

Xiao-Dong Gao

List of Publications by Year in descending order

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94
papers

1,536
citations

331259

21
h-index

377514

34
g-index

100
all docs

100
docs citations

100
times ranked

1882
citing authors

#	ARTICLE	IF	CITATIONS
1	Alg14 Recruits Alg13 to the Cytoplasmic Face of the Endoplasmic Reticulum to Form a Novel Bipartite UDP-N-acetylglucosamine Transferase Required for the Second Step of N-Linked Glycosylation. <i>Journal of Biological Chemistry</i> , 2005, 280, 36254-36262.	1.6	102
2	Chitosan-Functionalized Graphene Oxide as a Potential Immunoadjuvant. <i>Nanomaterials</i> , 2017, 7, 59.	1.9	73
3	Physical interactions between the Alg1, Alg2, and Alg11 mannosyltransferases of the endoplasmic reticulum. <i>Glycobiology</i> , 2004, 14, 559-570.	1.3	70
4	Particulate Alum via Pickering Emulsion for an Enhanced COVID-19 Vaccine Adjuvant. <i>Advanced Materials</i> , 2020, 32, e2004210.	11.1	65
5	Graphene oxide-chitosan nanocomposites for intracellular delivery of immunostimulatory CpG oligodeoxynucleotides. <i>Materials Science and Engineering C</i> , 2017, 73, 144-151.	3.8	63
6	Nanodelivery systems for enhancing the immunostimulatory effect of CpG oligodeoxynucleotides. <i>Materials Science and Engineering C</i> , 2017, 70, 935-946.	3.8	60
7	Folate-conjugated boron nitride nanospheres for targeted delivery of anticancer drug. <i>International Journal of Nanomedicine</i> , 2016, Volume 11, 4573-4582.	3.3	52
8	<i>N</i> -Glycan-dependent protein folding and endoplasmic reticulum retention regulate GPI-anchor processing. <i>Journal of Cell Biology</i> , 2018, 217, 585-599.	2.3	51
9	Bioconversion of <i>D</i> -glucose to <i>D</i> -psicose with immobilized <i>D</i> -xylose isomerase and <i>D</i> -psicose 3-epimerase on <i>Saccharomyces cerevisiae</i> spores. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2015, 42, 1117-1128.	1.4	49
10	Global mapping of glycosylation pathways in human-derived cells. <i>Developmental Cell</i> , 2021, 56, 1195-1209.e7.	3.1	46
11	Alg14 organizes the formation of a multiglycosyltransferase complex involved in initiation of lipid-linked oligosaccharide biosynthesis. <i>Glycobiology</i> , 2012, 22, 504-516.	1.3	44
12	pH-responsive charge-reversal polymer-functionalized boron nitride nanospheres for intracellular doxorubicin delivery. <i>International Journal of Nanomedicine</i> , 2018, Volume 13, 641-652.	3.3	43
13	Interaction between the C Termini of Alg13 and Alg14 Mediates Formation of the Active UDP-N-acetylglucosamine Transferase Complex. <i>Journal of Biological Chemistry</i> , 2008, 283, 32534-32541.	1.6	42
14	Recent Progress in Chemo-Enzymatic Methods for the Synthesis of N-Glycans. <i>Frontiers in Chemistry</i> , 2020, 8, 513.	1.8	39
15	Polyethyleneimine-functionalized boron nitride nanospheres as efficient carriers for enhancing the immunostimulatory effect of CpG oligodeoxynucleotides. <i>International Journal of Nanomedicine</i> , 2015, 10, 5343.	3.3	30
16	Genetic disruption of multiple α 1,2-mannosidases generates mammalian cells producing recombinant proteins with high-mannose-type N-glycans. <i>Journal of Biological Chemistry</i> , 2018, 293, 5572-5584.	1.6	30
17	Reconstitution of the lipid-linked oligosaccharide pathway for assembly of high-mannose N-glycans. <i>Nature Communications</i> , 2019, 10, 1813.	5.8	29
18	Folate-conjugated, mesoporous silica functionalized boron nitride nanospheres for targeted delivery of doxorubicin. <i>Materials Science and Engineering C</i> , 2019, 96, 552-560.	3.8	29

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19	Bovine milk lactoferrin induces synthesis of the angiogenic factors VEGF and FGF2 in osteoblasts via the p44/p42 MAP kinase pathway. <i>BioMetals</i> , 2011, 24, 847-856.	1.8	25
20	Recent advances in the synthesis of rare sugars using DHAP-dependent aldolases. <i>Carbohydrate Research</i> , 2017, 452, 108-115.	1.1	24
21	One-Pot Multienzyme Synthesis of Rare Ketoses from Glycerol. <i>Journal of Agricultural and Food Chemistry</i> , 2020, 68, 1347-1353.	2.4	24
22	Exploiting the Lymph-Node-Amplifying Effect for Potent Systemic and Gastrointestinal Immune Responses via Polymer/Lipid Nanoparticles. <i>ACS Nano</i> , 2019, 13, 13809-13817.	7.3	23
23	Applied Usage of Yeast Spores as Chitosan Beads. <i>Applied and Environmental Microbiology</i> , 2014, 80, 5098-5105.	1.4	20
24	A knockout cell library of GPI biosynthetic genes for functional studies of GPI-anchored proteins. <i>Communications Biology</i> , 2021, 4, 777.	2.0	20
25	Use of Yeast Spores for Microencapsulation of Enzymes. <i>Applied and Environmental Microbiology</i> , 2014, 80, 4502-4510.	1.4	19
26	Genome-Wide Screening of Genes Required for Glycosylphosphatidylinositol Biosynthesis. <i>PLoS ONE</i> , 2015, 10, e0138553.	1.1	19
27	Alg13p, the Catalytic Subunit of the Endoplasmic Reticulum UDP-GlcNAc Glycosyltransferase, Is a Target for Proteasomal Degradation. <i>Molecular Biology of the Cell</i> , 2008, 19, 2169-2178.	0.9	18
28	Glycoengineering of HEK293 cells to produce high-mannose-type N-glycan structures. <i>Journal of Biochemistry</i> , 2019, 166, 245-258.	0.9	18
29	Calnexin mediates the maturation of GPI-anchors through ER retention. <i>Journal of Biological Chemistry</i> , 2020, 295, 16393-16410.	1.6	18
30	Engineering mannosylated pickering emulsions for the targeted delivery of multicomponent vaccines. <i>Biomaterials</i> , 2022, 280, 121313.	5.7	18
31	Quantitative study of yeast Alg1 beta-1, 4 mannosyltransferase activity, a key enzyme involved in protein N-glycosylation. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2017, 1861, 2934-2941.	1.1	17
32	Alternative routes for synthesis of N-linked glycans by Alg2 mannosyltransferase. <i>FASEB Journal</i> , 2018, 32, 2492-2506.	0.2	15
33	Effects of Rho1, a small GTPase on the production of recombinant glycoproteins in <i>Saccharomyces cerevisiae</i> . <i>Microbial Cell Factories</i> , 2016, 15, 179.	1.9	14
34	MON2 Guides Wntless Transport to the Golgi through Recycling Endosomes. <i>Cell Structure and Function</i> , 2020, 45, 77-92.	0.5	13
35	Human SND2 mediates ER targeting of GPI-anchored proteins with low hydrophobic GPI attachment signals. <i>FEBS Letters</i> , 2021, 595, 1542-1558.	1.3	13
36	Glucan synthesis-associated genes are required for proper spore wall formation in <i>Saccharomyces cerevisiae</i> . <i>Yeast</i> , 2017, 34, 431-446.	0.8	12

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37	Suppression of Vps13 adaptor protein mutants reveals a central role for PI4P in regulating prospore membrane extension. <i>PLoS Genetics</i> , 2021, 17, e1009727.	1.5	12
38	Protein Phosphatase Type 1-Interacting Protein Ysw1 Is Involved in Proper Septin Organization and Prospore Membrane Formation during Sporulation. <i>Eukaryotic Cell</i> , 2009, 8, 1027-1037.	3.4	11
39	Molecular switching system using glycosylphosphatidylinositol to select cells highly expressing recombinant proteins. <i>Scientific Reports</i> , 2017, 7, 4033.	1.6	11
40	Establishment of DHFR-deficient HEK293 cells for high yield of therapeutic glycoproteins. <i>Journal of Bioscience and Bioengineering</i> , 2019, 128, 487-494.	1.1	11
41	Synthesis of Rare Pentoses Using Microbial and Enzymatic Reactions. <i>Current Organic Chemistry</i> , 2016, 20, 1456-1464.	0.9	11
42	A Strategy for Neuraminidase Inhibitors Using Mechanism-Based Labeling Information. <i>Chemistry - an Asian Journal</i> , 2011, 6, 1048-1056.	1.7	10
43	Yeast cell-based analysis of human lactate dehydrogenase isoforms. <i>Journal of Biochemistry</i> , 2015, 158, mvv061.	0.9	10
44	Enzymatic synthesis of rare sugars with L-rhamnulose-1-phosphate aldolase from <i>Thermotoga maritima</i> MSB8. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2015, 25, 3980-3983.	1.0	10
45	The Dysferlin Domain-Only Protein, Spo73, Is Required for Prospore Membrane Extension in <i>Saccharomyces cerevisiae</i> . <i>MSphere</i> , 2016, 1, .	1.3	10
46	Yeast cells as an assay system for in vivo O-GlcNAc modification. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2017, 1861, 1159-1167.	1.1	10
47	Structural and functional analysis of Alg1 beta-1,4 mannosyltransferase reveals the physiological importance of its membrane topology. <i>Glycobiology</i> , 2018, 28, 741-753.	1.3	10
48	Dynamic localization of a yeast development-specific PP1 complex during prospore membrane formation is dependent on multiple localization signals and complex formation. <i>Molecular Biology of the Cell</i> , 2017, 28, 3881-3895.	0.9	9
49	Cascade synthesis of rare ketoses by whole cells based on L-rhamnulose-1-phosphate aldolase. <i>Enzyme and Microbial Technology</i> , 2020, 133, 109456.	1.6	9
50	Characterization of alditol oxidase from <i>Streptomyces coelicolor</i> and its application in the production of rare sugars. <i>Bioorganic and Medicinal Chemistry</i> , 2020, 28, 115464.	1.4	9
51	In vitro reconstitution of the yeast spore wall dityrosine layer discloses the mechanism of its assembly. <i>Journal of Biological Chemistry</i> , 2017, 292, 15880-15891.	1.6	8
52	Origin identification of Chinese Maca using electronic nose coupled with GC-MS. <i>Scientific Reports</i> , 2019, 9, 12216.	1.6	8
53	Recent Advances Regarding the Physiological Functions and Biosynthesis of D-Allulose. <i>Frontiers in Microbiology</i> , 2022, 13, 881037.	1.5	8
54	Cell engineering for the production of hybrid-type N-glycans in HEK293 cells. <i>Journal of Biochemistry</i> , 2021, 170, 139-151.	0.9	7

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55	Characterization of glycerol phosphate oxidase from <i>Streptococcus pneumoniae</i> and its application for ketose synthesis. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2015, 25, 504-507.	1.0	6
56	Construction of green fluorescence protein mutant to monitor STT3B-dependent N-glycosylation. <i>FEBS Journal</i> , 2018, 285, 915-928.	2.2	6
57	Maca extracts regulate glucose and lipid metabolism in insulin-resistant HepG2 cells via the PI3K/AKT signalling pathway. <i>Food Science and Nutrition</i> , 2021, 9, 2894-2907.	1.5	6
58	Production of encapsulated creatinase using yeast spores. <i>Bioengineered</i> , 2017, 8, 411-419.	1.4	5
59	<i>PER1</i> , <i>GUP1</i> and <i>CWH43</i> of methylotrophic yeast <i>Ogataea minuta</i> are involved in cell wall integrity. <i>Yeast</i> , 2018, 35, 225-236.	0.8	5
60	Approaches towards the core pentasaccharide in N-linked glycans. <i>Chinese Chemical Letters</i> , 2018, 29, 35-39.	4.8	5
61	Efficient chiral synthesis by <i>Saccharomyces cerevisiae</i> spore encapsulation of <i>Candida parapsilosis</i> Glu228Ser(S)-carbonyl reductase II and <i>Bacillus</i> sp. YX-1 glucose dehydrogenase in organic solvents. <i>Microbial Cell Factories</i> , 2019, 18, 87.	1.9	5
62	Production of <i>l</i> -Ribulose Using an Encapsulated <i>l</i> -Arabinose Isomerase in Yeast Spores. <i>Journal of Agricultural and Food Chemistry</i> , 2019, 67, 4868-4875.	2.4	5
63	Functional Analysis of the GPI Transamidase Complex by Screening for Amino Acid Mutations in Each Subunit. <i>Molecules</i> , 2021, 26, 5462.	1.7	5
64	Physical Interactions among Human Glycosyltransferases Involved in Dolichol-Linked Oligosaccharide Biosynthesis. <i>Trends in Glycoscience and Glycotechnology</i> , 2012, 24, 65-77.	0.0	5
65	Identification of a Novel Alditol Oxidase from <i>Thermopolyspora flexuosa</i> with Potential Application in d-Glyceric Acid Production. <i>Molecular Biotechnology</i> , 2022, 64, 804-813.	1.3	5
66	Spore-Encapsulating Glycosyltransferase Catalysis Tandem Reactions: Facile Chemoenzymatic Synthesis of Complex Human Glycans. <i>ACS Catalysis</i> , 2022, 12, 3181-3188.	5.5	5
67	Alg mannosyltransferases: From functional and structural analyses to the lipid-linked oligosaccharide pathway reconstitution. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2022, 1866, 130112.	1.1	5
68	Osw2 is required for proper assembly of glucan and/or mannan layers of the yeast spore wall. <i>Journal of Biochemistry</i> , 2018, 163, 293-304.	0.9	4
69	Yeast Dop1 is required for glycosyltransferase retrieval from the trans-Golgi network. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2019, 1863, 1147-1157.	1.1	4
70	Studies on the Properties of the Sporulation Specific Protein Dit1 and Its Product Formyl Tyrosine. <i>Journal of Fungi (Basel, Switzerland)</i> , 2020, 6, 77.	1.5	4
71	Topological and enzymatic analysis of human Alg2 mannosyltransferase reveals its role in lipid-linked oligosaccharide biosynthetic pathway. <i>Communications Biology</i> , 2022, 5, 117.	2.0	4
72	Characteristics of SNARE proteins are defined by distinctive properties of SNARE motifs. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2020, 1864, 129658.	1.1	3

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73	Identification of novel <math>O\</math>-GlcNAc transferase substrates using yeast cells expressing OGT. Journal of General and Applied Microbiology, 2021, 67, 33-41.	0.4	3
74	Regulation of alcohol oxidase gene expression in methylotrophic yeast <i>Ogataea minuta</i> . Journal of Bioscience and Bioengineering, 2021, 132, 437-444.	1.1	3
75	Consecutive hydrolysis of creatinine using creatininase and creatinase encapsulated in <i>Saccharomyces cerevisiae</i> spores. Biotechnology Letters, 2017, 39, 261-267.	1.1	2
76	Characterization of a yeast sporulation-specific P450 family protein, Dit2, using an in vitro assay to crosslink formyl tyrosine. Journal of Biochemistry, 2018, 163, 123-131.	0.9	2
77	Structural modeling and mutagenesis of endo- β -N-acetylglucosaminidase from <i>Ogataea minuta</i> identifies the importance of Trp295 for hydrolytic activity. Journal of Bioscience and Bioengineering, 2018, 125, 168-174.	1.1	2
78	PiggyBac-based screening identified BEM4 as a suppressor to rescue growth defects in och1-disrupted yeast cells. Bioscience, Biotechnology and Biochemistry, 2018, 82, 1497-1507.	0.6	2
79	Construction of functional chimeras of syntaxin-1A and its yeast orthologue, and their application to the yeast cell-based assay for botulinum neurotoxin serotype C. Biochimica Et Biophysica Acta - General Subjects, 2019, 1863, 129396.	1.1	2
80	Chemo-enzymatic synthesis of the ALG1-CDG biomarker and evaluation of its immunogenicity. Bioorganic and Medicinal Chemistry Letters, 2020, 30, 127614.	1.0	2
81	Encapsulation of Mannose-6-phosphate Isomerase in Yeast Spores and Its Application in <math>\alpha\</math>-Ribose Production. Journal of Agricultural and Food Chemistry, 2020, 68, 6892-6899.	2.4	2
82	Unique Properties of the <i>S. cerevisiae</i> Spore Wall and Its Applications. Trends in Glycoscience and Glycotechnology, 2020, 32, E189-E193.	0.0	2
83	Application of yeast spores as β -glucan particles. Particuology, 2022, 71, 34-40.	2.0	2
84	Identification and characterization of transcriptional control region of the human beta 1,4-mannosyltransferase gene. Cytotechnology, 2017, 69, 417-434.	0.7	1
85	Functional characteristics of Svl3 and Pam1 that are required for proper cell wall formation in yeast cells. Yeast, 2020, 37, 359-371.	0.8	1
86	Optimising the oil phases of aluminium hydrogel-stabilised emulsions for stable, safe and efficient vaccine adjuvant. Frontiers of Chemical Science and Engineering, 2022, , 1-12.	2.3	1
87	COVID-19 Vaccines: Particulate Alum via Pickering Emulsion for an Enhanced COVID-19 Vaccine Adjuvant (Adv. Mater. 40/2020). Advanced Materials, 2020, 32, 2070303.	11.1	0
88	Selecting cells expressing high levels of recombinant proteins using the GPI-anchored protein with selenocysteine system. Journal of Bioscience and Bioengineering, 2021, 131, 225-233.	1.1	0
89	Sulfation of a FLAG tag mediated by SLC35B2 and TPST2 affects antibody recognition. PLoS ONE, 2021, 16, e0250805.	1.1	0
90	Heterodimeric Alg13/Alg14 UDP-GlcNAc Transferase (ALG13,14). , 2014, , 1231-1238.		0

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91	Glycan-Mediated Protein Transport from the Endoplasmic Reticulum. , 2015, , 21-34.		0
92	Dolichyl-Phosphate (UDP-N-Acetylglucosamine) N-Acetylglucosaminephospho transferase 1 (GlcNAc-1-P) Tj ETQq0 0 0 rgBT /Qverlock 10		
93	Unique Properties of the <i>S. cerevisiae</i> Spore Wall and Its Applications. Trends in Glycoscience and Glycotechnology, 2020, 32, J165-J169.	0.0	0
94	Establishment of a Novel Cell Surface Display Platform Based on Natural "Chitosan Beads" of Yeast Spores. Journal of Agricultural and Food Chemistry, 2022, 70, 7479-7489.	2.4	0