Kevin A Reynolds

List of Publications by Year
in descending order

108 papers	3,998 citations	94433 37 h-index	144013 57 g-index
110 all docs	110 docs citations	110 times ranked	3192 citing authors

#	Article	IF	Citations
1	Total Synthesis and Antimalarial Activity of 2-(p-Hydroxybenzyl)-prodigiosins, Isoheptylprodigiosin, and Geometric Isomers of Tambjamine MYP1 Isolated from Marine Bacteria. Journal of Medicinal Chemistry, 2021, 64, 8739-8754.	6.4	14
2	Lead Optimization of Second-Generation Acridones as Broad-Spectrum Antimalarials. Journal of Medicinal Chemistry, 2020, 63, 6179-6202.	6.4	7
3	MarH, a Bifunctional Enzyme Involved in the Condensation and Hydroxylation Steps of the Marineosin Biosynthetic Pathway. Organic Letters, 2017, 19, 1298-1301.	4.6	7
4	Stenotrophomonas maltophilia OleCâ€Catalyzed ATPâ€Dependent Formation of Longâ€Chain Zâ€Olefins from 2â€Alkylâ€3â€hydroxyalkanoic Acids. ChemBioChem, 2016, 17, 1426-1429.	2.6	13
5	Identification and Characterization of FabA from the Type II Fatty Acid Synthase ofStreptomyces coelicolor. Journal of Natural Products, 2016, 79, 240-243.	3.0	4
6	Distinct tRNA Accommodation Intermediates Observed on the Ribosome with the Antibiotics Hygromycin A and A201A. Molecular Cell, 2015, 58, 832-844.	9.7	79
7	Characterization of FabG and FabI of the Streptomyces coelicolor Dissociated Fatty Acid Synthase. ChemBioChem, 2015, 16, 631-640.	2.6	12
8	Synthesis and Structureâ€“Activity Relationships of Tambjamines and B-Ring Functionalized Prodiginines as Potent Antimalarials. Journal of Medicinal Chemistry, 2015, 58, 7286-7309.	6.4	37
9	Stereospecific Synthesis of 23-Hydroxyundecylprodiginines and Analogues and Conversion to Antimalarial Premarineosins via a Rieske Oxygenase Catalyzed Bicyclization. Journal of Organic Chemistry, 2014, 79, 11674-11689.	3.2	35
10	Elucidation of Final Steps of the Marineosins Biosynthetic Pathway through Identification and Characterization of the Corresponding Gene Cluster. Journal of the American Chemical Society, 2014, 136, 4565-4574.	13.7	49
11	Synthesis of 2,2â€²-bipyrrole-5-carboxaldehydes and their application in the synthesis of B-ring functionalized prodiginines and tambjamines. Tetrahedron, 2013, 69, 8375-8385.	1.9	16
12	Structural and Stereochemical Analysis of a Modular Polyketide Synthase Ketoreductase Domain Required for the Generation of a cis-Alkene. Chemistry and Biology, 2013, 20, 772-783.	6.0	52
13	Functional Modular Dissection of DEBS1-TE Changes Triketide Lactone Ratios and Provides Insight into Acyl Group Loading, Hydrolysis, and ACP Transfer. Biochemistry, 2012, 51, 9333-9341.	2.5	7
14	Streptomyces coelicolor RedP and FabH enzymes, initiating undecylprodiginine and fatty acid biosynthesis, exhibit distinct acyl-CoA and malonyl-acyl carrier protein substrate specificities. FEMS Microbiology Letters, 2012, 328, 32-38.	1.8	9
15	Functional Characterization of an NADPH Dependent 2-Alkyl-3-ketoalkanoic Acid Reductase Involved in Olefin Biosynthesis inStenotrophomonas maltophilia. Biochemistry, 2011, 50, 9633-9640.	2.5	30
16	Antimalarial Activity of Natural and Synthetic Prodiginines. Journal of Medicinal Chemistry, 2011, 54, 5296-5306.	6.4	135
17	Acyl-CoA Subunit Selectivity in the Pikromycin Polyketide Synthase PikAIV: Steady-State Kinetics and Active-Site Occupancy Analysis by FTICR-MS. Chemistry and Biology, 2011, 18, 1075-1081.	6.0	26
18	Structure and Function of the RedJ Protein, a Thioesterase from the Prodiginine Biosynthetic Pathway in Streptomyces coelicolor. Journal of Biological Chemistry, 2011, 286, 22558-22569.	3.4	41

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19	The Final Step of Hygromycin A Biosynthesis, Oxidation of C-5â€³-Dihydrohygromycin A, Is Linked to a Putative Proton Gradient-Dependent Efflux. Antimicrobial Agents and Chemotherapy, 2009, 53, 5163-5172.	3.2	6
20	Biosynthesis of the salinosporamide A polyketide synthase substrate chloroethylmalonyl-coenzyme A from S -adenosyl- <scp>l</scp> -methionine. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 12295-12300.	7.1	169
21	Application of a Newly Identified and Characterized 18- O -Acyltransferase in Chemoenzymatic Synthesis of Selected Natural and Nonnatural Bioactive Derivatives of Phoslactomycins. Applied and Environmental Microbiology, 2009, 75, 3469-3476.	3.1	15
22	Functional Dissection of a Multimodular Polypeptide of the Pikromycin Polyketide Synthase into Monomodules by Using a Matched Pair of Heterologous Docking Domains. ChemBioChem, 2009, 10, 1537-1543.	2.6	12
23	High titer production of tetracenomycins by heterologous expression of the pathway in a Streptomyces cinnamonensis industrial monensin producer strain. Metabolic Engineering, 2009, 11, 319-327.	7.0	34
24	Biosynthesis of the Aminocyclitol Subunit of Hygromycin A in Streptomyces hygroscopicus NRRL 2388. Chemistry and Biology, 2009, 16, 1180-1189.	6.0	21
25	Structural Basis for Binding Specificity between Subclasses of Modular Polyketide Synthase Docking Domains. ACS Chemical Biology, 2009, 4, 41-52.	3.4	97
26	Biosynthesis of Salinosporamides from Î±,Î²-Unsaturated Fatty Acids: Implications for Extending Polyketide Synthase Diversity. Journal of the American Chemical Society, 2009, 131, 10376-10377.	13.7	67
27	Generation of Novel Pikromycin Antibiotic Products Through Mutasynthesis. ChemBioChem, 2008, 9, 1609-1616.	2.6	14
28	Probing reactivity and substrate specificity of both subunits of the dimeric Mycobacterium tuberculosis FabH using alkyl-CoA disulfide inhibitors and acyl-CoA substrates. Bioorganic Chemistry, 2008, 36, 85-90.	4.1	8
29	Unsymmetric arylâ€“alkyl disulfide growth inhibitors of methicillin-resistant Staphylococcus aureus and Bacillus anthracis. Bioorganic and Medicinal Chemistry, 2008, 16, 6501-6508.	3.0	43
30	Elucidation of the Streptomyces coelicolor Pathway toÂ2-Undecylpyrrole, a Key Intermediate in Undecylprodiginine and Streptorubin B Biosynthesis. Chemistry and Biology, 2008, 15, 137-148.	6.0	84
31	Separate Entrance and Exit Portals for Ligand Traffic in Mycobacterium tuberculosis FabH. Chemistry and Biology, 2008, 15, 402-412.	6.0	35
32	Synthesis and biological evaluation of novel sulfonyl-naphthalene-1,4-diols as FabH inhibitors. Bioorganic and Medicinal Chemistry Letters, 2008, 18, 6402-6405.	2.2	42
33	cis-Î”^{2,3}-Double Bond of Phoslactomycins Is Generated by a Post-PKS Tailoring Enzyme. Journal of the American Chemical Society, 2008, 130, 12236-12237.	13.7	39
34	AnO-Phosphotransferase Catalyzes Phosphorylation of Hygromycin A in the Antibiotic-Producing OrganismStreptomyces hygroscopicus. Antimicrobial Agents and Chemotherapy, 2008, 52, 3580-3588.	3.2	15
35	Mycobacterium tuberculosis Î²-Ketoacyl Acyl Carrier Protein Synthase III (mtFabH) Assay: Principles and Method. Methods in Molecular Medicine, 2008, 142, 205-213.	0.8	4
36	Antibacterial targets in fatty acid biosynthesis. Current Opinion in Microbiology, 2007, 10, 447-453.	5.1	166

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37	Modular Polyketide Synthases andcisDouble Bond Formation:Â Establishment of Activatedcis-3-Cyclohexylpropenoic Acid as the Diketide Intermediate in Phoslactomycin Biosynthesis. Journal of the American Chemical Society, 2007, 129, 1910-1911.	13.7	41
38	Hygromycin A Biosynthesis. ACS Symposium Series, 2007, , 16-32.	0.5	0
39	Synthesis and biological evaluation of thiazolidine-2-one 1,1-dioxide as inhibitors of Escherichia coli Î²-ketoacyl-ACP-synthase III (FabH). Bioorganic and Medicinal Chemistry Letters, 2007, 17, 879-883.	2.2	37
40	Alkyl-CoA Disulfides as Inhibitors and Mechanistic Probes for FabH Enzymes. Chemistry and Biology, 2007, 14, 513-524.	6.0	53
41	Production of Hygromycin A Analogs in Streptomyces hygroscopicus NRRL 2388 through Identification and Manipulation of the Biosynthetic Gene Cluster. Chemistry and Biology, 2006, 13, 753-764.	6.0	41
42	Multiple pathways for acetate assimilation in Streptomyces cinnamonensis. Journal of Industrial Microbiology and Biotechnology, 2006, 33, 141-150.	3.0	19
43	Identification and disruptional analysis of the Streptomyces cinnamonensis msdA gene, encoding methylmalonic acid semialdehyde dehydrogenase. Journal of Industrial Microbiology and Biotechnology, 2006, 33, 75-83.	3.0	4
44	Genetic manipulation of the biosynthetic process leading to phoslactomycins, potent protein phosphatase 2A inhibitors. Journal of Industrial Microbiology and Biotechnology, 2006, 33, 589-599.	3.0	16
45	Production of Branched-Chain Alkylprodiginines in S. coelicolor by Replacement of the 3-Ketoacyl ACP Synthase III Initiation Enzyme, RedP. Chemistry and Biology, 2005, 12, 191-200.	6.0	33
46	A pH-Stability Study of Phoslactomycin B and Analysis of the Acid and Base Degradation Products. Journal of Antibiotics, 2005, 58, 573-582.	2.0	14
47	The plmS 2 -Encoded Cytochrome P450 Monooxygenase Mediates Hydroxylation of Phoslactomycin B in Streptomyces sp. Strain HK803. Journal of Bacteriology, 2005, 187, 7970-7976.	2.2	13
48	Alteration of the Fatty Acid Profile of Streptomyces coelicolor by Replacement of the Initiation Enzyme 3-Ketoacyl Acyl Carrier Protein Synthase III (FabH). Journal of Bacteriology, 2005, 187, 3795-3799.	2.2	56
49	Crotonyl-coenzyme A reductase provides methylmalonyl-CoA precursors for monensin biosynthesis by Streptomyces cinnamonensis in an oil-based extended fermentation. Microbiology (United Kingdom), 2004, 150, 3463-3472.	1.8	30
50	An efficient method for creation and functional analysis of libraries of hybrid type I polyketide synthases. Protein Engineering, Design and Selection, 2004, 17, 277-284.	2.1	25
51	1,2-Dithiole-3-Ones as Potent Inhibitors of the Bacterial 3-Ketoacyl Acyl Carrier Protein Synthase III (FabH). Antimicrobial Agents and Chemotherapy, 2004, 48, 3093-3102.	3.2	88
52	Biosynthesis of phoslactomycins: cyclohexanecarboxylic acid as the starter unit. Tetrahedron, 2003, 59, 7465-7471.	1.9	25
53	Iterative Chain Elongation by a Pikromycin Monomodular Polyketide Synthase. Journal of the American Chemical Society, 2003, 125, 4682-4683.	13.7	42
54	The Initiating Steps of a Type II Fatty Acid Synthase inPlasmodium falciparumare Catalyzed by pfacp, pfmcat, and pfKASIIIâ€. Biochemistry, 2003, 42, 1160-1169.	2.5	84

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55	Biosynthetic Origins of the Natural Product, Thiolactomycin:Â A Unique and Selective Inhibitor of Type II Dissociated Fatty Acid Synthases. Journal of the American Chemical Society, 2003, 125, 10166-10167.	13.7	21
56	Substrate Recognition and Channeling of Monomodules from the Pikromycin Polyketide Synthase. Journal of the American Chemical Society, 2003, 125, 12551-12557.	13.7	28
57	Biosynthetic Origin of Hygromycin A. Antimicrobial Agents and Chemotherapy, 2003, 47, 2065-2071.	3.2	21
58	Enhancement and Selective Production of Phoslactomycin B, a Protein Phosphatase IIa Inhibitor, through Identification and Engineering of the Corresponding Biosynthetic Gene Cluster. Journal of Biological Chemistry, 2003, 278, 35552-35557.	3.4	63
59	Recent Developments in the Production of Novel Polyketides by Combinatorial Biosynthesis. Biotechnology and Genetic Engineering Reviews, 2002, 19, 159-174.	6.2	11
60	Biochemical Evidence for an Editing Role of Thioesterase II in the Biosynthesis of the Polyketide Pikromycin. Journal of Biological Chemistry, 2002, 277, 48028-48034.	3.4	95
61	Purification, Characterization, and Identification of Novel Inhibitors of the Î²-Ketoacyl-Acyl Carrier Protein Synthase III (FabH) from Staphylococcus aureus. Antimicrobial Agents and Chemotherapy, 2002, 46, 1310-1318.	3.2	60
62	Enzymes Involved in Fatty Acid and Polyketide Biosynthesis in Streptomyces glaucescens:â€‰ Role of FabH and FabD and Their Acyl Carrier Protein Specificity. Biochemistry, 2002, 41, 10462-10471.	2.5	68
63	An Unexpected Interaction between the Modular Polyketide Synthases, Erythromycin DEBS1 and Pikromycin PikAIV, Leads to Efficient Triketide Lactone Synthesisâ€. Biochemistry, 2002, 41, 10827-10833.	2.5	28
64	Generation of Multiple Bioactive Macrolides by Hybrid Modular Polyketide Synthases in Streptomyces venezuelae. Chemistry and Biology, 2002, 9, 203-214.	6.0	98
65	The Hidden Steps of Domain Skipping. Chemistry and Biology, 2002, 9, 575-583.	6.0	52
66	AStreptomyces collinusThiolase with Novel Acetyl-CoA:Acyl Carrier Protein Transacylase Activityâ€,â€¡. Biochemistry, 2001, 40, 11955-11964.	2.5	13
67	The Streptomyces venezuelae pikAV gene contains a transcription unit essential for expression of enzymes involved in glycosylation of narbonolide and 10-deoxymethynolide. Gene, 2001, 263, 255-264.	2.2	23
68	Precursor Supply for Polyketide Biosynthesis: The Role of Crotonyl-CoA Reductase. Metabolic Engineering, 2001, 3, 40-48.	7.0	31
69	MeaA, a Putative Coenzyme B 12 -Dependent Mutase, Provides Methylmalonyl Coenzyme A for Monensin Biosynthesis in Streptomyces cinnamonensis. Journal of Bacteriology, 2001, 183, 2071-2080.	2.2	39
70	Crystal Structure of the Mycobacterium tuberculosisÎ²-Ketoacyl-Acyl Carrier Protein Synthase III. Journal of Biological Chemistry, 2001, 276, 20516-20522.	3.4	103
71	Engineered Fatty Acid Biosynthesis in Streptomyces by Altered Catalytic Function of Î²-Ketoacyl-Acyl Carrier Protein Synthase III. Journal of Bacteriology, 2001, 183, 2335-2342.	2.2	29
72	Characterization and Analysis of the PikD Regulatory Factor in the Pikromycin Biosynthetic Pathway of Streptomyces venezuelae. Journal of Bacteriology, 2001, 183, 3468-3475.	2.2	111

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73	Development of a Scintillation Proximity Assay for Î²-Ketoacyl-acyl Carrier Protein Synthase III. Analytical Biochemistry, 2000, 282, 107-114.	2.4	22
74	Mechanisms of molecular recognition in the pikromycin polyketide synthase. Chemistry and Biology, 2000, 7, 907-918.	6.0	17
75	Fatty-acid biosynthesis in a branched-chain Î±-keto acid dehydrogenase mutant ofStreptomyces avermitilis. Canadian Journal of Microbiology, 2000, 46, 506-514.	1.7	22
76	A Novel Î”3,Î”2-Enoyl-CoA Isomerase Involved in the Biosynthesis of the Cyclohexanecarboxylic Acid-Derived Moiety of the Polyketide Ansatrienin Aâ€,â€¡. Biochemistry, 2000, 39, 7595-7604.	2.5	21
77	Fatty-acid biosynthesis in a branched-chain Î±-keto acid dehydrogenase mutant of Streptomyces avermitilis. Canadian Journal of Microbiology, 2000, 46, 506-514.	1.7	10
78	Polyketide synthase acyl carrier protein (ACP) as a substrate and a catalyst for malonyl ACP biosynthesis. Chemistry and Biology, 1999, 6, 577-584.	6.0	30
79	Biosynthesis of ansatrienin (mycotrienin) and naphthomycin. Identification and analysis of two separate biosynthetic gene clusters in Streptomyces collinus Tu 1892. FEBS Journal, 1999, 261, 98-107.	0.2	76
80	Genes encoding acyl-CoA dehydrogenase (AcdH) homologues from Streptomyces coelicolor and Streptomyces avermitilis provide insights into the metabolism of small branched-chain fatty acids and macrolide antibiotic production The GenBank accession numbers for the sequences described in this paper are AF142581 (Streptomyces coelicolor) and AF143210 (Streptomyces avermitilis).. Microbiology (United Kingdom), 1999, 145, 2323-2334.	1.8	50
81	Role of Crotonyl Coenzyme A Reductase in Determining the Ratio of Polyketides Monensin A and Monensin B Produced by Streptomyces cinnamonensis. Journal of Bacteriology, 1999, 181, 6806-6813.	2.2	46
82	Stereochemical Analyses of theStreptomyceshygroscopicusvar.ascomyceticusType-II Dehydroquinate Dehydratase and Evidence for a Role of the Enzyme in the Biosynthesis of the Shikimate-Derived Moiety of Ascomycin. Journal of Organic Chemistry, 1998, 63, 8098-8099.	3.2	5
83	Cloning, Expression, and Characterization of a Type II 3-Dehydroquinate Dehydratase Gene fromStreptomyces hygroscopicus. Archives of Biochemistry and Biophysics, 1998, 350, 298-306.	3.0	11
84	Ethyl-substituted erythromycin derivatives produced by directed metabolic engineering. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 7305-7309.	7.1	120
85	Characterization of Î²-Ketoacyl-Acyl Carrier Protein Synthase III from Streptomyces glaucescens and Its Role in Initiation of Fatty Acid Biosynthesis. Journal of Bacteriology, 1998, 180, 4481-4486.	2.2	96
86	Biosynthesis of the Shikimate-derived Starter Unit of the Immunosuppressant Ascomycin: Stereochemistry of the 1,4-Conjugate Elimination.. Journal of Antibiotics, 1997, 50, 701-703.	2.0	21
87	The mechanistic and evolutionary basis of stereospecificity for hydrogen transfers in enzyme-catalysed processes. Chemical Society Reviews, 1997, 26, 337.	38.1	12
88	Linking Diversity in Evolutionary Origin and Stereospecificity for Enoyl Thioester Reductases:Â Determination and Interpretation of the Novel Stereochemical Course of Reaction Catalyzed by Crotonyl CoA Reductase fromStreptomyces collinus. Journal of the American Chemical Society, 1997, 119, 2973-2979.	13.7	15
89	Rapamycin, FK506 and Ascomycin-Related Compounds. Drugs and the Pharmaceutical Sciences, 1997, , 497-520.	0.1	15
90	The Biosynthesis of Monensin-A: Thymine, .BETA.-Aminoisobutyrate and Methacrylate Metabolism in Streptomyces cinnamonensis.. Journal of Antibiotics, 1995, 48, 1280-1287.	2.0	11

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91	Purification of Crotonyl-CoA Reductase from Streptomyces collinus and Cloning, Sequencing and Expression of the Corresponding Gene in Escherichia coli. FEBS Journal, 1995, 233, 954-962.	0.2	60
92	In vivo analysis of straight-chain and branched-chain fatty acid biosynthesis in three actinomycetes. FEMS Microbiology Letters, 1995, 131, 227-234.	1.8	71
93	Kinetic and stereoelectronic effects of a fluorine substituent on the reaction catalysed by an NADPH-dependent cyclohex-1-enylcarbonyl CoA reductase. Journal of the Chemical Society Chemical Communications, 1995, , 2329.	2.0	7
94	In vivo analysis of straight-chain and branched-chain fatty acid biosynthesis in three actinomycetes. FEMS Microbiology Letters, 1995, 131, 227-234.	1.8	2
95	The incorporation of thymine and Î²-aminoisobutyrate into the polyether antibiotic, monensin-A. Journal of the Chemical Society Chemical Communications, 1994, , 1577-1578.	2.0	2
96	Biosynthetic studies of ascomycin (FK520): formation of the (1R,3R,4R)-3,4-dihydroxycyclohexanecarboxylic acid-derived moiety. Journal of the American Chemical Society, 1994, 116, 11600-11601.	13.7	36
97	Biosynthetic studies on ansatrienin A. Formation of the cyclohexanecarboxylic acid moiety. Journal of the American Chemical Society, 1993, 115, 5254-5266.	13.7	78
98	Comparison of Two Unusual Enoyl-CoA Reductases in Streptomyces collinus. Journal of Natural Products, 1993, 56, 175-185.	3.0	8
99	Mechanistic Studies of a Î”1, Î”2 Cyclohexenylcarbonyl CoA Isomerase Catalyzing the Penultimate Step in the Biosynthesis of the Cyclohexanecarboxylic Acid Moiety of Ansatrienin A. Journal of Natural Products, 1993, 56, 825-829.	3.0	11
100	Biosynthesis of ansatrienin by Streptomyces collinus: Cell-free transformations of cyclohexene- and cyclohexadienecarboxylic acids.. Journal of Antibiotics, 1992, 45, 411-419.	2.0	14
101	Isotopically sensitive regioselectivity in the oxidative deamination of a homologous series of diamines catalyzed by diamine oxidase. Chemico-Biological Interactions, 1992, 85, 15-26.	4.0	2
102	Biosynthesis of ansatirenin: stereochemical course of the final reduction step leading to the cyclohexanecarboxylic acid moiety. Journal of the American Chemical Society, 1991, 113, 4339-4340.	13.7	24
103	Mechanistic studies of two amino acid racemases of broad substrate specificity fromPseudomonas striata andAeromonas caviae. Journal of Basic Microbiology, 1991, 31, 177-188.	3.3	7
104	The Enzymic Interconversion of Isobutyryl andn-Butyrylcarba(dethia)-Coenzyme A: A Coenzyme-B12-dependent Carbon Skeleton Rearrangement. Angewandte Chemie International Edition in English, 1988, 27, 1089-1090.	4.4	30
105	Butyrate metabolism in streptomycetes. Characterization of an intramolecular vicinal interchange rearrangement linking isobutyrate and butyrate in Streptomyces cinnamonensis. Journal of the Chemical Society Perkin Transactions 1, 1988, , 3195.	0.9	44
106	Biosynthesis of monensin. Evidence for a vicinal interchange rearrangement linking n-butyryl-CoA and isobutyryl-CoA. Journal of the Chemical Society Chemical Communications, 1986, , 1334.	2.0	6
107	Biosynthesis of monensin. The intramolecular rearrangement of isobutyryl-CoA to n-butyryl-CoA. Journal of the Chemical Society Chemical Communications, 1985, , 1831.	2.0	12
108	Biosynthesis of the polyether antibiotic monensin-a: stereochemical aspects of the incorporation and metabolism of isobutyrate. Journal of the Chemical Society Chemical Communications, 1985, , 1002.	2.0	17