

# Masayuki Izumi

## List of Publications by Year in descending order

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75  
papers

1,868  
citations

218677

26  
h-index

289244

40  
g-index

90  
all docs

90  
docs citations

90  
times ranked

1638  
citing authors

#	ARTICLE	IF	CITATIONS
1	Hinge Sugar as a Movable Component of an Excimer Fluorescence Sensor. <i>Organic Letters</i> , 2004, 6, 1489-1492.	4.6	136
2	Chemical Synthesis of an Erythropoietin Glycoform Containing a Complex $\alpha$ -Type Disialyloligosaccharide. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 3567-3572.	13.8	135
3	Chemical synthesis of erythropoietin glycoforms for insights into the relationship between glycosylation pattern and bioactivity. <i>Science Advances</i> , 2016, 2, e1500678.	10.3	102
4	Regeneration of PAPS for the Enzymatic Synthesis of Sulfated Oligosaccharides. <i>Journal of Organic Chemistry</i> , 2000, 65, 5565-5574.	3.2	94
5	Microbial Glycosyltransferases for Carbohydrate Synthesis: $\alpha$ -2,3-Sialyltransferase from <i>Neisseria gonorrhoeae</i> . <i>Journal of the American Chemical Society</i> , 2001, 123, 10909-10918.	13.7	70
6	Chemical Synthesis of Intentionally Misfolded Homogeneous Glycoprotein: A Unique Approach for the Study of Glycoprotein Quality Control. <i>Journal of the American Chemical Society</i> , 2012, 134, 7238-7241.	13.7	66
7	Both isoforms of human UDP-glucose:glycoprotein glucosyltransferase are enzymatically active. <i>Glycobiology</i> , 2014, 24, 344-350.	2.5	66
8	Expression of $\alpha$ -2,8/2,9-Polysialyltransferase from <i>Escherichia coli</i> K92. <i>Journal of Biological Chemistry</i> , 1999, 274, 35139-35146.	3.4	52
9	Localized Surface Plasmon Resonance Detection of Biological Toxins Using Cell Surface Oligosaccharides on Glyco Chips. <i>ACS Applied Materials &amp; Interfaces</i> , 2013, 5, 4173-4180.	8.0	52
10	Functional analysis of endoplasmic reticulum glucosyltransferase (UGGT): Synthetic chemistry's initiative in glycobiology. <i>Seminars in Cell and Developmental Biology</i> , 2015, 41, 90-98.	5.0	46
11	A tong-like fluorescence sensor for metal ions: perfect conformational switch of hinge sugar by pyrene stacking. <i>Organic and Biomolecular Chemistry</i> , 2004, 2, 3548.	2.8	43
12	Synthesis of 5-Thio-l-fucose-Containing Disaccharides, as Sequence-Specific Inhibitors, and $\alpha$ -l-Fucosyllactose, as a Substrate of $\alpha$ -l-Fucosidases. <i>Journal of Organic Chemistry</i> , 1997, 62, 992-998.	3.2	42
13	Enzymatic Regeneration of $\gamma$ -Phosphoadenosine-5'-Phosphosulfate Using Aryl Sulfotransferase for the Preparative Enzymatic Synthesis of Sulfated Carbohydrates. <i>Angewandte Chemie - International Edition</i> , 1999, 38, 2747-2750.	13.8	42
14	Semisynthesis of Intact Complex-Type Triantennary Oligosaccharides from a Biantennary Oligosaccharide Isolated from a Natural Source by Selective Chemical and Enzymatic Glycosylation. <i>Journal of the American Chemical Society</i> , 2016, 138, 3461-3468.	13.7	41
15	Efficient synthesis of glycopeptide-l-thioesters with a high-mannose type oligosaccharide by means of tert-Boc-solid phase peptide synthesis. <i>Carbohydrate Research</i> , 2012, 364, 41-48.	2.3	38
16	Folding of Synthetic Homogeneous Glycoproteins in the Presence of a Glycoprotein Folding Sensor Enzyme. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 2883-2887.	13.8	38
17	Bisubstrate Analogues as Glycosyltransferase Inhibitors. <i>Current Topics in Medicinal Chemistry</i> , 2009, 9, 87-105.	2.1	35
18	Chemical Synthesis of an Erythropoietin Glycoform Having a Triantennary N-Glycan: Significant Change of Biological Activity of Glycoprotein by Addition of a Small Molecular Weight Trisaccharide. <i>Journal of the American Chemical Society</i> , 2020, 142, 20671-20679.	13.7	33

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19	A facile synthesis of 5-thio-l-fucose and 5-thio-d-arabinose from d-arabinose. Carbohydrate Research, 1996, 280, 287-302.	2.3	31
20	Synthesis of Bisubstrate and Donor Analogues of Sialyltransferase and Their Inhibitory Activities. Journal of Organic Chemistry, 2005, 70, 8817-8824.	3.2	31
21	Monitoring of Glycoprotein Quality Control System with a Series of Chemically Synthesized Homogeneous Native and Misfolded Glycoproteins. Journal of the American Chemical Society, 2018, 140, 17499-17507.	13.7	31
22	Combinatorial synthesis of oligosaccharide library of 2,6-dideoxysugars. Tetrahedron Letters, 1998, 39, 2079-2082.	1.4	30
23	Efficient and stereoselective 1,2-cis glycoside formation of 5-thioaldopyranoses: glycosylation with peracetylated 5-thio-D- arabinopyranosyl and 5-thio-L-fucopyranosyl trichloroacetimidates. Tetrahedron Letters, 1993, 34, 4949-4952.	1.4	27
24	Mannose-BSA Conjugates: Comparison Between Commercially Available Linkers in Reactivity and Bioactivity. Journal of Carbohydrate Chemistry, 2003, 22, 317-329.	1.1	27
25	Thiasugars: Potential Glycosidase Inhibitors. Current Topics in Medicinal Chemistry, 2009, 9, 76-86.	2.1	26
26	Design and Synthesis of Potential Inhibitors of Golgi Endo- $\alpha$ -mannosidase: 5-Thio-d-glucopyranosyl-(1 $\rightarrow$ 3)-1-deoxymannojirimycin and Methyl 5-Thio-d-glucopyranosyl-(1 $\rightarrow$ 3)-5-thio-l-d-mannopyranoside. Journal of Organic Chemistry, 1998, 63, 4811-4816.	3.2	25
27	Synthesis of polyanionic glycopolymers for the facile assembly of glycosyl arrays. Tetrahedron, 2005, 61, 5895-5905.	1.9	24
28	Substrate Recognition of Glycoprotein Folding Sensor UGGT Analyzed by Site-Specifically <sup>15</sup> N-Labeled Glycopeptide and Small Glycopeptide Library Prepared by Parallel Native Chemical Ligation. Journal of the American Chemical Society, 2017, 139, 11421-11426.	13.7	23
29	Decoration of proteins with sugar chains: recent advances in glycoprotein synthesis. Current Opinion in Chemical Biology, 2014, 22, 92-99.	6.1	22
30	Synthesis of 5-thio-l-fucose-containing blood group antigens H-type 2 and Lewis X (Lex). Tetrahedron Letters, 1996, 37, 1809-1812.	1.4	21
31	Peptide-sugar hybrids: Like peptide, like oligosaccharide. Tetrahedron Letters, 1997, 38, 7167-7170.	1.4	21
32	Efficient synthesis of polypeptide-thioester by the method combining polypeptide expression and chemical activation for the semi-synthesis of interferon- $\beta$ having oligosaccharides. Journal of Peptide Science, 2014, 20, 958-963.	1.4	20
33	Synthesis of 2-[(2-pyridyl)amino]ethyl $\beta$ -d-lactosaminide and evaluation of its acceptor ability for sialyltransferase: a comparison with 4-methylumbelliferyl and dansyl $\beta$ -d-lactosaminide. Carbohydrate Research, 2004, 339, 1545-1550.	2.3	18
34	Microbial Sialyltransferases for Carbohydrate Synthesis.. Trends in Glycoscience and Glycotechnology, 2001, 13, 345-360.	0.1	18
35	Synthesis of bisubstrate analogues targeting $\alpha$ -1,3-fucosyltransferase and their activities. Organic and Biomolecular Chemistry, 2006, 4, 681-690.	2.8	17
36	Safe and efficient Boc-SPPS for the synthesis of glycopeptide-thioesters. Journal of Peptide Science, 2014, 20, 98-101.	1.4	17

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37	Effects of domain composition on catalytic activity of human UDP-glucose:glycoprotein glucosyltransferases. <i>Glycobiology</i> , 2016, 26, 999-1006.	2.5	16
38	Semisynthesis of a Posttranslationally Modified Protein by Using Chemical Cleavage and Activation of an Expressed Fusion Polypeptide. <i>Chemistry - A European Journal</i> , 2014, 20, 10425-10430.	3.3	15
39	Synthesis of Glc <sub>1</sub> Man <sub>9</sub> Glycoprotein Probes by a Misfolding/Enzymatic Glucosylation/Misfolding Sequence. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 3968-3971.	13.8	15
40	Regioselective Î±-Peptide Bond Formation Through the Oxidation of Amino Thioacids. <i>Biochemistry</i> , 2019, 58, 1672-1678.	2.5	13
41	Thiasugars as Potential Glycosidase Inhibitor.. <i>Yuki Gosei Kagaku Kyokaiishi/Journal of Synthetic Organic Chemistry</i> , 2002, 60, 774-782.	0.1	12
42	Semisynthesis of Erythropoietin Analog Having Three Oligosaccharides. <i>Journal of Carbohydrate Chemistry</i> , 2011, 30, 306-319.	1.1	10
43	Synthesis and Evaluation of 5-Thio-L-Fucose-Containing Oligosaccharide. <i>Chemistry - A European Journal</i> , 2005, 11, 3032-3038.	3.3	9
44	Total Synthesis of <i>O</i> -GalNAcylated Antifreeze Glycoprotein using the Switchable Reactivity of Peptidylâ€N- <i>pivaloylguanidine</i> . <i>Chemistry - A European Journal</i> , 2017, 23, 9253-9257.	3.3	9
45	Semisynthesis of Complex-Type Biantennary Oligosaccharides Containing Lactosamine Repeating Units from a Biantennary Oligosaccharide Isolated from a Natural Source. <i>Journal of Organic Chemistry</i> , 2018, 83, 443-451.	3.2	9
46	Structural diversification of bola-amphiphilic glycolipid-type supramolecular hydrogelators exhibiting colour changes along with the gelâ€sol transition. <i>Soft Matter</i> , 2020, 16, 7274-7278.	2.7	9
47	A Facile Synthesis of 5-Thio-L-fucose and 3-O-Allyl-L-fucose Triacetate from D-Arabinose.. <i>Chemistry Letters</i> , 1992, , 25-28.	1.3	8
48	Chemical Synthesis of Glycoproteins with the Specific Installation of Gradientâ€Enriched <sup>15</sup> N-Labeled Amino Acids for Getting Insights into Glycoprotein Behavior. <i>Chemistry - A European Journal</i> , 2017, 23, 6579-6585.	3.3	8
49	Expanding the Scope of Native Chemical Ligation in Glycopeptide Synthesis. <i>International Journal of Peptide Research and Therapeutics</i> , 2010, 16, 191-198.	1.9	7
50	Synthesis of misfolded glycoprotein dimers through native chemical ligation of a dimeric peptide thioester. <i>Organic and Biomolecular Chemistry</i> , 2016, 14, 6088-6094.	2.8	7
51	An efficient solidâ€phase synthesis of peptidylâ€N-acetylguanidines for use in native chemical ligation. <i>Journal of Peptide Science</i> , 2016, 22, 343-351.	1.4	7
52	Chemical Modification of the N Termini of Unprotected Peptides for Semisynthesis of Modified Proteins by Utilizing a Hydrophilic Protecting Group. <i>Chemistry - A European Journal</i> , 2019, 25, 10197-10203.	3.3	7
53	Acceleration and Deceleration Factors on the Hydrolysis Reaction of 4,6- <i>O</i> -Benzylidene Acetal Group. <i>Journal of Organic Chemistry</i> , 2020, 85, 15849-15856.	3.2	7
54	Synthesis of Glycopeptides. <i>Methods in Enzymology</i> , 2010, 478, 503-519.	1.0	6

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55	Elucidating the Function of Complex-Type Oligosaccharides by Use of Chemical Synthesis of Homogeneous Glycoproteins. <i>Israel Journal of Chemistry</i> , 2011, 51, 917-929.	2.3	6
56	Misfolded Glycoproteins as Probes for Analysis of Folding Sensor Enzyme UDP-Glucose. <i>Trends in Glycoscience and Glycotechnology</i> , 2013, 25, 1-12.	0.1	6
57	Synthesis of d, l-amino acid derivatives bearing a thiol at the $\beta$ -position and their enzymatic optical resolution. <i>Tetrahedron Letters</i> , 2015, 56, 6565-6568.	1.4	6
58	Direct assay for endo- $\alpha$ -mannosidase substrate preference on correctly folded and misfolded model glycoproteins. <i>Carbohydrate Research</i> , 2016, 434, 94-98.	2.3	6
59	Synthesis of Glc <sub>1</sub> Man <sub>9</sub> -Glycoprotein Probes by a Misfolding/Enzymatic Glucosylation/Misfolding Sequence. <i>Angewandte Chemie</i> , 2016, 128, 4036-4039.	2.0	6
60	Carbohydrate-Based Sensing Materials for Detection of Bacterial Toxins. <i>Trends in Glycoscience and Glycotechnology</i> , 2005, 17, 107-119.	0.1	5
61	Chemical Synthesis of a Synthetic Analogue of the Sialic Acid-Binding Lectin Siglec-7. <i>ChemBioChem</i> , 2014, 15, 2503-2507.	2.6	4
62	Chemical Synthesis of Homogeneous Glycoproteins for the Study of Glycoprotein Quality Control System. <i>Israel Journal of Chemistry</i> , 2015, 55, 306-314.	2.3	4
63	Synthesis and Self-Assembly Properties of Bola-Amphiphilic Glycosylated Lipopeptide-Type Supramolecular Hydrogels Showing Colour Changes Along with Gel-Sol Transition. <i>International Journal of Molecular Sciences</i> , 2021, 22, 1860.	4.1	4
64	Syntheses and Glycosidation Reactions of 6-Thiosialosyl Donors. <i>Letters in Organic Chemistry</i> , 2008, 5, 262-264.	0.5	3
65	Efficient Synthesis of L-galactose from D-galactose. <i>Journal of Carbohydrate Chemistry</i> , 2015, 34, 560-566.	1.1	3
66	Evaluation of the effect of post-translational modification toward protein structure: Chemical synthesis of glycosyl crambins having either a high mannose-type or a complex-type oligosaccharide. <i>Biopolymers</i> , 2016, 106, 446-452.	2.4	3
67	Chemical Synthesis of Ubiquitinated High-Mannose-Type N-Glycoprotein CCL1 in Different Folding States. <i>Journal of Organic Chemistry</i> , 2020, 85, 16024-16034.	3.2	3
68	$\beta$ -Selective Glycosidation of a 5-Thioglucoamine Derivative. <i>Chemistry Letters</i> , 2008, 37, 1288-1289.	1.3	2
69	Inside Cover: Chemical Synthesis of an Erythropoietin Glycoform Containing a Complex-type Disialyloligosaccharide ( <i>Angew. Chem. Int. Ed.</i> 15/2012). <i>Angewandte Chemie - International Edition</i> , 2012, 51, 3494-3494.	13.8	2
70	Development of a Stereoselective C-glycosylation and Glycamino Acid-Based New Carbohydrate Analog.. Yuki Gosei Kagaku Kyokaiishi/ <i>Journal of Synthetic Organic Chemistry</i> , 1998, 56, 557-566.	0.1	1
71	Chemical Synthesis of Homogeneous Glycoproteins. , 2015, , 313-321.		1
72	Stereoselective Synthesis of 5-Thio- $\beta$ -L-Fucopyranosyl Phosphate. <i>Letters in Organic Chemistry</i> , 2008, 5, 576-578.	0.5	0

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73	Innentitelbild: Chemical Synthesis of an Erythropoietin Glycoform Containing a Complex-type Disialyloligosaccharide (Angew. Chem. 15/2012). Angewandte Chemie, 2012, 124, 3552-3552.	2.0	0
74	N,N-Dimethylaminoxy Carbonyl, a Polar Protecting Group for Efficient Peptide Synthesis. Frontiers in Chemistry, 2019, 7, 173.	3.6	0
75	Chemical Synthesis of Homogeneous Glycoproteins. , 2014, , 1-8.		0