

Adrian Keatinge-Clay

List of Publications by Year in descending order

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78
papers

3,425
citations

159585

30
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149698

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79
docs citations

79
times ranked

2702
citing authors

#	ARTICLE	IF	CITATIONS
1	A Tylosin Ketoreductase Reveals How Chirality Is Determined in Polyketides. <i>Chemistry and Biology</i> , 2007, 14, 898-908.	6.0	281
2	The structures of type I polyketide synthases. <i>Natural Product Reports</i> , 2012, 29, 1050.	10.3	262
3	The Structure of a Ketoreductase Determines the Organization of the β^2 -Carbon Processing Enzymes of Modular Polyketide Synthases. <i>Structure</i> , 2006, 14, 737-748.	3.3	197
4	High-Resolution Macromolecular NMR Spectroscopy Inside Living Cells. <i>Journal of the American Chemical Society</i> , 2001, 123, 2446-2447.	13.7	187
5	Crystal Structure of the Erythromycin Polyketide Synthase Dehydratase. <i>Journal of Molecular Biology</i> , 2008, 384, 941-953.	4.2	174
6	An antibiotic factory caught in action. <i>Nature Structural and Molecular Biology</i> , 2004, 11, 888-893.	8.2	162
7	Catalysis, Specificity, and ACP Docking Site of <i>Streptomyces coelicolor</i> Malonyl-CoA:ACP Transacylase. <i>Structure</i> , 2003, 11, 147-154.	3.3	125
8	The structure of SpnF, a standalone enzyme that catalyzes [4 + 2] cycloaddition. <i>Nature Chemical Biology</i> , 2015, 11, 256-258.	8.0	101
9	Enzymatic Extender Unit Generation for In Vitro Polyketide Synthase Reactions: Structural and Functional Showcasing of <i>Streptomyces coelicolor</i> MatB. <i>Chemistry and Biology</i> , 2011, 18, 165-176.	6.0	94
10	Structural and Functional Analysis of A-Type Ketoreductases from the Amphotericin Modular Polyketide Synthase. <i>Structure</i> , 2010, 18, 913-922.	3.3	85
11	Stereocontrol within polyketide assembly lines. <i>Natural Product Reports</i> , 2016, 33, 141-149.	10.3	85
12	Crystal Structure of the Priming β^2 -Ketosynthase from the R1128 Polyketide Biosynthetic Pathway. <i>Structure</i> , 2002, 10, 1559-1568.	3.3	75
13	The Uncommon Enzymology of Cis-Acyltransferase Assembly Lines. <i>Chemical Reviews</i> , 2017, 117, 5334-5366.	47.7	71
14	Generalized bacterial genome editing using mobile group II introns and Cre-lox. <i>Molecular Systems Biology</i> , 2013, 9, 685.	7.2	70
15	Divergence of multimodular polyketide synthases revealed by a didomain structure. <i>Nature Chemical Biology</i> , 2012, 8, 615-621.	8.0	66
16	A Close Look at a Ketosynthase from a Trans-Acyltransferase Modular Polyketide Synthase. <i>Structure</i> , 2014, 22, 444-451.	3.3	65
17	Stereospecificity of the Dehydratase Domain of the Erythromycin Polyketide Synthase. <i>Journal of the American Chemical Society</i> , 2010, 132, 14697-14699.	13.7	64
18	Employing Modular Polyketide Synthase Ketoreductases as Biocatalysts in the Preparative Chemoenzymatic Syntheses of Diketide Chiral Building Blocks. <i>Chemistry and Biology</i> , 2011, 18, 1331-1340.	6.0	60

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19	Polyketide Synthase Modules Redefined. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 4658-4660.	13.8	56
20	Structure and Stereospecificity of the Dehydratase Domain from the Terminal Module of the Rifamycin Polyketide Synthase. <i>Biochemistry</i> , 2013, 52, 8916-8928.	2.5	51
21	Antimicrobial Peptide Resistance of <i>Vibrio cholerae</i> Results from an LPS Modification Pathway Related to Nonribosomal Peptide Synthetases. <i>ACS Chemical Biology</i> , 2014, 9, 2382-2392.	3.4	51
22	Structural and Functional Analysis of C2-Type Ketoreductases from Modular Polyketide Synthases. <i>Journal of Molecular Biology</i> , 2011, 410, 105-117.	4.2	49
23	The modules of <i>trans</i> - β -acyltransferase assembly lines redefined with a central acyl carrier protein. <i>Proteins: Structure, Function and Bioinformatics</i> , 2018, 86, 664-675.	2.6	49
24	Structural Studies of an A2-Type Modular Polyketide Synthase Ketoreductase Reveal Features Controlling β -Substituent Stereochemistry. <i>ACS Chemical Biology</i> , 2013, 8, 1964-1971.	3.4	45
25	A Double-Hotdog with a New Trick: Structure and Mechanism of the <i>trans</i> -Acyltransferase Polyketide Synthase Enoyl-isomerase. <i>ACS Chemical Biology</i> , 2014, 9, 2374-2381.	3.4	45
26	Structural and Functional Analysis of the Loading Acyltransferase from Avermectin Modular Polyketide Synthase. <i>ACS Chemical Biology</i> , 2015, 10, 1017-1025.	3.4	45
27	Mechanobiochemistry: harnessing biomacromolecules for force-responsive materials. <i>Polymer Chemistry</i> , 2013, 4, 3916.	3.9	44
28	Precursor-directed biosynthesis of 12-ethyl erythromycin. <i>Bioorganic and Medicinal Chemistry</i> , 1998, 6, 1171-1177.	3.0	43
29	Stereospecificity of Ketoreductase Domains 1 and 2 of the Tylactone Modular Polyketide Synthase. <i>Journal of the American Chemical Society</i> , 2008, 130, 11598-11599.	13.7	43
30	The Missing Linker: A Dimerization Motif Located within Polyketide Synthase Modules. <i>ACS Chemical Biology</i> , 2013, 8, 1263-1270.	3.4	37
31	Substrate structure-activity relationships guide rational engineering of modular polyketide synthase ketoreductases. <i>Chemical Communications</i> , 2016, 52, 792-795.	4.1	34
32	An in vitro platform for engineering and harnessing modular polyketide synthases. <i>Nature Communications</i> , 2020, 11, 80.	12.8	34
33	Crystallographic study of the phosphoethanolamine transferase EptC required for polymyxin resistance and motility in <i>Campylobacter jejuni</i> . <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2014, 70, 2730-2739.	2.5	33
34	The status of type I polyketide synthase ketoreductases. <i>MedChemComm</i> , 2013, 4, 34-40.	3.4	32
35	Structural and functional studies of a <i>trans</i> -acyltransferase polyketide assembly line enzyme that catalyzes stereoselective β - and β^2 -ketoreduction. <i>Proteins: Structure, Function and Bioinformatics</i> , 2014, 82, 2067-2077.	2.6	29
36	Mechanically Modulating the Photophysical Properties of Fluorescent Protein Biocomposites for Ratio- and Intensiometric Sensors. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 5088-5092.	13.8	28

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37	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, 10190-10193.	13.7	28
38	Epimerase and Reductase Activities of Polyketide Synthase Ketoreductase Domains Utilize the Same Conserved Tyrosine and Serine Residues. <i>Biochemistry</i> , 2016, 55, 1179-1186.	2.5	23
39	Structural and Functional Trends in Dehydrating Bimodules from trans-Acyltransferase Polyketide Synthases. <i>Structure</i> , 2017, 25, 1045-1055.e2.	3.3	23
40	Portability and Structure of the Four-Helix Bundle Docking Domains of <i>trans</i> -Acyltransferase Modular Polyketide Synthases. <i>ACS Chemical Biology</i> , 2016, 11, 2466-2474.	3.4	22
41	Preparative, in Vitro Biocatalysis of Triketide Lactone Chiral Building Blocks. <i>ChemBioChem</i> , 2012, 13, 2200-2203.	2.6	21
42	The LINKS motif zippers trans-acyltransferase polyketide synthase assembly lines into a biosynthetic megacomplex. <i>Journal of Structural Biology</i> , 2016, 193, 196-205.	2.8	21
43	Employing a polyketide synthase module and thioesterase in the semipreparative biocatalysis of diverse triketide pyrones. <i>MedChemComm</i> , 2012, 3, 956.	3.4	19
44	Structure of Salmonella FlhE, Conserved Member of a Flagellar Type III Secretion Operon. <i>Journal of Molecular Biology</i> , 2015, 427, 1254-1262.	4.2	17
45	Î±-Methylation follows condensation in the gephyronic acid modular polyketide synthase. <i>Chemical Communications</i> , 2016, 52, 8822-8825.	4.1	17
46	Structural and Functional Studies of a Pyran Synthase Domain from a <i>trans</i> -Acyltransferase Assembly Line. <i>ACS Chemical Biology</i> , 2018, 13, 975-983.	3.4	17
47	Molecular Dynamics Studies of Modular Polyketide Synthase Ketoreductase Stereospecificity. <i>Biochemistry</i> , 2015, 54, 2346-2359.	2.5	15
48	An alternative pathway for repair of deaminated bases in DNA triggered by archaeal NucS endonuclease. <i>DNA Repair</i> , 2020, 85, 102734.	2.8	15
49	Substrate-bound structures of a ketoreductase from amphotericin modular polyketide synthase. <i>Journal of Structural Biology</i> , 2018, 203, 135-141.	2.8	13
50	Coenzyme A-free activity, crystal structure, and rational engineering of a promiscuous Î²-ketoacyl thiolase from <i>Ralstonia eutropha</i> . <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2015, 121, 113-121.	1.8	12
51	Methyltransferases excised from trans-AT polyketide synthases operate on N-acetylcysteamine-bound substrates. <i>Journal of Antibiotics</i> , 2016, 69, 567-570.	2.0	12
52	Structural Insights into the Substrate Specificity of Acyltransferases from Salinomycin Polyketide Synthase. <i>Biochemistry</i> , 2019, 58, 2978-2986.	2.5	12
53	Preparative production of an enantiomeric pair by engineered polyketide synthases. <i>Chemical Communications</i> , 2021, 57, 8762-8765.	4.1	11
54	Structural and Mechanistic Insights into Chain Release of the Polyene PKS Thioesterase Domain. <i>ACS Catalysis</i> , 2022, 12, 762-776.	11.2	11

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55	Priming enzymes from the pikromycin synthase reveal how assembly-line ketosynthases catalyze carbon-carbon chemistry. <i>Structure</i> , 2022, 30, 1331-1339.e3.	3.3	11
56	Rapid modification of the pET-28 expression vector for ligation independent cloning using homologous recombination in <i>Saccharomyces cerevisiae</i> . <i>Plasmid</i> , 2014, 76, 66-71.	1.4	10
57	Stereospecificity of Enoylreductase Domains from Modular Polyketide Synthases. <i>ACS Chemical Biology</i> , 2018, 13, 871-875.	3.4	10
58	How <i>cis</i> -Acyltransferase Assembly-Line Ketosynthases Gatekeep for Processed Polyketide Intermediates. <i>ACS Chemical Biology</i> , 2021, 16, 2515-2526.	3.4	10
59	Structural and Biochemical Insight into the Recruitment of Acyl Carrier Protein-Linked Extender Units in Ansamitocin Biosynthesis. <i>ChemBioChem</i> , 2020, 21, 1309-1314.	2.6	9
60	The Structural Relationship between Iterative and Modular PKSs. <i>Cell Chemical Biology</i> , 2016, 23, 540-542.	5.2	8
61	Biochemical characterization and mutational studies of the 8-oxoguanine DNA glycosylase from the hyperthermophilic and radioresistant archaeon <i>Thermococcus gammatolerans</i> . <i>Applied Microbiology and Biotechnology</i> , 2019, 103, 8021-8033.	3.6	8
62	Crystal structure of the condensation domain from lovastatin polyketide synthase. <i>Synthetic and Systems Biotechnology</i> , 2019, 4, 10-15.	3.7	8
63	Evidence for an Enzyme-Catalyzed Rauhu-Carrier Reaction during the Biosynthesis of Spinosyn A. <i>Journal of the American Chemical Society</i> , 2021, 143, 20291-20295.	13.7	8
64	Hexachlorobenzene Monooxygenase Substrate Selectivity and Catalysis: Structural and Biochemical Insights. <i>Applied and Environmental Microbiology</i> , 2020, 87, .	3.1	7
65	Investigating the reactivities of a polyketide synthase module through fluorescent click chemistry. <i>Chemical Communications</i> , 2014, 50, 5276-5278.	4.1	6
66	Cloning, expression, and characterization of a thermostable glucose-6-phosphate dehydrogenase from <i>Thermoanaerobacter tengcongensis</i> . <i>Extremophiles</i> , 2016, 20, 149-156.	2.3	6
67	Structural and Functional Studies of a <i>gem</i> -Dimethylating Methyltransferase from a <i>trans</i> -Acyltransferase Assembly Line. <i>ACS Chemical Biology</i> , 2018, 13, 3306-3314.	3.4	6
68	Directed accumulation of less toxic pimaricin derivatives by improving the efficiency of a polyketide synthase dehydratase domain. <i>Applied Microbiology and Biotechnology</i> , 2017, 101, 2427-2436.	3.6	5
69	Employing 25-Residue Docking Motifs from Modular Polyketide Synthases as Orthogonal Protein Connectors. <i>ACS Synthetic Biology</i> , 2019, 8, 2017-2024.	3.8	5
70	Insights into modular polyketide synthase loops aided by repetitive sequences. <i>Proteins: Structure, Function and Bioinformatics</i> , 2021, 89, 1099-1110.	2.6	4
71	Monitoring Biocatalytic Transformations Mediated by Polyketide Synthase Enzymes in Cell Lysate via Fluorine NMR. <i>Synlett</i> , 2012, 23, 1840-1842.	1.8	3
72	Seven-enzyme <i>in vitro</i> cascade to (3 <i>R</i>)-3-hydroxybutyryl-CoA. <i>Organic and Biomolecular Chemistry</i> , 2019, 17, 1375-1378.	2.8	3

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73	General chemoenzymatic route to two-stereocenter triketides employing assembly line ketoreductases. <i>Chemical Communications</i> , 2020, 56, 157-160.	4.1	3
74	Computational studies on the substrate specificity of an acyltransferase domain from salinomycin polyketide synthase. <i>Catalysis Science and Technology</i> , 2021, 11, 6782-6792.	4.1	3
75	The <i>Streptomyces viridochromogenes</i> product template domain represents an evolutionary intermediate between dehydratase and aldol cyclase of type I polyketide synthases. <i>Communications Biology</i> , 2022, 5, .	4.4	3
76	Polyketidsynthaseâ€Module: eine Neudefinition. <i>Angewandte Chemie</i> , 2017, 129, 4730-4732.	2.0	2
77	Crystal structure of Acetyl-CoA carboxylase (AccB) from <i>Streptomyces antibioticus</i> and insights into the substrate-binding through in silico mutagenesis and biophysical investigations. <i>Computers in Biology and Medicine</i> , 2022, 145, 105439.	7.0	2
78	Structural Biology of Tailoring Domains in Polyketide Synthases. , 2020, , 47-60.		0