## Kevin A Reynolds

List of Publications by Year in descending order

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

#	Article	IF	Citations
1	Biosynthesis of the salinosporamide A polyketide synthase substrate chloroethylmalonyl-coenzyme A from <i>S</i> -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
2	Antibacterial targets in fatty acid biosynthesis. Current Opinion in Microbiology, 2007, 10, 447-453.	5.1	166
3	Antimalarial Activity of Natural and Synthetic Prodiginines. Journal of Medicinal Chemistry, 2011, 54, 5296-5306.	6.4	135
4	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
5	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
6	Crystal Structure of the Mycobacterium tuberculosis $\hat{l}^2$ -Ketoacyl-Acyl Carrier Protein Synthase III. Journal of Biological Chemistry, 2001, 276, 20516-20522.	3.4	103
7	Generation of Multiple Bioactive Macrolides by Hybrid Modular Polyketide Synthases in Streptomyces venezuelae. Chemistry and Biology, 2002, 9, 203-214.	6.0	98
8	Structural Basis for Binding Specificity between Subclasses of Modular Polyketide Synthase Docking Domains. ACS Chemical Biology, 2009, 4, 41-52.	3.4	97
9	Characterization of β-Ketoacyl-Acyl Carrier Protein Synthase III from <i>Streptomyces glaucescens</i> and Its Role in Initiation of Fatty Acid Biosynthesis. Journal of Bacteriology, 1998, 180, 4481-4486.	2.2	96
10	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
11	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
12	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
13	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
14	Distinct tRNA Accommodation Intermediates Observed on the Ribosome with the Antibiotics Hygromycin A and A201A. Molecular Cell, 2015, 58, 832-844.	9.7	79
15	Biosynthetic studies on ansatrienin A. Formation of the cyclohexanecarboxylic acid moiety. Journal of the American Chemical Society, 1993, 115, 5254-5266.	13.7	78
16	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
17	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
18	Enzymes Involved in Fatty Acid and Polyketide Biosynthesis in Streptomyces glaucescens:  Role of FabH and FabD and Their Acyl Carrier Protein Specificity. Biochemistry, 2002, 41, 10462-10471.	2.5	68

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19	Biosynthesis of Salinosporamides from $\hat{l}\pm,\hat{l}^2$ -Unsaturated Fatty Acids: Implications for Extending Polyketide Synthase Diversity. Journal of the American Chemical Society, 2009, 131, 10376-10377.	13.7	67
20	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
21	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
22	Purification, Characterization, and Identification of Novel Inhibitors of the β-Ketoacyl-Acyl Carrier Protein Synthase III (FabH) from Staphylococcus aureus. Antimicrobial Agents and Chemotherapy, 2002, 46, 1310-1318.	3.2	60
23	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
24	Alkyl-CoA Disulfides as Inhibitors and Mechanistic Probes for FabH Enzymes. Chemistry and Biology, 2007, 14, 513-524.	6.0	53
25	The Hidden Steps of Domain Skipping. Chemistry and Biology, 2002, 9, 575-583.	6.0	52
26	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
27	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	1.8	50
28	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
29	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
30	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
31	Unsymmetric aryl–alkyl disulfide growth inhibitors of methicillin-resistant Staphylococcus aureus and Bacillus anthracis. Bioorganic and Medicinal Chemistry, 2008, 16, 6501-6508.	3.0	43
32	Iterative Chain Elongation by a Pikromycin Monomodular Polyketide Synthase. Journal of the American Chemical Society, 2003, 125, 4682-4683.	13.7	42
33	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
34	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
35	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
36	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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37	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
38	<i>cis</i> -î" <sup>2,3</sup> -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
39	Synthesis and biological evaluation of thiazolidine-2-one 1,1-dioxide as inhibitors of Escherichia coli $\hat{l}^2$ -ketoacyl-ACP-synthase III (FabH). Bioorganic and Medicinal Chemistry Letters, 2007, 17, 879-883.	2.2	37
40	Synthesis and Structure–Activity Relationships of Tambjamines and B-Ring Functionalized Prodiginines as Potent Antimalarials. Journal of Medicinal Chemistry, 2015, 58, 7286-7309.	6.4	37
41	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
42	Separate Entrance and Exit Portals for Ligand Traffic in Mycobacterium tuberculosis FabH. Chemistry and Biology, 2008, 15, 402-412.	6.0	35
43	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
44	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
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	Precursor Supply for Polyketide Biosynthesis: The Role of Crotonyl-CoA Reductase. Metabolic Engineering, 2001, 3, 40-48.	7.0	31
47	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
48	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
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	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
51	Engineered Fatty Acid Biosynthesis in Streptomyces by Altered Catalytic Function of $\hat{l}^2$ -Ketoacyl-Acyl Carrier Protein Synthase III. Journal of Bacteriology, 2001, 183, 2335-2342.	2.2	29
52	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
53	Substrate Recognition and Channeling of Monomodules from the Pikromycin Polyketide Synthase. Journal of the American Chemical Society, 2003, 125, 12551-12557.	13.7	28
54	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

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55	Biosynthesis of phoslactomycins: cyclohexanecarboxylic acid as the starter unit. Tetrahedron, 2003, 59, 7465-7471.	1.9	25
56	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
57	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
58	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
59	Development of a Scintillation Proximity Assay for Î <sup>2</sup> -Ketoacyl-acyl Carrier Protein Synthase III. Analytical Biochemistry, 2000, 282, 107-114.	2.4	22
60	Fatty-acid biosynthesis in a branched-chain $\hat{l}_{\pm}$ -keto acid dehydrogenase mutant of Streptomyces avermitilis. Canadian Journal of Microbiology, 2000, 46, 506-514.	1.7	22
61	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
62	A Novel Δ3,Δ2-Enoyl-CoA Isomerase Involved in the Biosynthesis of the Cyclohexanecarboxylic Acid-Derived Moiety of the Polyketide Ansatrienin Aâ€,‡. Biochemistry, 2000, 39, 7595-7604.	2.5	21
63	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
64	Biosynthetic Origin of Hygromycin A. Antimicrobial Agents and Chemotherapy, 2003, 47, 2065-2071.	3.2	21
65	Biosynthesis of the Aminocyclitol Subunit of Hygromycin A in Streptomyces hygroscopicus NRRL 2388. Chemistry and Biology, 2009, 16, 1180-1189.	6.0	21
66	Multiple pathways for acetate assimilation in Streptomyces cinnamonensis. Journal of Industrial Microbiology and Biotechnology, 2006, 33, 141-150.	3.0	19
67	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
68	Mechanisms of molecular recognition in the pikromycin polyketide synthase. Chemistry and Biology, 2000, 7, 907-918.	6.0	17
69	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
70	Synthesis of $2,2\hat{a}\in^2$ -bipyrrole-5-carboxaldehydes and their application in the synthesis of B-ring functionalized prodiginines and tambjamines. Tetrahedron, 2013, 69, 8375-8385.	1.9	16
71	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
72	An <i>O</i> -Phosphotransferase Catalyzes Phosphorylation of Hygromycin A in the Antibiotic-Producing Organism <i>Streptomyces hygroscopicus</i> -Chemotherapy, 2008, 52, 3580-3588.	3.2	15

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73	Application of a Newly Identified and Characterized 18- <i>O</i> -Acyltransferase in Chemoenzymatic Synthesis of Selected Natural and Nonnatural Bioactive Derivatives of Phoslactomycins. Applied and Environmental Microbiology, 2009, 75, 3469-3476.	3.1	15
74	Rapamycin, FK506 and Ascomycin-Related Compounds. Drugs and the Pharmaceutical Sciences, 1997, , 497-520.	0.1	15
75	Biosynthesis of ansatrienin by Streptomyces collinus: Cell-free transformations of cyclohexene- and cyclohexadienecarboxylic acids Journal of Antibiotics, 1992, 45, 411-419.	2.0	14
76	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
77	Generation of Novel Pikromycin Antibiotic Products Through Mutasynthesis. ChemBioChem, 2008, 9, 1609-1616.	2.6	14
78	Total Synthesis and Antimalarial Activity of 2-( <i>p</i> -Hydroxybenzyl)-prodigiosins, lsoheptylprodigiosin, and Geometric Isomers of Tambjamine MYP1 Isolated from Marine Bacteria. Journal of Medicinal Chemistry, 2021, 64, 8739-8754.	6.4	14
79	AStreptomyces collinusThiolase with Novel Acetyl-CoA:Acyl Carrier Protein Transacylase Activityâ€,‡. Biochemistry, 2001, 40, 11955-11964.	2.5	13
80	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
81	<i>Stenotrophomonas maltophilia</i> OleCâ€Catalyzed ATPâ€Dependent Formation of Longâ€Chain <i>Z</i> â€Olefins from 2â€Alkylâ€3â€hydroxyalkanoic Acids. ChemBioChem, 2016, 17, 1426-1429.	2.6	13
82	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
83	The mechanistic and evolutionary basis of stereospecificity for hydrogen transfers in enzyme-catalysed processes. Chemical Society Reviews, 1997, 26, 337.	38.1	12
84	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
85	Characterization of FabG and FabI of the <i>Streptomyces coelicolor</i> Dissociated Fatty Acid Synthase. ChemBioChem, 2015, 16, 631-640.	2.6	12
86	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
87	The Biosynthesis of Monensin-A: Thymine, .BETAAminoisobutyrate and Methacrylate Metabolism in Streptomyces cinnamonensis Journal of Antibiotics, 1995, 48, 1280-1287.	2.0	11
88	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
89	Recent Developments in the Production of Novel Polyketides by Combinatorial Biosynthesis. Biotechnology and Genetic Engineering Reviews, 2002, 19, 159-174.	6.2	11
90	Fatty-acid biosynthesis in a branched-chain $\hat{l}_{\pm}$ -keto acid dehydrogenase mutant of <i>Streptomyces avermitilis</i> . Canadian Journal of Microbiology, 2000, 46, 506-514.	1.7	10

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91	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
92	Comparison of Two Unusual Enoyl-CoA Reductases in Streptomyces collinus. Journal of Natural Products, 1993, 56, 175-185.	3.0	8
93	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
94	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
95	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
96	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
97	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
98	Lead Optimization of Second-Generation Acridones as Broad-Spectrum Antimalarials. Journal of Medicinal Chemistry, 2020, 63, 6179-6202.	6.4	7
99	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
100	The Final Step of Hygromycin A Biosynthesis, Oxidation of C-5″-Dihydrohygromycin A, Is Linked to a Putative Proton Gradient-Dependent Efflux. Antimicrobial Agents and Chemotherapy, 2009, 53, 5163-5172.	3.2	6
101	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
102	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
103	Identification and Characterization of FabA from the Type II Fatty Acid Synthase of Streptomyces coelicolor. Journal of Natural Products, 2016, 79, 240-243.	3.0	4
104	Mycobacterium tuberculosis $\hat{I}^2$ -Ketoacyl Acyl Carrier Protein Synthase III (mtFabH) Assay: Principles and Method. Methods in Molecular Medicine, 2008, 142, 205-213.	0.8	4
105	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
106	The incorporation of thymine and $\hat{l}^2$ -aminoisobutyrate into the polyether antibiotic, monensin-A. Journal of the Chemical Society Chemical Communications, 1994, , 1577-1578.	2.0	2
107	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
108	Hygromycin A Biosynthesis. ACS Symposium Series, 2007, , 16-32.	0.5	0