

David E Cane

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

214 papers	14,404 citations	68 h-index	107 g-index
242 ext. papers	15,740 ext. citations	10.5 avg, IF	6.44 L-index

#	Paper	IF	Citations
214	Stereospecific Formation of Z-Trisubstituted Double Bonds by the Successive Action of Ketoreductase and Dehydratase Domains from trans-AT Polyketide Synthases. <i>Biochemistry</i> , 2018 , 57, 3126-3129	3.2	6
213	pH-Rate profiles establish that polyketide synthase dehydratase domains utilize a single-base mechanism. <i>Organic and Biomolecular Chemistry</i> , 2018 , 16, 9165-9170	3.9	10
212	Structure-Function Analysis of the Extended Conformation of a Polyketide Synthase Module. <i>Journal of the American Chemical Society</i> , 2018 , 140, 6518-6521	16.4	27
211	Incubation of 2-methylisoborneol synthase with the intermediate analog 2-methylneryl diphosphate. <i>Journal of Antibiotics</i> , 2017 , 70, 625-631	3.7	6
210	Mechanism and Stereochemistry of Polyketide Chain Elongation and Methyl Group Epimerization in Polyether Biosynthesis. <i>Journal of the American Chemical Society</i> , 2017 , 139, 3283-3292	16.4	14
209	Elucidation of the Stereospecificity of C-Methyltransferases from trans-AT Polyketide Synthases. <i>Journal of the American Chemical Society</i> , 2017 , 139, 6102-6105	16.4	12
208	Exploring the Influence of Domain Architecture on the Catalytic Function of Diterpene Synthases. <i>Biochemistry</i> , 2017 , 56, 2010-2023	3.2	35
207	Substitution of Aromatic Residues with Polar Residues in the Active Site Pocket of epi-Isozizaene Synthase Leads to the Generation of New Cyclic Sesquiterpenes. <i>Biochemistry</i> , 2017 , 56, 5798-5811	3.2	12
206	Stereospecific Formation of E- and Z-Disubstituted Double Bonds by Dehydratase Domains from Modules 1 and 2 of the Fostriecin Polyketide Synthase. <i>Journal of the American Chemical Society</i> , 2017 , 139, 14322-14330	16.4	10
205	Elucidation of the Cryptic Methyl Group Epimerase Activity of Dehydratase Domains from Modular Polyketide Synthases Using a Tandem Modules Epimerase Assay. <i>Journal of the American Chemical Society</i> , 2017 , 139, 9507-9510	16.4	15
204	The Cytochrome P450-Catalyzed Oxidative Rearrangement in the Final Step of Pentalenolactone Biosynthesis: Substrate Structure Determines Mechanism. <i>Journal of the American Chemical Society</i> , 2016 , 138, 12678-89	16.4	16
203	Roles of Conserved Active Site Residues in the Ketosynthase Domain of an Assembly Line Polyketide Synthase. <i>Biochemistry</i> , 2016 , 55, 4476-84	3.2	26
202	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. <i>Biochemistry</i> , 2016 , 55, 6599-6604	3.2	10
201	Substitution of a Single Amino Acid Reverses the Regiospecificity of the Baeyer-Villiger Monooxygenase PntE in the Biosynthesis of the Antibiotic Pentalenolactone. <i>Biochemistry</i> , 2016 , 55, 6696-6704	3.2	10
200	Structure and mechanism of assembly line polyketide synthases. <i>Current Opinion in Structural Biology</i> , 2016 , 41, 10-18	8.1	81
199	Structure and Function of Fusicoccadiene Synthase, a Hexameric Bifunctional Diterpene Synthase. <i>ACS Chemical Biology</i> , 2016 , 11, 889-99	4.9	39
198	Epimerase and Reductase Activities of Polyketide Synthase Ketoreductase Domains Utilize the Same Conserved Tyrosine and Serine Residues. <i>Biochemistry</i> , 2016 , 55, 1179-86	3.2	18

197	A Turnstile Mechanism for the Controlled Growth of Biosynthetic Intermediates on Assembly Line Polyketide Synthases. <i>ACS Central Science</i> , 2016 , 2, 14-20	16.8	33
196	Probing the Role of Active Site Water in the Sesquiterpene Cyclization Reaction Catalyzed by Aristolochene Synthase. <i>Biochemistry</i> , 2016 , 55, 2864-74	3.2	19
195	Recognition of acyl carrier proteins by ketoreductases in assembly line polyketide synthases. <i>Journal of Antibiotics</i> , 2016 , 69, 507-10	3.7	11
194	Protein-Protein Interactions, Not Substrate Recognition, Dominate the Turnover of Chimeric Assembly Line Polyketide Synthases. <i>Journal of Biological Chemistry</i> , 2016 , 291, 16404-15	5.4	40
193	Terpene synthases are widely distributed in bacteria. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 857-62	11.5	286
192	Structural Studies of Geosmin Synthase, a Bifunctional Sesquiterpene Synthase with IDomain Architecture That Catalyzes a Unique Cyclization-Fragmentation Reaction Sequence. <i>Biochemistry</i> , 2015 , 54, 7142-55	3.2	28
191	Novel terpenes generated by heterologous expression of bacterial terpene synthase genes in an engineered Streptomyces host. <i>Journal of Antibiotics</i> , 2015 , 68, 385-94	3.7	51
190	Elucidation of the cryptic epimerase activity of redox-inactive ketoreductase domains from modular polyketide synthases by tandem equilibrium isotope exchange. <i>Journal of the American Chemical Society</i> , 2014 , 136, 10190-3	16.4	22
189	Reprogramming the chemodiversity of terpenoid cyclization by remolding the active site contour of epi-isozizaene synthase. <i>Biochemistry</i> , 2014 , 53, 1155-68	3.2	43
188	Assembly line polyketide synthases: mechanistic insights and unsolved problems. <i>Biochemistry</i> , 2014 , 53, 2875-83	3.2	93
187	Comparative analysis of the substrate specificity of trans- versus cis-acyltransferases of assembly line polyketide synthases. <i>Biochemistry</i> , 2014 , 53, 3796-806	3.2	39
186	Coupled methyl group epimerization and reduction by polyketide synthase ketoreductase domains. Ketoreductase-catalyzed equilibrium isotope exchange. <i>Journal of the American Chemical Society</i> , 2013 , 135, 16324-7	16.4	28
185	Mechanistic insights from the binding of substrate and carbocation intermediate analogues to aristolochene synthase. <i>Biochemistry</i> , 2013 , 52, 5441-53	3.2	44
184	In vitro reconstitution and analysis of the 6-deoxyerythronolide B synthase. <i>Journal of the American Chemical Society</i> , 2013 , 135, 16809-12	16.4	52
183	Engineered Streptomyces avermitilis host for heterologous expression of biosynthetic gene cluster for secondary metabolites. <i>ACS Synthetic Biology</i> , 2013 , 2, 384-96	5.7	170
182	Stereochemistry of reductions catalyzed by methyl-epimerizing ketoreductase domains of polyketide synthases. <i>Journal of the American Chemical Society</i> , 2013 , 135, 7406-9	16.4	23
181	Structure and stereospecificity of the dehydratase domain from the terminal module of the rifamycin polyketide synthase. <i>Biochemistry</i> , 2013 , 52, 8916-28	3.2	43
180	Unexpected reactivity of 2-fluorolinalyl diphosphate in the active site of crystalline 2-methylisoborneol synthase. <i>Biochemistry</i> , 2013 , 52, 5247-55	3.2	10

179	Product-mediated regulation of pentalenolactone biosynthesis in <i>Streptomyces</i> species by the MarR/SlyA family activators PenR and PntR. <i>Journal of Bacteriology</i> , 2013 , 195, 1255-66	3.5	20
178	Diversity and analysis of bacterial terpene synthases. <i>Methods in Enzymology</i> , 2012 , 515, 123-62	1.7	33
177	Essential role of the donor acyl carrier protein in stereoselective chain translocation to a fully reducing module of the nanchangmycin polyketide synthase. <i>Biochemistry</i> , 2012 , 51, 879-87	3.2	13
176	Structure of 2-methylisoborneol synthase from <i>Streptomyces coelicolor</i> and implications for the cyclization of a noncanonical C-methylated monoterpenoid substrate. <i>Biochemistry</i> , 2012 , 51, 3011-20	3.2	32
175	Structure of geranyl diphosphate C-methyltransferase from <i>Streptomyces coelicolor</i> and implications for the mechanism of isoprenoid modification. <i>Biochemistry</i> , 2012 , 51, 3003-10	3.2	27
174	Role of a conserved arginine residue in linkers between the ketosynthase and acyltransferase domains of multimodular polyketide synthases. <i>Biochemistry</i> , 2012 , 51, 3708-10	3.2	22
173	Biochemistry: favouring the unfavoured. <i>Nature</i> , 2012 , 483, 285-6	50.4	
172	Exploration and mining of the bacterial terpenome. <i>Accounts of Chemical Research</i> , 2012 , 45, 463-72	24.3	132
171	Reprogramming a module of the 6-deoxyerythronolide B synthase for iterative chain elongation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012 , 109, 4110-5	11.5	81
170	Exploring the Bacterial Terpenome. <i>FASEB Journal</i> , 2012 , 26, 470.1	0.9	
169	Genome mining in <i>Streptomyces</i> . Elucidation of the role of Baeyer-Villiger monooxygenases and non-heme iron-dependent dehydrogenase/oxygenases in the final steps of the biosynthesis of pentalenolactone and neopentalenolactone. <i>Biochemistry</i> , 2011 , 50, 1739-54	3.2	58
168	Genome mining in streptomyces. Discovery of an unprecedented P450-catalyzed oxidative rearrangement that is the final step in the biosynthesis of pentalenolactone. <i>Journal of the American Chemical Society</i> , 2011 , 133, 2128-31	16.4	51
167	Improved precursor-directed biosynthesis in <i>E. coli</i> via directed evolution. <i>Journal of Antibiotics</i> , 2011 , 64, 59-64	3.7	18
166	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 <i>Streptomyces avermitilis</i> . <i>Journal of Antibiotics</i> , 2011 , 64, 65-71	3.7	33
165	Characterization of a silent sesquiterpenoid biosynthetic pathway in <i>Streptomyces avermitilis</i> controlling epi-isozizaene albaflavenone biosynthesis and isolation of a new oxidized epi-isozizaene metabolite. <i>Microbial Biotechnology</i> , 2011 , 4, 184-91	6.3	56
164	Cloning and characterization of PFL_1841, a 2-methylenebornane synthase in <i>Pseudomonas fluorescens</i> PFO-1. <i>Tetrahedron</i> , 2011 , 67, 6627-6632	2.4	24
163	Genome mining in <i>Streptomyces clavuligerus</i> : expression and biochemical characterization of two new cryptic sesquiterpene synthases. <i>Chemistry and Biology</i> , 2011 , 18, 32-7		63
162	Structure and mechanism of the trans-acting acyltransferase from the disorazole synthase. <i>Biochemistry</i> , 2011 , 50, 6539-48	3.2	64

161	Programming of erythromycin biosynthesis by a modular polyketide synthase. <i>Journal of Biological Chemistry</i> , 2010 , 285, 27517-23	5.4	59
160	Molecular recognition between ketosynthase and acyl carrier protein domains of the 6-deoxyerythronolide B synthase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010 , 107, 22066-71	11.5	68
159	Genome mining in <i>Streptomyces avermitilis</i> : cloning and characterization of SAV_76, the synthase for a new sesquiterpene, avermitilol. <i>Journal of the American Chemical Society</i> , 2010 , 132, 8850-1	16.4	79
158	Structure of epi-isozizaene synthase from <i>Streptomyces coelicolor</i> A3(2), a platform for new terpenoid cyclization templates. <i>Biochemistry</i> , 2010 , 49, 1787-97	3.2	114
157	Stereospecificity of the dehydratase domain of the erythromycin polyketide synthase. <i>Journal of the American Chemical Society</i> , 2010 , 132, 14697-9	16.4	58
156	Mechanism and stereospecificity of a fully saturating polyketide synthase module: nanchangmycin synthase module 2 and its dehydratase domain. <i>Journal of the American Chemical Society</i> , 2010 , 132, 14694-6	16.4	36
155	Genome-minimized <i>Streptomyces</i> host for the heterologous expression of secondary metabolism. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010 , 107, 2646-51	11.5	377
154	Crystal structure of albaflavenone monooxygenase containing a moonlighting terpene synthase active site. <i>Journal of Biological Chemistry</i> , 2009 , 284, 36711-36719	5.4	69
153	The enzymology of polyether biosynthesis. <i>Methods in Enzymology</i> , 2009 , 459, 187-214	1.7	30
152	Revisiting the modularity of modular polyketide synthases. <i>Current Opinion in Chemical Biology</i> , 2009 , 13, 135-43	9.7	78
151	Biosynthesis of the sesquiterpene antibiotic albaflavenone in <i>Streptomyces coelicolor</i> . Mechanism and stereochemistry of the enzymatic formation of epi-isozizaene. <i>Journal of the American Chemical Society</i> , 2009 , 131, 6332-3	16.4	70
150	Genome mining in <i>Streptomyces avermitilis</i> : A biochemical Baeyer-Villiger reaction and discovery of a new branch of the pentalenolactone family tree. <i>Biochemistry</i> , 2009 , 48, 6431-40	3.2	54
149	The biochemical basis for stereochemical control in polyketide biosynthesis. <i>Journal of the American Chemical Society</i> , 2009 , 131, 18501-11	16.4	69
148	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-233-Mg ²⁺ +B motif. <i>Archives of Biochemistry and Biophysics</i> , 2008 , 463, 184-94	4.1	62
147	X-ray crystallographic studies of substrate binding to aristolochene synthase suggest a metal ion binding sequence for catalysis. <i>Journal of Biological Chemistry</i> , 2008 , 283, 15431-9	5.4	63
146	Isolation and characterization of the gene associated with geosmin production in cyanobacteria. <i>Environmental Science & Technology</i> , 2008 , 42, 8027-32	10.3	92
145	Biochemistry and molecular genetics of the biosynthesis of the earthy odorant methylisoborneol in <i>Streptomyces coelicolor</i> . <i>Journal of the American Chemical Society</i> , 2008 , 130, 8908-9	16.4	105
144	Geosmin biosynthesis. Mechanism of the fragmentation-rearrangement in the conversion of germacradienol to geosmin. <i>Journal of the American Chemical Society</i> , 2008 , 130, 428-9	16.4	56

143	Stereospecificity of ketoreductase domains 1 and 2 of the tylactone modular polyketide synthase. <i>Journal of the American Chemical Society</i> , 2008 , 130, 11598-9	16.4	39
142	Identification of (8S,9S,10S)-8,10-dimethyl-1-octalin, a key intermediate in the biosynthesis of geosmin in bacteria. <i>Journal of the American Chemical Society</i> , 2008 , 130, 430-1	16.4	34
141	Biosynthesis of the sesquiterpene antibiotic albaflavenone in <i>Streptomyces coelicolor</i> A3(2). <i>Journal of Biological Chemistry</i> , 2008 , 283, 8183-9	5.4	126
140	Mechanism of thioesterase-catalyzed chain release in the biosynthesis of the polyether antibiotic nanchangmycin. <i>Chemistry and Biology</i> , 2008 , 15, 449-58		39
139	X-ray crystal structure of aristolochene synthase from <i>Aspergillus terreus</i> and evolution of templates for the cyclization of farnesyl diphosphate. <i>Biochemistry</i> , 2007 , 46, 1941-51	3.2	123
138	Structure-based dissociation of a type I polyketide synthase module. <i>Chemistry and Biology</i> , 2007 , 14, 784-92		64
137	Structural and mechanistic analysis of protein interactions in module 3 of the 6-deoxyerythronolide B synthase. <i>Chemistry and Biology</i> , 2007 , 14, 931-43		126
136	Biosynthesis of the earthy odorant geosmin by a bifunctional <i>Streptomyces coelicolor</i> enzyme. <i>Nature Chemical Biology</i> , 2007 , 3, 711-5	11.7	170
135	Solution structure and proposed domain domain recognition interface of an acyl carrier protein domain from a modular polyketide synthase. <i>Protein Science</i> , 2007 , 16, 2093-107	6.3	92
134	Stereospecificity of ketoreductase domains of the 6-deoxyerythronolide B synthase. <i>Journal of the American Chemical Society</i> , 2007 , 129, 13758-69	16.4	75
133	Crystal structure of the non-heme iron dioxygenase PtlH in pentalenolactone biosynthesis. <i>Journal of Biological Chemistry</i> , 2007 , 282, 36552-60	5.4	24
132	Pentalenolactone biosynthesis: Molecular cloning and assignment of biochemical function to PtlF, a short-chain dehydrogenase from <i>Streptomyces avermitilis</i> , and identification of a new biosynthetic intermediate. <i>Archives of Biochemistry and Biophysics</i> , 2007 , 459, 233-40	4.1	25
131	Exploring biosynthetic diversity with trichodiene synthase. <i>Archives of Biochemistry and Biophysics</i> , 2007 , 466, 260-6	4.1	50
130	Structure and mechanism of the 6-deoxyerythronolide B synthase. <i>Annual Review of Biochemistry</i> , 2007 , 76, 195-221	29.1	243
129	Macrolactonization to 10-deoxymethynolide catalyzed by the recombinant thioesterase of the picromycin/methymycin polyketide synthase. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2006 , 16, 391-4 ^{2.9}		30
128	The 2.7-Angstrom crystal structure of a 194-kDa homodimeric fragment of the 6-deoxyerythronolide B synthase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006 , 103, 11124-9	11.5	218
127	Geosmin biosynthesis. <i>Streptomyces coelicolor</i> germacradienol/germacrene D synthase converts farnesyl diphosphate to geosmin. <i>Journal of the American Chemical Society</i> , 2006 , 128, 8128-9	16.4	103
126	A gene cluster for biosynthesis of the sesquiterpenoid antibiotic pentalenolactone in <i>Streptomyces avermitilis</i> . <i>Biochemistry</i> , 2006 , 45, 6179-86	3.2	97

125	Pentalenolactone biosynthesis. Molecular cloning and assignment of biochemical function to PtlH, a non-heme iron dioxxygenase of <i>Streptomyces avermitilis</i> . <i>Journal of the American Chemical Society</i> , 2006 , 128, 6566-7	16.4	33
124	Pentalenolactone biosynthesis. Molecular cloning and assignment of biochemical function to PtlI, a cytochrome P450 of <i>Streptomyces avermitilis</i> . <i>Journal of the American Chemical Society</i> , 2006 , 128, 13036-7	16.4	47
123	Extender unit and acyl carrier protein specificity of ketosynthase domains of the 6-deoxyerythronolide B synthase. <i>Journal of the American Chemical Society</i> , 2006 , 128, 3067-74	16.4	80
122	Genome mining in <i>Streptomyces coelicolor</i> : molecular cloning and characterization of a new sesquiterpene synthase. <i>Journal of the American Chemical Society</i> , 2006 , 128, 6022-3	16.4	119
121	Brushes with sage. <i>Archives of Biochemistry and Biophysics</i> , 2006 , 448, 117-22	4.1	2
120	Geosmin biosynthesis in <i>Streptomyces avermitilis</i> . Molecular cloning, expression, and mechanistic study of the germacradienol/geosmin synthase. <i>Journal of Antibiotics</i> , 2006 , 59, 471-9	3.7	96
119	Modular polyketide synthases: Investigating intermodular communication using 6 deoxyerythronolide B synthase module 2. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2006 , 16, 213-6	2.9	4
118	Identification of NanE as the thioesterase for polyether chain release in nanchangmycin biosynthesis. <i>Chemistry and Biology</i> , 2006 , 13, 945-55		51
117	Molecular recognition of the substrate diphosphate group governs product diversity in trichodiene synthase mutants. <i>Biochemistry</i> , 2005 , 44, 6153-63	3.2	53
116	Role of arginine-304 in the diphosphate-triggered active site closure mechanism of trichodiene synthase. <i>Biochemistry</i> , 2005 , 44, 12719-27	3.2	46
115	Polyketide double bond biosynthesis. Mechanistic analysis of the dehydratase-containing module 2 of the picromycin/methymycin polyketide synthase. <i>Journal of the American Chemical Society</i> , 2005 , 127, 17393-404	16.4	70
114	Chain elongation, macrolactonization, and hydrolysis of natural and reduced hexaketide substrates by the picromycin/methymycin polyketide synthase. <i>Angewandte Chemie - International Edition</i> , 2005 , 44, 7557-60	16.4	11
113	Chain Elongation, Macrolactonization, and Hydrolysis of Natural and Reduced Hexaketide Substrates by the Picromycin/Methymycin Polyketide Synthase. <i>Angewandte Chemie</i> , 2005 , 117, 7729-7732	3.6	5
112	Reconstituting modular activity from separated domains of 6-deoxyerythronolide B synthase. <i>Biochemistry</i> , 2004 , 43, 13892-8	3.2	59
111	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. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2004 , 14, 1633-6	2.9	17
110	Back to basics; assigning biochemical function in the post-genomic era. <i>Chemistry and Biology</i> , 2004 , 11, 741-3		1
109	Aristolochene synthase: mechanistic analysis of active site residues by site-directed mutagenesis. <i>Journal of the American Chemical Society</i> , 2004 , 126, 7212-21	16.4	83
108	Biochemical analysis of the substrate specificity of the beta-ketoacyl-acyl carrier protein synthase domain of module 2 of the erythromycin polyketide synthase. <i>Biochemistry</i> , 2004 , 43, 16301-10	3.2	37

107	Kinetic analysis of Escherichia coli 2-C-methyl-D-erythritol-4-phosphate cytidyltransferase, wild type and mutants, reveals roles of active site amino acids. <i>Biochemistry</i> , 2004 , 43, 12189-97	3.2	48
106	Mechanism and stereochemistry of the germacradienol/germacrene D synthase of Streptomyces coelicolor A3(2). <i>Journal of the American Chemical Society</i> , 2004 , 126, 2678-9	16.4	51
105	Expression and mechanistic analysis of a germacradienol synthase from Streptomyces coelicolor implicated in geosmin biosynthesis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003 , 100, 1547-51	11.5	117
104	Precursor-Directed polyketide biosynthesis in Escherichia coli. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2003 , 13, 3701-4	2.9	21
103	Functional expression and characterization of EryA, the erythritol kinase of Brucella abortus, and enzymatic synthesis of L-erythritol-4-phosphate. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2003 , 13, 737-9	2.9	29
102	Mechanistic analysis of acyl transferase domain exchange in polyketide synthase modules. <i>Journal of the American Chemical Society</i> , 2003 , 125, 5366-74	16.4	63
101	Expression and kinetic analysis of the substrate specificity of modules 5 and 6 of the picromycin/methymycin polyketide synthase. <i>Journal of the American Chemical Society</i> , 2003 , 125, 5671-6	16.4	23
100	Intermodular communication in modular polyketide synthases: structural and mutational analysis of linker mediated protein-protein recognition. <i>Journal of the American Chemical Society</i> , 2003 , 125, 4097-102	16.4	34
99	Quantitative analysis of loading and extender acyltransferases of modular polyketide synthases. <i>Biochemistry</i> , 2003 , 42, 200-7	3.2	40
98	Crystal structure of Escherichia coli PdxA, an enzyme involved in the pyridoxal phosphate biosynthesis pathway. <i>Journal of Biological Chemistry</i> , 2003 , 278, 43682-90	5.4	31
97	Understanding substrate specificity of polyketide synthase modules by generating hybrid multimodular synthases. <i>Journal of Biological Chemistry</i> , 2003 , 278, 42020-6	5.4	60
96	Precursor-directed biosynthesis: biochemical basis of the remarkable selectivity of the erythromycin polyketide synthase toward unsaturated triketides. <i>Chemistry and Biology</i> , 2002 , 9, 131-42		47
95	X-ray crystal structures of D100E trichodiene synthase and its pyrophosphate complex reveal the basis for terpene product diversity. <i>Biochemistry</i> , 2002 , 41, 1732-41	3.2	76
94	Expression, site-directed mutagenesis, and steady state kinetic analysis of the terminal thioesterase domain of the methymycin/picromycin polyketide synthase. <i>Biochemistry</i> , 2002 , 41, 12590-7	3.2	59
93	Insights into channel architecture and substrate specificity from crystal structures of two macrocycle-forming thioesterases of modular polyketide synthases. <i>Biochemistry</i> , 2002 , 41, 12598-606	3.2	108
92	Pentalenene synthase. Analysis of active site residues by site-directed mutagenesis. <i>Journal of the American Chemical Society</i> , 2002 , 124, 7681-9	16.4	135
91	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. <i>Biochemistry</i> , 2002 , 41, 5056-66	3.2	107
90	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. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2001 , 11, 1477-9	2.9	33

89	Molecular cloning, expression and characterization of the first three genes in the mevalonate-independent isoprenoid pathway in <i>Streptomyces coelicolor</i> . <i>Bioorganic and Medicinal Chemistry</i> , 2001 , 9, 1467-77	3.4	38
88	Structure of 4-diphosphocytidyl-2-C- methylerythritol synthetase involved in mevalonate-independent isoprenoid biosynthesis. <i>Nature Structural Biology</i> , 2001 , 8, 641-8		88
87	Enhancing the atom economy of polyketide biosynthetic processes through metabolic engineering. <i>Biotechnology Progress</i> , 2001 , 17, 612-7	2.8	37
86	Selective protein-protein interactions direct channeling of intermediates between polyketide synthase modules. <i>Biochemistry</i> , 2001 , 40, 2326-31	3.2	109
85	Biosynthesis of complex polyketides in a metabolically engineered strain of <i>E. coli</i> . <i>Science</i> , 2001 , 291, 1790-2	33.3	586
84	Precursor-directed biosynthesis of 16-membered macrolides by the erythromycin polyketide synthase. <i>Journal of the American Chemical Society</i> , 2001 , 123, 2495-502	16.4	41
83	Assessing the balance between protein-protein interactions and enzyme-substrate interactions in the channeling of intermediates between polyketide synthase modules. <i>Journal of the American Chemical Society</i> , 2001 , 123, 6465-74	16.4	112
82	Epicubenol synthase. Origin of the oxygen atom of a bacterial sesquiterpene alcohol. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2000 , 10, 105-7	2.9	7
81	Aristolochene synthase: purification, molecular cloning, high-level expression in <i>Escherichia coli</i> , and characterization of the <i>Aspergillus terreus</i> cyclase. <i>Archives of Biochemistry and Biophysics</i> , 2000 , 376, 354-64	4.1	54
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79	Biosynthesis of Vitamin B6: Origin of the Oxygen Atoms of Pyridoxol Phosphate. <i>Journal of the American Chemical Society</i> , 2000 , 122, 4213-4214	16.4	27
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