Zhongwu Guo

List of Publications by Year
in descending order

105 papers	3,031 citations	147786 31 h-index	197805 49 g-index
123 all docs	123 docs citations	123 times ranked	2625 citing authors

#	Article	IF	Citations
1	Transbilayer Lipid Interactions Mediate Nanoclustering of Lipid-Anchored Proteins. Cell, 2015, 161, 581-594.	28.9	333
2	Recent development in carbohydrate-based cancer vaccines. Current Opinion in Chemical Biology, 2009, 13, 608-617.	6.1	140
3	Synthesis and Immunological Properties of N-Modified GM3 Antigens as Therapeutic Cancer Vaccines. Journal of Medicinal Chemistry, 2005, 48, 875-883.	6.4	109
4	Carbohydrate-Monophosphoryl Lipid A Conjugates Are Fully Synthetic Self-Adjuvanting Cancer Vaccines Eliciting Robust Immune Responses in the Mouse. ACS Chemical Biology, 2012, 7, 235-240.	3.4	98
5	Sortase A-Catalyzed Transpeptidation of Glycosylphosphatidylinositol Derivatives for Chemoenzymatic Synthesis of GPI-Anchored Proteins. Journal of the American Chemical Society, 2010, 132, 1567-1571.	13.7	72
6	Sortase A-catalyzed peptide cyclization for the synthesis of macrocyclic peptides and glycopeptides. Chemical Communications, 2011, 47, 9218.	4.1	71
7	A fully synthetic self-adjuvanting globo H-Based vaccine elicited strong T cell-mediated antitumor immunity. Chemical Science, 2015, 6, 7112-7121.	7.4	69
8	Efficient Metabolic Engineering of GM3 on Tumor Cells by N-Phenylacetyl-d-mannosamine. Biochemistry, 2006, 45, 3733-3739.	2.5	68
9	Synthesis and evaluation of monophosphoryl lipid A derivatives as fully synthetic self-adjuvanting glycoconjugate cancer vaccine carriers. Organic and Biomolecular Chemistry, 2014, 12, 3238-3245.	2.8	66
10	Fully Synthetic Self-Adjuvanting Î±-2,9-Oligosialic Acid Based Conjugate Vaccines against Group C Meningitis. ACS Central Science, 2016, 2, 210-218.	11.3	65
11	Synthesis of a Glycosylphosphatidylinositol Anchor Bearing Unsaturated Lipid Chains. Journal of the American Chemical Society, 2010, 132, 6648-6650.	13.7	62
12	Sortase-Catalyzed Peptideâ^'Glycosylphosphatidylinositol Analogue Ligation. Journal of the American Chemical Society, 2009, 131, 9878-9879.	13.7	58
13	Chemical Synthesis of a Skeleton Structure of Sperm CD52â€"A GPI-Anchored Glycopeptide. Angewandte Chemie - International Edition, 2004, 43, 1569-1573.	13.8	55
14	Efficient glycoengineering of GM3 on melanoma cell and monoclonal antibody-mediated selective killing of the glycoengineered cancer cell. Bioorganic and Medicinal Chemistry, 2007, 15, 7561-7567.	3.0	53
15	Synthetic and Immunological Studies of 5â€²-N-Phenylacetyl sTn to Develop Carbohydrate-Based Cancer Vaccines and to Explore the Impacts of Linkage between Carbohydrate Antigens and Carrier Proteins. Bioconjugate Chemistry, 2008, 19, 2060-2067.	3.6	53
16	First Total Synthesis of a GPI-Anchored Peptide. Journal of Organic Chemistry, 2003, 68, 4020-4029.	3.2	51
17	Convergent Synthesis of a GPI Containing an Acylated Inositol. Journal of the American Chemical Society, 2003, 125, 16334-16339.	13.7	50
18	Synthesis and Immunological Studies of Linear Oligosaccharides of Î²-Glucan As Antigens for Antifungal Vaccine Development. Bioconjugate Chemistry, 2015, 26, 466-476.	3.6	49

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19	A six-membered-ring incorporated Si-rhodamine for imaging of copper(<scp>ii</scp>) in lysosomes. Organic and Biomolecular Chemistry, 2016, 14, 6720-6728.	2.8	45
20	Fabrication and Comprehensive Characterization of Biomimetic Extracellular Matrix Electrospun Scaffold for Vascular Tissue Engineering Applications. Journal of Materials Science, 2019, 54, 10871-10883.	3.7	43
21	Synthesis and immunological study of Î±-2,9-oligosialic acid conjugates as anti-group C meningitis vaccines. Chemical Communications, 2015, 51, 9647-9650.	4.1	41
22	Labeling Cell Surface GPIs and GPIâ€Anchored Proteins through Metabolic Engineering with Artificial Inositol Derivatives. Angewandte Chemie - International Edition, 2015, 54, 9679-9682.	13.8	38
23	Chemical Synthesis of the Repeating Unit of Type V Group B Streptococcus Capsular Polysaccharide. Organic Letters, 2016, 18, 5552-5555.	4.6	36
24	Chemical synthesis and functionalization of clickable glycosylphosphatidylinositol anchors. Chemical Science, 2011, 2, 2342.	7.4	35
25	Sortase-Mediated Transpeptidation for Site-Specific Modification of Peptides, Glycopeptides, and Proteins. Journal of Carbohydrate Chemistry, 2012, 31, 48-66.	1.1	35
26	Synthesis and Immunological Comparison of Differently Linked Lipoarabinomannan Oligosaccharideâ€“Monophosphoryl Lipid A Conjugates as Antituberculosis Vaccines. Journal of Organic Chemistry, 2017, 82, 12085-12096.	3.2	34
27	Recent Advances in Toll Like Receptor-Targeting Glycoconjugate Vaccines. Molecules, 2018, 23, 1583.	3.8	34
28	Progress in the synthesis and biological evaluation of lipid A and its derivatives. Medicinal Research Reviews, 2018, 38, 556-601.	10.5	33
29	A facile synthesis of Cerny epoxides and selectively blocked derivatives of 2-azido-2-deoxy-Î²-d-glucopyranose. Tetrahedron Letters, 2001, 42, 6487-6489.	1.4	32
30	Chemoenzymatic synthesis of glycosylphosphatidylinositol-anchored glycopeptides. Chemical Communications, 2010, 46, 5773.	4.1	32
31	Synthetic and Immunological Studies of Mycobacterial Lipoarabinomannan Oligosaccharides and Their Protein Conjugates. Journal of Organic Chemistry, 2015, 80, 10060-10075.	3.2	32
32	Synthesis of a monophosphoryl lipid A derivative and its conjugation to a modified form of a tumor-associated carbohydrate antigen GM3. Chemical Communications, 2009, , 5536.	4.1	31
33	Group A Streptococcus Cell Wall Oligosaccharide-Streptococcal C5a Peptidase Conjugates as Effective Antibacterial Vaccines. ACS Infectious Diseases, 2020, 6, 281-290.	3.8	31
34	Synthesis and Evaluation of GM2-Monophosphoryl Lipid A Conjugate as a Fully Synthetic Self-Adjuvant Cancer Vaccine. Scientific Reports, 2017, 7, 11403.	3.3	29
35	Synthesis of a Monophosphoryl Derivative of Escherichia coli Lipidâ€…A and Its Efficient Coupling to a Tumorâ€Associated Carbohydrate Antigen. Chemistry - A European Journal, 2010, 16, 1319-1325.	3.3	28
36	Chemical Synthesis of the Repeating Unit of Type Ia Group B Streptococcus Capsular Polysaccharide. Organic Letters, 2015, 17, 1102-1105.	4.6	28

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37	Synthesis of a Tristearoyl Lipomannan via Preactivation-Based Iterative One-Pot Glycosylation. Journal of Organic Chemistry, 2013, 78, 12717-12725.	3.2	27
38	Synthesis of a Miniature Lipoarabinomannan. Organic Letters, 2014, 16, 988-991.	4.6	27
39	6-O-Branched Oligo-Î²-glucan-Based Antifungal Glycoconjugate Vaccines. ACS Infectious Diseases, 2016, 2, 123-131.	3.8	27
40	Efficient Strategy for Î±-Selective Glycosidation of <scp>d</scp>-Glucosamine and Its Application to the Synthesis of a Bacterial Capsular Polysaccharide Repeating Unit Containing Multiple Î±-Linked GlcNAc Residues. Organic Letters, 2020, 22, 1520-1524.	4.6	27
41	Improving in vitro biocompatibility on biomimetic mineralized collagen bone materials modified with hyaluronic acid oligosaccharide. Materials Science and Engineering C, 2019, 104, 110008.	7.3	26
42	Site-specific C-terminal dinitrophenylation to reconstitute the antibody Fc functions for nanobodies. Chemical Science, 2019, 10, 9331-9338.	7.4	25
43	Streptococcus agalactiae CAMP factor binds to GPI-anchored proteins. Medical Microbiology and Immunology, 2007, 196, 1-10.	4.8	23
44	Sortase A-mediated chemoenzymatic synthesis of complex glycosylphosphatidylinositol-anchored protein. Chemical Communications, 2013, 49, 11689.	4.1	23
45	Chemical Synthesis of GPI Glycanâ€“Peptide Conjugates by Traceless Staudinger Ligation. Organic Letters, 2017, 19, 3063-3066.	4.6	23
46	A novel cancer immunotherapy based on the combination of a synthetic carbohydrate-pulsed dendritic cell vaccine and glycoengineered cancer cells. Oncotarget, 2015, 6, 5195-5203.	1.8	23
47	Synthesis and biological evaluation of sperm CD52 GPI anchor and related derivatives as binding receptors of pore-forming CAMP factor. Carbohydrate Research, 2008, 343, 1718-1729.	2.3	21
48	Chemical synthesis of the tumor-associated globo H antigen. RSC Advances, 2015, 5, 23311-23319.	3.6	21
49	Chemical Synthesis of the Repeating Unit of Type II Group B Streptococcus Capsular Polysaccharide. Journal of Organic Chemistry, 2018, 83, 5920-5930.	3.2	21
50	Chemical Synthesis of Glycosylphosphatidylinositol Anchors. Advances in Carbohydrate Chemistry and Biochemistry, 2012, 67, 137-219.	0.9	20
51	Synthesis and Immunological Studies of Oligosaccharides that Consist of the Repeating Unit of Streptococcus pneumoniae Serotype 3 Capsular Polysaccharide. Chemistry - A European Journal, 2018, 24, 8205-8216.	3.3	20
52	A new method for Î±-specific glucosylation and its application to the one-pot synthesis of a branched Î±-glucan. Organic Chemistry Frontiers, 2019, 6, 762-772.	4.5	20
53	Synthesis and immunological studies of group AStreptococcuscell-wall oligosaccharideâ€“streptococcal C5a peptidase conjugates as bivalent vaccines. Organic Chemistry Frontiers, 2019, 6, 3589-3596.	4.5	19
54	Synthesis and immunological studies of Î²-1,2-mannan-peptide conjugates as antifungal vaccines. European Journal of Medicinal Chemistry, 2019, 173, 250-260.	5.5	19

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55	A Convergent Synthesis of 6â€Oâ€Branched Î²â€Glucan Oligosaccharides. European Journal of Organic Chemistry, 2015, 2015, 2942-2951.	2.4	17
56	Synthesis of the Cancer-Associated KH-1 Antigen by Block Assembly of Its Backbone Structure Followed by One-Step Grafting of Three Fucose Residues. Organic Letters, 2017, 19, 6558-6561.	4.6	17
57	Synthesis and evaluation of protein conjugates of GM3 derivatives carrying modified sialic acids as highly immunogenic cancer vaccine candidates. MedChemComm, 2011, 2, 524.	3.4	16
58	One-pot four-enzyme synthesis of thymidinediphosphate-l-rhamnose. Chemical Communications, 2016, 52, 13995-13998.	4.1	16
59	Mechanical enhancement and in vitro biocompatibility of nanofibrous collagen-chitosan scaffolds for tissue engineering. Journal of Biomaterials Science, Polymer Edition, 2017, 28, 2255-2270.	3.5	16
60	Synthetic Studies on the Carbohydrate Moiety of Amipurimycin. Journal of Carbohydrate Chemistry, 2008, 27, 51-69.	1.1	14
61	Tin(IV) Chloride Promoted Reaction of Oxiranes with Hydrogen Peroxide. Synlett, 2013, 24, 502-506.	1.8	14
62	One-step purification and immobilization of extracellularly expressed sortase A by magnetic particles to develop a robust and recyclable biocatalyst. Scientific Reports, 2017, 7, 6561.	3.3	14
63	One-Pot Synthesis of the Repeating Unit of Type VII Group B Streptococcus Polysaccharide and the Dimer. Organic Letters, 2019, 21, 2374-2377.	4.6	14
64	Synthesis of the Oligosaccharides of Burkholderia pseudomallei and B. mallei Capsular Polysaccharide and Preliminary Immunological Studies of Their Protein Conjugates. Journal of Organic Chemistry, 2020, 85, 2369-2384.	3.2	14
65	Semisynthetic Glycoconjugate Vaccines To Elicit T Cell-Mediated Immune Responses and Protection against Streptococcus pneumoniae Serotype 3. ACS Infectious Diseases, 2019, 5, 1423-1432.	3.8	13
66	An extensive review of studies on mycobacterium cell wall polysaccharide-related oligosaccharides â€“ part III: synthetic studies and biological applications of arabinofuranosyl oligosaccharides and their analogs, derivatives and conjugates. Journal of Carbohydrate Chemistry, 2019, 38, 414-469.	1.1	12
67	Synthesis of a dimer of the repeating unit of type Ia group BStreptococcusextracellular capsular polysaccharide and immunological evaluations of related protein conjugates. Organic Chemistry Frontiers, 2019, 6, 2833-2838.	4.5	12
68	A Diversity-Oriented Strategy for Chemoenzymatic Synthesis of Glycosphingolipids and Related Derivatives. Organic Letters, 2020, 22, 8245-8249.	4.6	12
69	Synthetic Studies of Glycosylphosphatidylinositol (GPI) Anchors and GPI-Anchored Peptides, Glycopeptides, and Proteins. Current Organic Synthesis, 2013, 10, 366-383.	1.3	12
70	Chemoenzymatic Synthesis of the Human CD52 and CD24 Antigen Analogues. Organic Letters, 2013, 15, 5906-5908.	4.6	11
71	An extensive review of studies on mycobacterium cell wall polysaccharide-related oligosaccharides â€“ part II: Synthetic studies on complex arabinofuranosyl oligosaccharides carrying other functional motifs and related derivatives and analogs. Journal of Carbohydrate Chemistry, 2019, 38, 335-382.	1.1	11
72	Synthesis of a trisaccharide repeating unit of the O-antigen from Burkholderia anthina and its dimer. Carbohydrate Research, 2016, 427, 13-20.	2.3	10

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73	Mutagenesis and immunological evaluation of group A streptococcal C5a peptidase as an antigen for vaccine development and as a carrier protein for glycoconjugate vaccine design. RSC Advances, 2017, 7, 42056-42063.	3.6	10
74	Comparative immunological studies of tumor-associated Lewis X, Lewis Y, and KH-1 antigens. Carbohydrate Research, 2020, 492, 107999.	2.3	10
75	A Facile Synthesis ofN^{Î³}-Glycosyl Asparagine Conjugates and ShortN-Linked Glycopeptides. Journal of Carbohydrate Chemistry, 2012, 31, 105-113.	1.1	9
76	An extensive review of studies on mycobacterium cell wall polysaccharide-related oligosaccharides â€“ part I: Synthetic studies on arabinofuranosyl oligosaccharides. Journal of Carbohydrate Chemistry, 2019, 38, 269-334.	1.1	9
77	A metabolically engineered spin-labeling approach for studying glycans on cells. Chemical Science, 2020, 11, 12522-12532.	7.4	9
78	Quantifying the Efficiency ofN-Phenyl-D-mannosamine to Metabolically Engineer Sialic Acid on Cancer Cell Surface. Journal of Carbohydrate Chemistry, 2014, 33, 395-407.	1.1	8
79	Synthesis of a trisaccharide repeating unit of the O-antigen from Burkholderia cenocepacia and its dimer. Carbohydrate Research, 2017, 451, 1-11.	2.3	8
80	Carbohydrate O-benzylation through trialkylsilane-mediated reductive etherification. Journal of Carbohydrate Chemistry, 2018, 37, 327-346.	1.1	8
81	Synthesis of Novel, Fluorescently Tagged Analogs of Glycosylphosphatidylinositol (GPI) Anchors. Journal of Carbohydrate Chemistry, 2013, 32, 301-323.	1.1	7
82	Synthesis of Defined and Functionalized Glycans of Lipoteichoic Acid: A Cell Surface Polysaccharide from Clostridium difficile. Organic Letters, 2017, 19, 3123-3126.	4.6	7
83	Synthesis of a disaccharide repeating unit of the O-antigen from Burkholderia ambifaria and its oligomers. Carbohydrate Research, 2017, 442, 41-51.	2.3	7
84	Per-O-Benzylated Ethyl 5-N-Acetyl-Î±-thiosialoside as a Glycosyl Donor for Î±-Silylation. Journal of Carbohydrate Chemistry, 2018, 37, 370-382.	1.1	7
85	Synthesis and evaluation ofN^{Î±},N^{Îµ}-diacetyl-<scp>l</scp>-lysine-inositol conjugates as cancer-selective probes for metabolic engineering of GPIs and GPI-anchored proteins. Organic and Biomolecular Chemistry, 2020, 18, 2938-2948.	2.8	7
86	Analysis and Comparison of Mouse and Human Brain Gangliosides via Two-Stage Matching of MS/MS Spectra. ACS Omega, 2022, 7, 6403-6411.	3.5	7
87	Synthesis of Lewis Y Analogues and Their Protein Conjugates for Structureâ€“Immunogenicity Relationship Studies of Lewis Y Antigen. Journal of Organic Chemistry, 2019, 84, 13232-13241.	3.2	6
88	A Diversity-Oriented Strategy for Chemical Synthesis of Glycosphingolipids: Synthesis of Glycosphingolipid LcGg4 and Its Analogues and Derivatives. Journal of Organic Chemistry, 2021, 86, 1633-1648.	3.2	6
89	Design and Synthesis of a Doubly Functionalized Core Structure of a Glycosylphosphatidylinositol Anchor Containing Photoreactive and Clickable Functional Groups. Journal of Organic Chemistry, 2022, 87, 9419-9425.	3.2	6
90	Pondering the structural factors that affect 1,2-trans-galactosylation: A lesson learnt from 3-O-Î²-galactosylation of galactosamine. Journal of Carbohydrate Chemistry, 2017, 36, 347-362.	1.1	5

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91	Characterization of Glycosphingolipids and Their Diverse Lipid Forms through Two-Stage Matching of LC-MS/MS Spectra. Analytical Chemistry, 2021, 93, 3154-3162.	6.5	5
92	Biochemical studies of a Î²-1,4-rhamnoslytransferase from Streptococcus pneumonia serotype 23F. Organic and Biomolecular Chemistry, 2019, 17, 1071-1075.	2.8	4
93	Enzymatic Synthesis of Glycosphingolipids: A Review. Synthesis, 2021, 53, 2367-2380.	2.3	4
94	Enzymatic glycoengineering-based spin labelling of cell surface sialoglycans to enable their analysis by electron paramagnetic resonance (EPR) spectroscopy. Analyst, The, 2022, 147, 784-788.	3.5	4
95	The structural diversity of natural glycosphingolipids (GSLs). Journal of Carbohydrate Chemistry, 2022, 41, 63-154.	1.1	4
96	Recent advances in the research of bacterial glucuronosyltransferases. Journal of Carbohydrate Chemistry, 2016, 35, 201-223.	1.1	3
97	Synthesis of biotin-labelled core glycans of GPI anchors and their application in the study of GPI interaction with pore-forming bacterial toxins. Chemical Communications, 2017, 53, 6227-6230.	4.1	3
98	Biochemical studies of inositol N-acetylglucosaminyltransferase involved in mycothiol biosynthesis in Corynebacterium diphtheria. Organic and Biomolecular Chemistry, 2017, 15, 3775-3782.	2.8	3
99	Synthesis of a tetrasaccharide repeating unit of the exopolysaccharide from Burkholderia multivorans. Journal of Carbohydrate Chemistry, 2017, 36, 189-204.	1.1	3
100	Structural characterization and analysis of different epimers of neutral glycosphingolipid LcGg4 by ion mobility spectrometry-mass spectrometry. Analyst, The, 2022, 147, 3101-3108.	3.5	3
101	Design and synthesis of 4-azido-phosphatidylinositol as a potential probe for metabolic engineering of glycosylphosphatidylinositol on cells. Journal of Carbohydrate Chemistry, 0, , 1-11.	1.1	3
102	Oligosaccharide Antigen Conjugation to Carrier Proteins to Formulate Glycoconjugate Vaccines. Methods in Molecular Biology, 2021, 2183, 305-312.	0.9	2
103	Direct access to various C3-substituted sialyl glycal derivatives from 3-iodo-sialyl glycals. Organic and Biomolecular Chemistry, 2021, 19, 10169-10173.	2.8	2
104	Characterization and biochemical investigation of the potential inositol monophosphate phosphatase involved in bacterial mycothiol biosynthesis. Journal of Carbohydrate Chemistry, 2018, 37, 507-521.	1.1	1
105	Synthesis of Structurally Defined Nitroxide Spin-Labeled Glycolipids as Useful Probes for Electron Paramagnetic Resonance (EPR) Spectroscopy Studies of Cell Surface Glycans. Synthesis, 2022, 54, 2856-2864.	2.3	1