStreptomycescoelicolorA3(2). Journal of the American Chemical Society, 2004, 126, 2678-2679.	13.7	58
103	Identification of NanE as the Thioesterase for Polyether Chain Release in Nanchangmycin Biosynthesis. Chemistry and Biology, 2006, 13, 945-955.	6.0	58
104	Enzymic cyclization of geranyl pyrophosphate to bornyl pyrophosphate. Role of the pyrophosphate moiety. Journal of the American Chemical Society, 1982, 104, 5831-5833.	13.7	57
105	Trichodiene synthase. Synergistic inhibition by inorganic pyrophosphate and aza analogs of the bisabolyl cation.. Journal of Organic Chemistry, 1992, 57, 3454-3462.	3.2	57
106	Exploring biosynthetic diversity with trichodiene synthase. Archives of Biochemistry and Biophysics, 2007, 466, 260-266.	3.0	56
107	Exploring the Influence of Domain Architecture on the Catalytic Function of Diterpene Synthases. Biochemistry, 2017, 56, 2010-2023.	2.5	56
108	Isolation and characterization of 10-deoxymethynolide produced by Streptomyces venezuelae.. Journal of Antibiotics, 1992, 45, 1981-1982.	2.0	55

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109	Mechanistic Insights from the Binding of Substrate and Carbocation Intermediate Analogues to Aristolochene Synthase. Biochemistry, 2013, 52, 5441-5453.	2.5	55
110	Protein-Protein Interactions, Not Substrate Recognition, Dominate the Turnover of Chimeric Assembly Line Polyketide Synthases. Journal of Biological Chemistry, 2016, 291, 16404-16415.	3.4	55
111	Aristolochene Synthase. Elucidation of the Cryptic Germacrene A Synthase Activity Using the Anomalous Substrate Dihydrofarnesyl Diphosphate. Journal of the American Chemical Society, 1996, 118, 10037-10040.	13.7	54
112	Pentalenene Synthase. Histidine-309 Is Not Required for Catalytic Activity. Journal of the American Chemical Society, 1999, 121, 591-592.	13.7	54
113	Trichodiene biosynthesis and the role of nerolidyl pyrophosphate in the enzymic cyclization of farnesyl pyrophosphate. Journal of the American Chemical Society, 1988, 110, 6865-6870.	13.7	53
114	Remarkably broad substrate specificity of a modular polyketide synthase in a cell-free system. Journal of the American Chemical Society, 1995, 117, 11373-11374.	13.7	53
115	Precursor-Directed Biosynthesis. Chemistry and Biology, 2002, 9, 131-142.	6.0	53
116	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.	13.7	53
117	Pentalenene biosynthesis and the enzymic cyclization of farnesyl pyrophosphate. Journal of the American Chemical Society, 1983, 105, 122-124.	13.7	52
118	Structure and Stereospecificity of the Dehydratase Domain from the Terminal Module of the Rifamycin Polyketide Synthase. Biochemistry, 2013, 52, 8916-8928.	2.5	51
119	A Turnstile Mechanism for the Controlled Growth of Biosynthetic Intermediates on Assembly Line Polyketide Synthases. ACS Central Science, 2016, 2, 14-20.	11.3	51
120	Biosynthesis of Vitamin B6:Â The Oxidation of 4-(Phosphohydroxy)-l-threonine by PdxA. Journal of the American Chemical Society, 1998, 120, 1936-1937.	13.7	50
121	Substrate Specificity of the Loading Didomain of the Erythromycin Polyketide Synthaseâ€. Biochemistry, 2000, 39, 10514-10520.	2.5	50
122	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.	2.5	50
123	Roles of Conserved Active Site Residues in the Ketosynthase Domain of an Assembly Line Polyketide Synthase. Biochemistry, 2016, 55, 4476-4484.	2.5	50
124	Epicubenol Synthase and the Stereochemistry of the Enzymic Cyclization of Farnesyl and Nerolidyl Diphosphate. Journal of the American Chemical Society, 1995, 117, 5602-5603.	13.7	49
125	Purification and Characterization of Bimodular and Trimodular Derivatives of the Erythromycin Polyketide Synthaseâ€. Biochemistry, 1997, 36, 1846-1851.	2.5	49
126	Role of Arginine-304 in the Diphosphate-Triggered Active Site Closure Mechanism of Trichodiene Synthase,. Biochemistry, 2005, 44, 12719-12727.	2.5	49

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127	Trichodiene biosynthesis and the enzymic cyclization of farnesyl pyrophosphate. Journal of the American Chemical Society, 1981, 103, 2136-2138.	13.7	48
128	Trichodiene Synthase. Enzymatic Formation of Multiple Sesquiterpenes by Alteration of the Cyclase Active Site. Journal of the American Chemical Society, 1996, 118, 1563-1564.	13.7	48
129	Erythromycin Biosynthesis:Â The Î²-Ketoreductase Domains Catalyze the Stereospecific Transfer of the 4-pro-SHydride of NADPH. Journal of the American Chemical Society, 1998, 120, 3267-3268.	13.7	48
130	Enhancing the Atom Economy of Polyketide Biosynthetic Processes through Metabolic Engineering. Biotechnology Progress, 2001, 17, 612-617.	2.6	48
131	Functional Orientation of the Acyltransferase Domain in a Module of the Erythromycin Polyketide Synthaseâ€. Biochemistry, 1998, 37, 2524-2528.	2.5	46
132	Precursor-Directed Biosynthesis of 16-Membered Macrolides by the Erythromycin Polyketide Synthase. Journal of the American Chemical Society, 2001, 123, 2495-2502.	13.7	46
133	Comparative Analysis of the Substrate Specificity of trans- versus cis-Acyltransferases of Assembly Line Polyketide Synthases. Biochemistry, 2014, 53, 3796-3806.	2.5	45
134	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.	3.0	44
135	Mechanism of Thioesterase-Catalyzed Chain Release in the Biosynthesis of the Polyether Antibiotic Nanchangmycin. Chemistry and Biology, 2008, 15, 449-458.	6.0	44
136	Trichodiene Synthase. Substrate Specificity and Inhibition. Biochemistry, 1995, 34, 2471-2479.	2.5	43
137	Molecular recognition of diketide substrates by a Î²-ketoacyl-acyl carrier protein synthase domain within a bimodular polyketide synthase. Chemistry and Biology, 1997, 4, 757-766.	6.0	43
138	Precursor-directed biosynthesis of 12-ethyl erythromycin. Bioorganic and Medicinal Chemistry, 1998, 6, 1171-1177.	3.0	43
139	Stereospecificity of Ketoreductase Domains 1 and 2 of the Tylactone Modular Polyketide Synthase. Journal of the American Chemical Society, 2008, 130, 11598-11599.	13.7	43
140	High Level Expression ofRicinus communisCasbene Synthase inEscherichia coliand Characterization of the Recombinant Enzyme. Archives of Biochemistry and Biophysics, 1996, 336, 283-289.	3.0	42
141	Quantitative Analysis of Loading and Extender Acyltransferases of Modular Polyketide Synthasesâ€. Biochemistry, 2003, 42, 200-207.	2.5	42
142	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.	2.5	42
143	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.	13.7	42
144	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.	2.5	42

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145	Inhibition of glyceraldehyde-3-phosphate dehydrogenase by pentalenolactone: Kinetic and mechanistic studies. Archives of Biochemistry and Biophysics, 1989, 270, 50-61.	3.0	41
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