Akimasa Miyanaga

List of Publications by Year
in descending order

72	2,014	304743	265206
papers	citations	22 h-index	42 g-index

72	72	72	2277
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Crystal Structure of Cobalt-Containing Nitrile Hydratase. Biochemical and Biophysical Research Communications, 2001, 288, 1169-1174.	2.1	235
2	Biosynthesis of natural products containing Î²-amino acids. Natural Product Reports, 2014, 31, 1056-1073.	10.3	188
3	Flavin-mediated dual oxidation controls an enzymatic Favorskii-type rearrangement. Nature, 2013, 503, 552-556.	27.8	147
4	A Stereoselective Vanadium-Dependent Chloroperoxidase in Bacterial Antibiotic Biosynthesis. Journal of the American Chemical Society, 2011, 133, 4268-4270.	13.7	109
5	Crystal Structure of a Family 54 Î±-l-Arabinofuranosidase Reveals a Novel Carbohydrate-binding Module That Can Bind Arabinose. Journal of Biological Chemistry, 2004, 279, 44907-44914.	3.4	87
6	Direct transfer of starter substrates from type I fatty acid synthase to type III polyketide synthases in phenolic lipid synthesis. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 871-876.	7.1	80
7	Mutational and structural analysis of cobalt-containing nitrile hydratase on substrate and metal binding. FEBS Journal, 2004, 271, 429-438.	0.2	75
8	Proteinâ€“protein interactions in polyketide synthaseâ€“nonribosomal peptide synthetase hybrid assembly lines. Natural Product Reports, 2018, 35, 1185-1209.	10.3	73
9	Discovery and Assembly-Line Biosynthesis of the Lymphostin Pyrroloquinoline Alkaloid Family of mTOR Inhibitors in Salinispora Bacteria. Journal of the American Chemical Society, 2011, 133, 13311-13313.	13.7	70
10	Structure-based analysis of the molecular interactions between acyltransferase and acyl carrier protein in vicenistatin biosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 1802-1807.	7.1	69
11	The Crystal Structure of the Adenylation Enzyme VinN Reveals a Unique Î²-Amino Acid Recognition Mechanism. Journal of Biological Chemistry, 2014, 289, 31448-31457.	3.4	46
12	The family 42 carbohydrate-binding module of family 54 Î±-L-arabinofuranosidase specifically binds the arabinofuranose side chain of hemicellulose. Biochemical Journal, 2006, 399, 503-511.	3.7	44
13	Structural basis of the nonribosomal codes for nonproteinogenic amino acid selective adenylation enzymes in the biosynthesis of natural products. Journal of Industrial Microbiology and Biotechnology, 2019, 46, 515-536.	3.0	44
14	Biochemical and structural analyses of a bacterial endo-Î²-1,2-glucanase reveal a new glycoside hydrolase family. Journal of Biological Chemistry, 2017, 292, 7487-7506.	3.4	42
15	Structural Basis of Proteinâ€“Protein Interactions between a trans-Acting Acyltransferase and Acyl Carrier Protein in Polyketide Disorazole Biosynthesis. Journal of the American Chemical Society, 2018, 140, 7970-7978.	13.7	40
16	Genome Mining of the Hitachimycin Biosynthetic Gene Cluster: Involvement of a Phenylalanine-2,3-aminomutase in Biosynthesis. ChemBioChem, 2015, 16, 909-914.	2.6	36
17	Functional and Structural Analysis of a Î²-Glucosidase Involved in Î²-1,2-Glucan Metabolism in Listeria innocua. PLoS ONE, 2016, 11, e0148870.	2.5	36
18	Mechanistic insight into the substrate specificity of 1,2-Î²-oligoglucan phosphorylase from Lachnoclostridium phytofermentans. Scientific Reports, 2017, 7, 42671.	3.3	36

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19	Mechanisms of Î²-amino acid incorporation in polyketide macrolactam biosynthesis. Current Opinion in Chemical Biology, 2016, 35, 58-64.	6.1	33
20	Structure and function of polyketide biosynthetic enzymes: various strategies for production of structurally diverse polyketides. Bioscience, Biotechnology and Biochemistry, 2017, 81, 2227-2236.	1.3	31
21	Structural Basis for Cyclization Specificity of Two Azotobacter Type III Polyketide Synthases. Journal of Biological Chemistry, 2013, 288, 34146-34157.	3.4	29
22	Function and structure relationships of a Î²â€1,2â€glucooligosaccharideâ€degrading Î²â€glucosidase. FEBS Letters, 2017, 591, 3926-3936.	2.8	26
23	Mutational analysis of N-glycosylation recognition sites on the biochemical properties of Aspergillus kawachii Î±-l-arabinofuranosidase 54. Biochimica Et Biophysica Acta - General Subjects, 2006, 1760, 1458-1464.	2.4	25
24	Michael additions in polyketide biosynthesis. Natural Product Reports, 2019, 36, 531-547.	10.3	23
25	Biochemical characterization and structural insight into aliphatic Î²â€amino acid adenylation enzymes IdnL1 and CmiS6. Proteins: Structure, Function and Bioinformatics, 2017, 85, 1238-1247.	2.6	21
26	Identification of the Fluvirucin B2 (Sch 38518) Biosynthetic Gene Cluster from Actinomadura fulva subsp. indica ATCC 53714: substrate Specificity of the Î²-Amino Acid Selective Adenylating Enzyme FlvN. Bioscience, Biotechnology and Biochemistry, 2016, 80, 935-941.	1.3	20
27	Structural analysis of the dual-function thioesterase SAV606 unravels the mechanism of Michael addition of glycine to an Î±,Î²-unsaturated thioester. Journal of Biological Chemistry, 2017, 292, 10926-10937.	3.4	20
28	Identification, characterization, and structural analyses of a fungal endo-Î²-1,2-glucanase reveal a new glycoside hydrolase family. Journal of Biological Chemistry, 2019, 294, 7942-7965.	3.4	18
29	Structural Characterization of Complex of Adenylation Domain and Carrier Protein by Using Pantetheine Cross-Linking Probe. ACS Chemical Biology, 2020, 15, 1808-1812.	3.4	17
30	Enzymatic synthesis of bis-5-alkylresorcinols by resorcinol-producing type III polyketide synthases. Journal of Antibiotics, 2009, 62, 371-376.	2.0	15
31	An Engineered Aryl Acid Adenylation Domain with an Enlarged Substrate Binding Pocket. Angewandte Chemie - International Edition, 2019, 58, 6906-6910.	13.8	15
32	Diverse allosteric and catalytic functions of tetrameric d-lactate dehydrogenases from three Gram-negative bacteria. AMB Express, 2014, 4, 76.	3.0	14
33	Substrate Recognition by a Dualâ€Function P450 Monooxygenase GfsF Involved in FDâ€891 Biosynthesis. ChemBioChem, 2017, 18, 2179-2187.	2.6	14
34	Characterization and Structural Analysis of a Novel exo-Type Enzyme Acting on Î²-1,2-Glucooligosaccharides from Parabacteroides distasonis. Biochemistry, 2018, 57, 3849-3860.	2.5	14
35	Expression, purification, crystallization and preliminary X-ray analysis of Î±-L-arabinofuranosidase B fromAspergillus kawachii. Acta Crystallographica Section D: Biological Crystallography, 2004, 60, 1286-1288.	2.5	13
36	Characterization of a chimeric enzyme comprising feruloyl esterase and family 42 carbohydrate-binding module. Applied Microbiology and Biotechnology, 2010, 86, 155-161.	3.6	13

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37	The Core of Allosteric Motion in Thermus caldophilus l-Lactate Dehydrogenase. Journal of Biological Chemistry, 2014, 289, 31550-31564.	3.4	12
38	Mechanismâ€Based Trapping of the Quinonoid Intermediate by Using the K276R Mutant of PLPâ€Dependent 3â€Aminobenzoate Synthase PctV in the Biosynthesis of Pactamycin. ChemBioChem, 2015, 16, 2484-2490.	2.6	12
39	Characterization of Polyphosphate Glucokinase SCO5059 fromStreptomyces coelicolorA3(2). Bioscience, Biotechnology and Biochemistry, 2013, 77, 2322-2324.	1.3	11
40	Biochemical and Structural Analysis of FomD That Catalyzes the Hydrolysis of Cytidylyl (S)-2-Hydroxypropylphosphonate in Fosfomycin Biosynthesis. Biochemistry, 2018, 57, 4858-4866.	2.5	11
41	Structural Basis of Sequential Allosteric Transitions in Tetrameric <scp>d</scp>-Lactate Dehydrogenases from Three Gram-Negative Bacteria. Biochemistry, 2018, 57, 5388-5406.	2.5	11
42	The crystal structure of the amidohydrolase VinJ shows a unique hydrophobic tunnel for its interaction with polyketide substrates. FEBS Letters, 2014, 588, 995-1000.	2.8	10
43	Structural Insight into the Reaction Mechanism of Ketosynthase-Like Decarboxylase in a Loading Module of Modular Polyketide Synthases. ACS Chemical Biology, 2022, 17, 198-206.	3.4	10
44	A molecular design that stabilizes active state in bacterial allosteric L-lactate dehydrogenases. Journal of Biochemistry, 2011, 150, 579-591.	1.7	9
45	The crystal structure of d-mandelate dehydrogenase reveals its distinct substrate and coenzyme recognition mechanisms from those of 2-ketopantoate reductase. Biochemical and Biophysical Research Communications, 2013, 439, 109-114.	2.1	9
46	Functional and structural characterization of IdnL7, an adenylation enzyme involved in incednine biosynthesis. Acta Crystallographica Section F, Structural Biology Communications, 2019, 75, 299-306.	0.8	8
47	New Structural Insights on Carbohydrate-active Enzymes. Journal of Applied Glycoscience (1999), 2007, 54, 95-102.	0.7	7
48	Parallel Postâ€Polyketide Synthase Modification Mechanism Involved in FDâ€891 Biosynthesis in Streptomyces graminofaciens Aâ€8890. ChemBioChem, 2016, 17, 233-238.	2.6	7
49	Mutational Biosynthesis of Hitachimycin Analogs Controlled by the Î²-Amino Acidâ€“Selective Adenylation Enzyme HitB. ACS Chemical Biology, 2021, 16, 539-547.	3.4	7
50	Substrate specificity of Chondroitinase ABC I based on analyses of biochemical reactions and crystal structures in complex with disaccharides. Glycobiology, 2021, 31, 1571-1581.	2.5	7
51	Proteinâ€Protein Recognition Involved in the Intermodular Transacylation Reaction in Modular Polyketide Synthase in the Biosynthesis of Vicenistatin. ChemBioChem, 2022, 23, .	2.6	7
52	Molecular Anatomy of the Alkaliphilic Xylanase from Bacillus halodurans C-125. Journal of Biochemistry, 2007, 141, 709-717.	1.7	6
53	The ternary complex structure of d -mandelate dehydrogenase with NADH and anilino(oxo)acetate. Biochemical and Biophysical Research Communications, 2017, 486, 665-670.	2.1	6
54	Structural Analysis of the Glycine Oxidase Homologue CmiS2 Reveals a Unique Substrate Recognition Mechanism for Formation of a Î²-Amino Acid Starter Unit in Cremimycin Biosynthesis. Biochemistry, 2019, 58, 2706-2709.	2.5	6

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55	Complex structure of the acyltransferase VinK and the carrier protein VinL with a pantetheine cross-linking probe. Acta Crystallographica Section F, Structural Biology Communications, 2021, 77, 294-302.	0.8	6
56	Crystallization and preliminary X-ray analysis of xylanase B fromClostridium stercorarium. Acta Crystallographica Section D: Biological Crystallography, 2004, 60, 342-343.	2.5	5
57	Functional and Structural Analyses of the Split-Dehydratase Domain in the Biosynthesis of Macrolactam Polyketide Cremimycin. Biochemistry, 2019, 58, 4799-4803.	2.5	5
58	Stereochemistry in the Reaction of the myo-Inositol Phosphate Synthase Ortholog Ari2 during Aristeromycin Biosynthesis. Biochemistry, 2019, 58, 5112-5116.	2.5	5
59	Biochemical and Structural Analysis of a Dehydrogenase, KanD2, and an Aminotransferase, KanS2, That Are Responsible for the Construction of the Kanosamine Moiety in Kanamycin Biosynthesis. Biochemistry, 2020, 59, 1470-1473.	2.5	5
60	Stepwise Postâ€glycosylation Modification of Sugar Moieties in Kanamycin Biosynthesis. ChemBioChem, 2021, 22, 1668-1675.	2.6	3
61	Crystallization and preliminary X-ray diffraction analysis of Lin1840, a putative Î²-glucosidase fromListeria innocua. Acta Crystallographica Section F, Structural Biology Communications, 2014, 70, 1398-1401.	0.8	2
62	Generation of incednine derivatives by mutasynthesis. Journal of Antibiotics, 2020, 73, 794-797.	2.0	2
63	One-pot enzymatic synthesis of 2-deoxy-scyllo-inosose from <scp>d</scp>-glucose and polyphosphate. Bioscience, Biotechnology and Biochemistry, 2021, 85, 108-114.	1.3	2
64	Phenolic Lipids Synthesized by Type III Polyketide Synthases. , 2017, , 1-11.		2
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