

# Akihiro Ishiwata

## List of Publications by Year in descending order

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68  
papers

1,831  
citations

279487

23  
h-index

288905

40  
g-index

85  
all docs

85  
docs citations

85  
times ranked

1220  
citing authors

#	ARTICLE	IF	CITATIONS
1	Recent advances in stereoselective glycosylation through intramolecular aglycon delivery. <i>Organic and Biomolecular Chemistry</i> , 2010, 8, 3596.	1.5	162
2	Stereoselective Synthesis of a Fragment of Mycobacterial Arabinan. <i>Organic Letters</i> , 2006, 8, 5525-5528.	2.4	113
3	Synthesis of Docosasaccharide Arabinan Motif of Mycobacterial Cell Wall. <i>Journal of the American Chemical Society</i> , 2011, 133, 2275-2291.	6.6	100
4	NAP Ether Mediated Intramolecular Aglycon Delivery: A Unified Strategy for 1,2- <i>cis</i> -Glycosylation. <i>European Journal of Organic Chemistry</i> , 2008, 2008, 4250-4263.	1.2	81
5	Ketene Recognizes 1,3-Dienes in Their <i>s</i> -Cis Forms through [4 + 2] (Diels-Alder) and [2 + 2] (Staudinger) Reactions. An Innovation of Ketene Chemistry. <i>Journal of the American Chemical Society</i> , 1999, 121, 4771-4786.	6.6	74
6	High-Resolution X-ray Structure of an Acyl-Enzyme Species for the Class D OXA-10 $\beta$ -Lactamase. <i>Journal of the American Chemical Society</i> , 2002, 124, 2461-2465.	6.6	73
7	Synergistic solvent effect in 1,2- <i>cis</i> -glycoside formation. <i>Tetrahedron</i> , 2008, 64, 92-102.	1.0	72
8	Stereoselective Synthesis of $\beta$ -Rhamnopyranosides. <i>Journal of the American Chemical Society</i> , 2008, 130, 6330-6331.	6.6	62
9	The First Structural and Mechanistic Insights for Class D $\beta$ -Lactamases: Evidence for a Novel Catalytic Process for Turnover of $\beta$ -Lactam Antibiotics. <i>Journal of the American Chemical Society</i> , 2000, 122, 6132-6133.	6.6	51
10	A novel total synthesis of (+)-himbacine, a potent antagonist of the muscarinic receptor of M2 subtype. <i>Tetrahedron Letters</i> , 1999, 40, 3399-3402.	0.7	46
11	Synthetic Study and Structural Analysis of the Antifreeze Agent Xylomannan from <i>Upis ceramboides</i> . <i>Journal of the American Chemical Society</i> , 2011, 133, 19524-19535.	6.6	46
12	A Novel $\beta$ -Lactamase Activity from a Penicillin-binding Protein of <i>Treponema pallidum</i> and Why Syphilis Is Still Treatable with Penicillin. <i>Journal of Biological Chemistry</i> , 2004, 279, 14917-14921.	1.6	45
13	Studies toward the Total Synthesis of Popolohuanone E: Enantioselective Synthesis of 8-O-MethylpopolohuanoneE. <i>Organic Letters</i> , 2001, 3, 2701-2704.	2.4	43
14	Synthesis and TNF- $\alpha$ inducing activities of mycoloyl-arabinan motif of mycobacterial cell wall components. <i>Bioorganic and Medicinal Chemistry</i> , 2006, 14, 3049-3061.	1.4	43
15	Crystal structure of glycoside hydrolase family 127 $\beta$ -l-arabinofuranosidase from <i>Bifidobacterium longum</i> . <i>Biochemical and Biophysical Research Communications</i> , 2014, 447, 32-37.	1.0	35
16	Stereoselective synthesis of Arabidopsis CLAVATA3 (CLV3) glycopeptide, unique protein post-translational modifications of secreted peptide hormone in plant. <i>Organic and Biomolecular Chemistry</i> , 2013, 11, 5892.	1.5	34
17	Synthesis of the Highly Glycosylated Hydrophilic Motif of Extensins. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 9812-9816.	7.2	33
18	Accelerated glycosylation under frozen conditions. <i>Tetrahedron Letters</i> , 2004, 45, 3929-3932.	0.7	32

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19	A stereoselective 1,2-cis glycosylation toward the synthesis of a novel N-linked glycan from the Gram-negative bacterium, <i>Campylobacter jejuni</i> . <i>Carbohydrate Research</i> , 2006, 341, 1557-1573.	1.1	32
20	Synthetic studies of himbacine, a potent antagonist of the muscarinic M2 subtype receptor 1. Stereoselective total synthesis and antagonistic activity of enantiomeric pairs of himbacine and (2 <i>S</i> ,6 <i>R</i> )-diepilhimbacine, 4-epilhimbacine, and novel himbacine congeners. <i>Tetrahedron</i> , 2002, 58, 9903-9923.	1.0	30
21	Synthesis of N-linked glycan derived from Gram-negative bacterium, <i>Campylobacter jejuni</i> . <i>Tetrahedron</i> , 2007, 63, 8181-8198.	1.0	29
22	Synthesis of pseudaminic acid, a unique nonulopyranoside derived from pathogenic bacteria through 6-deoxy-AltdiNAc. <i>Tetrahedron Letters</i> , 2011, 52, 418-421.	0.7	29
23	Preparation of p-nitrophenyl $\beta$ -l-arabinofuranoside as a substrate of $\beta$ -l-arabinofuranosidase. <i>Carbohydrate Research</i> , 2013, 382, 95-100.	1.1	28
24	Bimodal Glycosyl Donors Protected by 2- <i>O</i> -( <i>ortho</i> -Tosylamido)benzyl Group. <i>Organic Letters</i> , 2018, 20, 4384-4388.	2.4	25
25	Synthetic Study of Pinnatoxin A: Intramolecular Diels-Alder Approach to the AG-ring. <i>Synlett</i> , 1999, 1999, 692-694.	1.0	23
26	High throughput screening of O-glycosylation conditions. <i>Tetrahedron Letters</i> , 2005, 46, 3521-3524.	0.7	23
27	Reaction of <i>o</i> -Benzyl with Trophosphone Involving Biradical Processes. <i>Journal of Organic Chemistry</i> , 2007, 72, 2832-2841.	1.7	23
28	Development of highly efficient and stereocontrolled <i>O</i> -glycosylation methodologies and its application to the construction of bacterial glycans. <i>Trends in Glycoscience and Glycotechnology</i> , 2009, 21, 266-289.	0.0	22
29	Synthesis of asparagine-linked bacillosamine. <i>Carbohydrate Research</i> , 2006, 341, 1922-1929.	1.1	21
30	Synthesis of undecaprenyl pyrophosphate-linked glycans as donor substrates for bacterial protein N-glycosylation. <i>Tetrahedron</i> , 2009, 65, 6310-6319.	1.0	21
31	Synthetic Study of Pinnatoxin A: Stereoselective Synthesis of the BCD-ring Unit, a Novel 6,5,6-Bis-spiroketal System. <i>Synlett</i> , 1998, 1998, 298-300.	1.0	20
32	Stereodivergent Mannosylation Using 2- <i>O</i> -( <i>ortho</i> -Tosylamido)benzyl Group. <i>Organic Letters</i> , 2018, 20, 4833-4837.	2.4	20
33	Synthetic Study of Pinnatoxin A: Intramolecular Alkylation Approach to the G-ring. <i>Synlett</i> , 1999, 1999, 695-696.	1.0	19
34	6-(Hydroxyalkyl)penicillanates as Probes for Mechanisms of $\beta$ -Lactamases. <i>Journal of Antibiotics</i> , 2000, 53, 1022-1027.	1.0	19
35	Synthesis of complex-type glycans derived from parasitic helminths. <i>Carbohydrate Research</i> , 2007, 342, 675-695.	1.1	19
36	Synthesis of N-Linked Glycosyl Asparagine Derivatives with Unprotected Sugar Components. <i>Synlett</i> , 2002, 2002, 0634-0636.	1.0	17

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37	Chemoselective peptide bond formation using formyl-substituted nitrophenylthio ester. <i>Tetrahedron Letters</i> , 2003, 44, 3187-3190.	0.7	17
38	Why Clinically Used Tazobactam and Sulbactam Are Poor Inhibitors of OXA-10 $\beta$ -Lactamase: Raman Crystallographic Evidence. <i>Biochemistry</i> , 2008, 47, 4094-4101.	1.2	16
39	Cysteine Nucleophiles in Glycosidase Catalysis: Application of a Covalent $\beta$ -Arabinofuranosidase Inhibitor. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 5754-5758.	7.2	16
40	Highly Regioselective Tin-Mediated Ring-Opening of 2,3-Epoxy Alcohol Derivatives With Trimethylsilyl Halide. <i>Synlett</i> , 1995, 1995, 1004-1006.	1.0	15
41	Regiospecific Syntheses of $\beta$ -(1R-Hydroxyoctyl)penicillanic Acid and $\beta$ -(1R-Hydroxyoctyl)penicillanic Acid as Mechanistic Probes of Class D $\beta$ -Lactamases. <i>Organic Letters</i> , 2009, 11, 2515-2518.	2.4	15
42	A Novel and Convenient Synthesis of 2-Aryl-4-methylenetetrahydrofurans from 2-(Trimethylsilyloxymethyl)allyltrimethylsilane and Acetals. <i>Tetrahedron Letters</i> , 1995, 36, 5581-5584.	0.7	14
43	Effects of frozen conditions on stereoselectivity and velocity of O-glycosylation reactions. <i>Bioorganic and Medicinal Chemistry</i> , 2010, 18, 3687-3695.	1.4	13
44	Identification of difructose dianhydride I synthase/hydrolase from an oral bacterium establishes a novel glycoside hydrolase family. <i>Journal of Biological Chemistry</i> , 2021, 297, 101324.	1.6	13
45	Stereoselective Reduction of $\beta$ -Bromopenicillanates by Tributylphosphine. <i>Organic Letters</i> , 2000, 2, 2889-2892.	2.4	11
46	Zn <sup>2+</sup> -Directed Stereocontrolled $\beta$ -Glucosylation. <i>Organic Letters</i> , 2021, 23, 6841-6845.	2.4	11
47	Unified Strategy toward Stereocontrolled Assembly of Various Glucans Based on Bimodal Glycosyl Donors. <i>Journal of Organic Chemistry</i> , 2020, 85, 5536-5558.	1.7	10
48	Novel 3-O- $\beta$ -Galactosyl- $\beta$ -Arabinofuranosidase for the Assimilation of Gum Arabic Arabinogalactan Protein in <i>Bifidobacterium longum</i> subsp. <i>longum</i> . <i>Applied and Environmental Microbiology</i> , 2021, 87, .	1.4	10
49	Intramolecular Aglycon Delivery and Its Application to Stereoselective Synthesis of Glycans. Yuki Gosei Kagaku Kyokaiishi/ <i>Journal of Synthetic Organic Chemistry</i> , 2012, 70, 382-394.	0.0	9
50	Tin(II) Trifluoromethanesulfonate-Catalyzed Highly Selective Synthesis of 2-Substituted 4-Methylenetetrahydropyrans from Trimethyl{2-[2-(trimethylsilyloxy)ethyl]allyl}silane and Acetals. <i>Bulletin of the Chemical Society of Japan</i> , 2001, 74, 569-570.	2.0	8
51	Stereoselective Synthesis of $\beta$ -manno-Glycosides. , 2008, , 1279-1312.		8
52	Zinc(II) Iodide-Directed $\beta$ -Mannosylation: Reaction Selectivity, Mode, and Application. <i>Journal of Organic Chemistry</i> , 2021, 86, 16901-16915.	1.7	8
53	Mechanism of Cooperative Degradation of Gum Arabic Arabinogalactan Protein by <i>Bifidobacterium longum</i> Surface Enzymes. <i>Applied and Environmental Microbiology</i> , 2022, 88, aem0218721.	1.4	8
54	Synthesis of naturally occurring $\beta$ -l-arabinofuranosyl-l-arabinofuranoside structures towards the substrate specificity evaluation of $\beta$ -l-arabinofuranosidase. <i>Bioorganic and Medicinal Chemistry</i> , 2022, 68, 116849.	1.4	8

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55	Inhibition of $\beta$ -Lactamases by 6,6-Bis(hydroxymethyl)penicillanate. <i>Bioorganic Chemistry</i> , 2001, 29, 140-145.	2.0	6
56	N-Glycosylation with Synthetic Undecaprenyl Pyrophosphate-Linked Oligosaccharide to Oligopeptides by PglB Oligosaccharyltransferase from <i>Campylobacter jejuni</i> . <i>ChemBioChem</i> , 2015, 16, 731-737.	1.3	6
57	Substrate complex structure, active site labeling and catalytic role of the zinc ion in cysteine glycosidase. <i>Glycobiology</i> , 2022, 32, 171-180.	1.3	6
58	Accelerated O-Glycosylation under Frozen Conditions and Its Application to the Synthesis of Complex Glycans. <i>Trends in Glycoscience and Glycotechnology</i> , 2012, 24, 179-189.	0.0	5
59	Norcaradiene intermediates in mass spectral fragmentations of tropone and tropothione Electronic supplementary information (ESI) available: reaction paths supporting Figs. 3-6. See <a href="http://www.rsc.org/suppdata/p2/b1/b102127n/">http://www.rsc.org/suppdata/p2/b1/b102127n/</a> . <i>Perkin Transactions II RSC</i> , 2001, , 2202-2210.	1.1	4
60	Synthetic Study on Glycoconjugates Containing 1,2- <i>cis</i> Glycoside and Their Application. <i>Trends in Glycoscience and Glycotechnology</i> , 2019, 31, SE53-SE54.	0.0	4
61	Tropone versus tropothione. Theoretical and experimental analyses of cycloadditions with maleic anhydride. <i>Computational and Theoretical Chemistry</i> , 1999, 461-462, 359-377.	1.5	3
62	Cysteine Nucleophiles in Glycosidase Catalysis: Application of a Covalent $\beta$ -Arabinofuranosidase Inhibitor. <i>Angewandte Chemie</i> , 2021, 133, 5818-5822.	1.6	3
63	Biotechnological Approaches toward the Synthesis of Eukaryotic N-Linked Glycoprotein. <i>Trends in Glycoscience and Glycotechnology</i> , 2012, 24, 225-227.	0.0	3
64	Recent Chemical and Chemoenzymatic Strategies to Complex-Type N-Glycans. <i>Frontiers in Chemistry</i> , 2022, 10, .	1.8	3
65	Drug-Resistant Tuberculosis and Inhibition of Biosynthetic Enzymes for Polysaccharides in Mycobacterial Cell Wall. <i>Trends in Glycoscience and Glycotechnology</i> , 2011, 23, 106-107.	0.0	2
66	Antibacterials as wonder drugs and how their effectiveness is being compromised. <i>Pharmacochemistry Library</i> , 2002, 32, 193-205.	0.1	0
67	Bioorganic Chemistry of Peptidoglycan as the Target of Antibacterials. <i>Trends in Glycoscience and Glycotechnology</i> , 2010, 22, 45-47.	0.0	0
68	Synthetic Study on Glycoconjugates Containing 1,2- <i>cis</i> Glycoside and Their Application. <i>Trends in Glycoscience and Glycotechnology</i> , 2019, 31, SJ53-SJ54.	0.0	0