Kira J Weissman

List of Publications by Year
in descending order

69 papers	5,786 citations	109137 35 h-index	106150 65 g-index
74 all docs	74 docs citations	74 times ranked	4400 citing authors

#	Article	IF	Citations
1	Engineering the stambomycin modular polyketide synthase yields 37-membered mini-stambomycins. Nature Communications, 2022, 13, 515.	5.8	8
2	Engineering Modular Polyketide Biosynthesis in Streptomyces Using CRISPR/Cas: A Practical Guide. Methods in Molecular Biology, 2022, 2489, 173-200.	0.4	0
3	Towards the sustainable discovery and development of new antibiotics. Nature Reviews Chemistry, 2021, 5, 726-749.	13.8	439
4	Towards improved understanding of intersubunit interactions in modular polyketide biosynthesis: Docking in the enacyloxin IIa polyketide synthase. Journal of Structural Biology, 2020, 212, 107581.	1.3	9
5	Manipulating polyketide stereochemistry by exchange of polyketide synthase modules. Chemical Communications, 2020, 56, 12749-12752.	2.2	9
6	Bacterial Type I Polyketide Synthases. , 2020, , 4-46.		2
7	Insights into a dual function amide oxidase/macrocyclase from lankacidin biosynthesis. Nature Communications, 2018, 9, 3998.	5.8	17
8	Editorial overview: Macromolecular assemblies: Assembly, dynamics and control of activity. Current Opinion in Structural Biology, 2018, 49, vi-vii.	2.6	0
9	Unpackaging the Roles of Streptomyces Natural Products. Cell Chemical Biology, 2017, 24, 1194-1195.	2.5	7
10	Polyketide stereocontrol: a study in chemical biology. Beilstein Journal of Organic Chemistry, 2017, 13, 348-371.	1.3	35
11	Characterization of Intersubunit Communication in the Virginiamycin <i>trans</i>-Acyl Transferase Polyketide Synthase. Journal of the American Chemical Society, 2016, 138, 4155-4167.	6.6	42
12	Genetic engineering of modular PKSs: from combinatorial biosynthesis to synthetic biology. Natural Product Reports, 2016, 33, 203-230.	5.2	130
13	Evaluating Ketoreductase Exchanges as a Means of Rationally Altering Polyketide Stereochemistry. ChemBioChem, 2015, 16, 1357-1364.	1.3	32
14	The structural biology of biosynthetic megaenzymes. Nature Chemical Biology, 2015, 11, 660-670.	3.9	178
15	Uncovering the structures of modular polyketide synthases. Natural Product Reports, 2015, 32, 436-453.	5.2	66
16	Insights into the function of trans-acyl transferase polyketide synthases from the SAXS structure of a complete module. Chemical Science, 2014, 5, 3081-3095.	3.7	33
17	Probing Interactions in Fungal PKS. Chemistry and Biology, 2013, 20, 1089-1091.	6.2	0
18	Heterologous Expression and Genetic Engineering of the Tubulysin Biosynthetic Gene Cluster Using Red/ET Recombineering and Inactivation Mutagenesis. Chemistry and Biology, 2012, 19, 361-371.	6.2	57

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19	Insights into the complex biosynthesis of the leupyrrins in Sorangium cellulosum So ce690. Molecular BioSystems, 2011, 7, 1549.	2.9	35
20	A twist in the tail. Nature Chemical Biology, 2011, 7, 409-411.	3.9	5
21	An Unusual Thioesterase Promotes Isochromanone Ring Formation in Ajudazol Biosynthesis. ChemBioChem, 2010, 11, 1137-1146.	1.3	35
22	Peering into the Black Box of Fungal Polyketide Biosynthesis. ChemBioChem, 2010, 11, 485-488.	1.3	7
23	Insights into Multienzyme Docking in Hybrid PKSâ€“NRPS Megasynthetases Revealed by Heterologous Expression and Genetic Engineering. ChemBioChem, 2010, 11, 1069-1075.	1.3	14
24	Analysis of the Sorangicin Gene Cluster Reinforces the Utility of a Combined Phylogenetic/Retrobiosynthetic Analysis for Deciphering Natural Product Assembly by <i>trans</i>â€AT PKS. ChemBioChem, 2010, 11, 1840-1849.	1.3	64
25	Discovery of 23 Natural Tubulysins from Angiococcus disciformis An d48 and Cystobacter SBCb004. Chemistry and Biology, 2010, 17, 296-309.	6.2	57
26	Biosynthesis of Thuggacins in Myxobacteria: Comparative Cluster Analysis Reveals Basis for Natural Product Structural Diversity. Chemistry and Biology, 2010, 17, 342-356.	6.2	54
27	Insights into Protein-Protein and Enzyme-Substrate Interactions in Modular Polyketide Synthases. Chemistry and Biology, 2010, 17, 705-716.	6.2	41
28	Myxobacterial secondary metabolites: bioactivities and modes-of-action. Natural Product Reports, 2010, 27, 1276.	5.2	263
29	Pretubulysin, a Potent and Chemically Accessible Tubulysin Precursor from <i>Angiococcus disciformis</i>. Angewandte Chemie - International Edition, 2009, 48, 4422-4425.	7.2	81
30	Unusual Chemistry in the Biosynthesis of the Antibiotic Chondrochlorens. Chemistry and Biology, 2009, 16, 70-81.	6.2	50
31	A brief tour of myxobacterial secondary metabolism. Bioorganic and Medicinal Chemistry, 2009, 17, 2121-2136.	1.4	113
32	Chapter 1 Introduction to Polyketide Biosynthesis. Methods in Enzymology, 2009, 459, 3-16.	0.4	90
33	Covalent Linkage Mediates Communication between ACP and TE Domains in Modular Polyketide Synthases. ChemBioChem, 2008, 9, 905-915.	1.3	26
34	Proteinâ€“Protein Interactions in Multienzyme Megasynthetases. ChemBioChem, 2008, 9, 826-848.	1.3	118
35	Improved Catalytic Activity of a Purified Multienzyme from a Modular Polyketide Synthase after Coexpression with <i>Streptomyces</i> Chaperonins in <i>Escherichia coli</i>.. ChemBioChem, 2008, 9, 2962-2966.	1.3	32
36	Taking a Closer Look at Fatty Acid Biosynthesis. ChemBioChem, 2008, 9, 2929-2931.	1.3	7

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37	Production of the Antifungal Isochromanone Ajudazolsâ€…A and B in <i>Chondromyces crocatus</i> Cmâ€…c5: Biosynthetic Machinery and Cytochromeâ€…P450 Modifications. Angewandte Chemie - International Edition, 2008, 47, 4595-4599.	7.2	42
38	Crystal Structure of a Molecular Assembly Line. Angewandte Chemie - International Edition, 2008, 47, 8344-8346.	7.2	4
39	DKxanthene Biosynthesisâ€"Understanding the Basis for Diversity-Oriented Synthesis in Myxobacterial Secondary Metabolism. Chemistry and Biology, 2008, 15, 771-781.	6.2	60
40	Multienzyme docking in hybrid megasynthetases. Nature Chemical Biology, 2008, 4, 75-81.	3.9	80
41	Myxochelin Biosynthesis: Direct Evidence for Two- and Four-Electron Reduction of a Carrier Protein-Bound Thioester. Journal of the American Chemical Society, 2008, 130, 7554-7555.	6.6	66
42	Anatomy of a Fungal Polyketide Synthase. Science, 2008, 320, 186-187.	6.0	5
43	Biosynthesis of (R)-Î²-Tyrosine and Its Incorporation into the Highly Cytotoxic Chondramides Produced by Chondromyces crocatus. Journal of Biological Chemistry, 2007, 282, 21810-21817.	1.6	46
44	Evidence for the Mode of Action of the Highly CytotoxicStreptomyces Polyketide Kendomycin. ChemBioChem, 2007, 8, 1261-1272.	1.3	28
45	Insights into Polyether Biosynthesis from Analysis of the Nigericin Biosynthetic Gene Cluster in Streptomyces sp. DSM4137. Chemistry and Biology, 2007, 14, 703-714.	6.2	103
46	Complete genome sequence of the myxobacterium Sorangium cellulosum. Nature Biotechnology, 2007, 25, 1281-1289.	9.4	354
47	Autonomous folding of interdomain regions of a modular polyketide synthase. FEBS Journal, 2007, 274, 2196-2209.	2.2	9
48	Mutasynthesis â€" uniting chemistry and genetics for drug discovery. Trends in Biotechnology, 2007, 25, 139-142.	4.9	90
49	Evidence for a Protein-Protein Interaction Motif on an Acyl Carrier Protein Domain from a Modular Polyketide Synthase. Chemistry and Biology, 2006, 13, 625-636.	6.2	31
50	Broad Substrate Specificity of Ketoreductases Derived from Modular Polyketide Synthases. ChemBioChem, 2006, 7, 478-484.	1.3	33
51	The Structural Basis for Docking in Modular Polyketide Biosynthesis. ChemBioChem, 2006, 7, 485-494.	1.3	62
52	Single Amino Acid Substitutions Alter the Efficiency of Docking in Modular Polyketide Biosynthesis. ChemBioChem, 2006, 7, 1334-1342.	1.3	21
53	Ketoreduction in Mycolactone Biosynthesis: Insight into Substrate Specificity and Stereocontrol from Studies of Discrete Ketoreductase Domains in vitro. ChemBioChem, 2006, 7, 1935-1942.	1.3	36
54	A New Origin for Chartreusin. Chemistry and Biology, 2005, 12, 512-514.	6.2	6

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55	Molecular Basis of Celmer's Rules: Stereochemistry of Catalysis by Isolated Ketoreductase Domains from Modular Polyketide Synthases. Chemistry and Biology, 2005, 12, 1145-1153.	6.2	101
56	Combinatorial biosynthesis of reduced polyketides. Nature Reviews Microbiology, 2005, 3, 925-936.	13.6	417
57	Polyketide biosynthesis: understanding and exploiting modularity. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2004, 362, 2671-2690.	1.6	41
58	Identification of a Phosphopantetheinyl Transferase for Erythromycin Biosynthesis in Saccharopolyspora erythraea. ChemBioChem, 2004, 5, 116-125.	1.3	64
59	Plumbing New Depths in Drug Discovery. Chemistry and Biology, 2004, 11, 743-745.	6.2	6
60	The Structure of Docking Domains in Modular Polyketide Synthases. Chemistry and Biology, 2003, 10, 723-731.	6.2	185
61	Polyketide biosynthesis: a millennium review. Natural Product Reports, 2001, 18, 380-416.	5.2	1,454
62	Efficient purification and kinetic characterization of a bimodular derivative of the erythromycin polyketide synthase. FEBS Journal, 2000, 267, 520-526.	0.2	17
63	Structural elucidation studies of polyketide tetrasubstituted Î´-lactones by gas chromatography/tandem mass spectrometry and electrospray mass spectrometry. , 1999, 13, 2103-2108.		9
64	The Thioesterase of the Erythromycin-Producing Polyketide Synthase: Influence of Acyl Chain Structure on the Mode of Release of Substrate Analogues from the Acyl Enzyme Intermediates. Angewandte Chemie - International Edition, 1998, 37, 1437-1440.	7.2	47
65	Evaluating precursor-directed biosynthesis towards novel erythromycins through in vitro studies on a bimodular polyketide synthase. Chemistry and Biology, 1998, 5, 743-754.	6.2	44
66	Origin of Starter Units for Erythromycin Biosynthesisâ€. Biochemistry, 1998, 37, 11012-11017.	1.2	31
67	The Molecular Basis of Celmer's Rules:Â The Stereochemistry of the Condensation Step in Chain Extension on the Erythromycin Polyketide Synthaseâ€. Biochemistry, 1997, 36, 13849-13855.	1.2	93
68	Heterometallic mixed triad multiple bonds in metal-porphyrin dimers. Journal of the American Chemical Society, 1994, 116, 9761-9762.	6.6	20
69	Heterometallic and homometallic ruthenium and osmium double bonds in metalloporphyrin and metallotetraazaporphyrin dimers. Journal of the American Chemical Society, 1993, 115, 9309-9310.	6.6	23