Lan Guan

List of Publications by Year
in descending order

74	3,057	201674 27	168389 53
papers	citations	h-index	g-index

102	102	102	1936
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Maltoseâ€"neopentyl glycol (MNG) amphiphiles for solubilization, stabilization and crystallization of membrane proteins. Nature Methods, 2010, 7, 1003-1008.	19.0	397
2	LESSONS FROM LACTOSE PERMEASE. Annual Review of Biophysics and Biomolecular Structure, 2006, 35, 67-91.	18.3	305
3	Structural determination of wild-type lactose permease. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 15294-15298.	7.1	206
4	Structural evidence for induced fit and a mechanism for sugar/H+ symport in LacY. EMBO Journal, 2006, 25, 1177-1183.	7.8	165
5	Structure-based mechanism for Na+/melibiose symport by MelB. Nature Communications, 2014, 5, 3009.	12.8	124
6	A New Class of Amphiphiles Bearing Rigid Hydrophobic Groups for Solubilization and Stabilization of Membrane Proteins. Chemistry - A European Journal, 2012, 18, 9485-9490.	3.3	120
7	An approach to membrane protein structure without crystals. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 14037-14040.	7.1	93
8	Manipulating phospholipids for crystallization of a membrane transport protein. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 1723-1726.	7.1	86
9	Opening and closing of the periplasmic gate in lactose permease. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 3774-3778.	7.1	84
10	Crystal structure of lactose permease in complex with an affinity inactivator yields unique insight into sugar recognition. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 9361-9366.	7.1	84
11	Aromatic Stacking in the Sugar Binding Site of the Lactose Permeaseâ€. Biochemistry, 2003, 42, 1377-1382.	2.5	70
12	Mechanism of Melibiose/Cation Symport of the Melibiose Permease of Salmonella typhimurium. Journal of Biological Chemistry, 2011, 286, 6367-6374.	3.4	66
13	Exploiting luminescence spectroscopy to elucidate the interaction between sugar and a tryptophan residue in the lactose permease of Escherichia coli. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 12706-12711.	7.1	60
14	Binding affinity of lactose permease is not altered by the H+ electrochemical gradient. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 12148-12152.	7.1	59
15	Highly Branched Pentasaccharide-Bearing Amphiphiles for Membrane Protein Studies. Journal of the American Chemical Society, 2016, 138, 3789-3796.	13.7	56
16	Surface-exposed positions in the transmembrane helices of the lactose permease ofEscherichia colidetermined by intermolecular thiol cross-linking. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 3475-3480.	7.1	49
17	Site-directed alkylation of cysteine to test solvent accessibility of membrane proteins. Nature Protocols, 2007, 2, 2012-2017.	12.0	49
18	Novel Tripod Amphiphiles for Membrane Protein Analysis. Chemistry - A European Journal, 2013, 19, 15645-15651.	3.3	49

#	Article	IF	Citations
19	Maltose neopentyl glycol-3 (MNG-3) analogues for membrane protein study. Analyst, The, 2015, 140, 3157-3163.	3.5	47
20	Conformationally Preorganized Diastereomeric Norbornane-Based Maltosides for Membrane Protein Study: Implications of Detergent Kink for Micellar Properties. Journal of the American Chemical Society, 2017, 139, 3072-3081.	13.7	46
21	A class of rigid linker-bearing glucosides for membrane protein structural study. Chemical Science, 2016, 7, 1933-1939.	7.4	39
22	It takes two to tango: The dance of the permease. Journal of General Physiology, 2019, 151, 878-886.	1.9	39
23	Intermolecular thiol cross-linking via loops in the lactose permease of Escherichia coli. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 10187-10192.	7.1	34
24	A 3D structure model of the melibiose permease of Escherichia coli represents a distinctive fold for Na+ symporters. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 15291-15296.	7.1	34
25	Thermodynamic mechanism for inhibition of lactose permease by the phosphotransferase protein IIA ^{Glc}. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 2407-2412.	7.1	32
26	Changing the lactose permease of Escherichia coli into a galactose-specific symporter. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 6613-6618.	7.1	31
27	Structural and functional characterization of proteinâ€“lipid interactions of the Salmonella typhimurium melibiose transporter MelB. BMC Biology, 2018, 16, 85.	3.8	30
28	Effect of Detergents on Galactoside Binding by Melibiose Permeases. Biochemistry, 2015, 54, 5849-5855.	2.5	29
29	Asymmetric maltose neopentyl glycol amphiphiles for a membrane protein study: effect of detergent asymmetricity on protein stability. Chemical Science, 2019, 10, 1107-1116.	7.4	28
30	Thermodynamic cooperativity of cosubstrate binding and cation selectivity of <i>Salmonella typhimurium</i> MelB. Journal of General Physiology, 2017, 149, 1029-1039.	1.9	27
31	Suppression of Conformation-Compromised Mutants of Salmonella enterica Serovar Typhimurium MelB. Journal of Bacteriology, 2014, 196, 3134-3139.	2.2	23
32	Resorcinareneâ€Based Facial Glycosides: Implication of Detergent Flexibility on Membraneâ€Protein Stability. Chemistry - A European Journal, 2017, 23, 6724-6729.	3.3	23
33	Insights into the Inhibitory Mechanisms of the Regulatory Protein IIAGlc on Melibiose Permease Activity. Journal of Biological Chemistry, 2014, 289, 33012-33019.	3.4	22
34	Dendronic trimaltoside amphiphiles (DTMs) for membrane protein study. Chemical Science, 2017, 8, 8315-8324.	7.4	21
35	X-ray crystallography reveals molecular recognition mechanism for sugar binding in a melibiose transporter MelB. Communications Biology, 2021, 4, 931.	4.4	19
36	Role of Gly117 in the Cation/Melibiose Symport of MelB of <i>Salmonella typhimurium</i>. Biochemistry, 2012, 51, 2950-2957.	2.5	18

#	Article	IF	Citations
37	Helix packing in the lactose permease of Escherichia coli : localization of helix VI 1 1Edited by G. von Heijne. Journal of Molecular Biology, 2001, 312, 69-77.	4.2	17
38	Novel Xyleneâ€Linked Maltoside Amphiphiles (XMAs) for Membrane Protein Stabilisation. Chemistry - A European Journal, 2015, 21, 10008-10013.	3.3	17
39	Isomeric Detergent Comparison for Membrane Protein Stability: Importance of Interâ€Alkylâ€Chain Distance and Alkyl Chain Length. ChemBioChem, 2016, 17, 2334-2339.	2.6	17
40	Mesityleneâ€Cored Glucoside Amphiphiles (MGAs) for Membrane Protein Studies: Importance of Alkyl Chain Density in Detergent Efficacy. Chemistry - A European Journal, 2016, 22, 18833-18839.	3.3	17
41	Structure, function, and ion-binding properties of a K ⁺ channel stabilized in the 2,4-ionâ€“bound configuration. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 16829-16834.	7.1	17
42	An Early Event in the Transport Mechanism of LacY Protein. Journal of Biological Chemistry, 2011, 286, 30415-30422.	3.4	16
43	Reduced Na ⁺ Affinity Increases Turnover of Salmonella enterica Serovar Typhimurium MelB. Journal of Bacteriology, 2012, 194, 5538-5544.	2.2	16
44	Butane-1,2,3,4-tetraol-based amphiphilic stereoisomers for membrane protein study: importance of chirality in the linker region. Chemical Science, 2017, 8, 1169-1177.	7.4	16
45	1,3,5-Triazine-Cored Maltoside Amphiphiles for Membrane Protein Extraction and Stabilization. Journal of the American Chemical Society, 2019, 141, 19677-19687.	13.7	15
46	Conformationally flexible core-bearing detergents with a hydrophobic or hydrophilic pendant: Effect of pendant polarity on detergent conformation and membrane protein stability. Acta Biomaterialia, 2021, 128, 393-407.	8.3	15
47	Pendant-bearing glucose-neopentyl glycol (P-GNG) amphiphiles for membrane protein manipulation: Importance of detergent pendant chain for protein stabilization. Acta Biomaterialia, 2020, 112, 250-261.	8.3	14
48	Probing the Mechanism of a Membrane Transport Protein with Affinity Inactivators. Journal of Biological Chemistry, 2003, 278, 10641-10648.	3.4	13
49	Properties of a LacY Efflux Mutant. Biochemistry, 2009, 48, 9250-9255.	2.5	13
50	Conformationally Restricted Monosaccharide-Cored Glycoside Amphiphiles: The Effect of Detergent Headgroup Variation on Membrane Protein Stability. ACS Chemical Biology, 2019, 14, 1717-1726.	3.4	13
51	Foldable Detergents for Membrane Protein Study: Importance of Detergent Core Flexibility in Protein Stabilization. Chemistry - A European Journal, 2022, 28, .	3.3	13
52	Selfâ€Assembly Behavior and Application of Terphenylâ€Cored Trimaltosides for Membraneâ€Protein Studies: Impact of Detergent Hydrophobic Group Geometry on Protein Stability. Chemistry - A European Journal, 2019, 25, 11545-11554.	3.3	12
53	New Malonate-Derived Tetraglucoside Detergents for Membrane Protein Stability. ACS Chemical Biology, 2020, 15, 1697-1707.	3.4	12
54	New penta-saccharide-bearing tripod amphiphiles for membrane protein structure studies. Analyst, The, 2017, 142, 3889-3898.	3.5	11

#	Article	IF	Citations
55	Tandem malonate-based glucosides (TMGs) for membrane protein structural studies. Scientific Reports, 2017, 7, 3963.	3.3	11
56	Trehalose-cored amphiphiles for membrane protein stabilization: importance of the detergent micelle size in GPCR stability. Organic and Biomolecular Chemistry, 2019, 17, 3249-3257.	2.8	11
57	Selfâ€Assembly Behaviors of a Pentaâ€Phenylene Maltoside and Its Application for Membrane Protein Study. Chemistry - an Asian Journal, 2019, 14, 1926-1931.	3.3	11
58	A transcription blocker isolated from a designed repeat protein combinatorial library by in vivo functional screen. Scientific Reports, 2015, 5, 8070.	3.3	10
59	Diastereomeric Cyclopentane-Based Maltosides (CPMs) as Tools for Membrane Protein Study. Journal of the American Chemical Society, 2020, 142, 21382-21392.	13.7	10
60	Complete cysteine-scanning mutagenesis of the Salmonella typhimurium melibiose permease. Journal of Biological Chemistry, 2021, 297, 101090.	3.4	10
61	Vitamin E-based glycoside amphiphiles for membrane protein structural studies. Organic and Biomolecular Chemistry, 2018, 16, 2489-2498.	2.8	8
62	Cooperative binding ensures the obligatory melibiose/Na+ cotransport in MelB. Journal of General Physiology, 2021, 153, .	1.9	8
63	Molecular Basis for the Cation Selectivity of Salmonella typhimurium Melibiose Permease. Journal of Molecular Biology, 2022, 434, 167598.	4.2	7
64	Rationally Engineered Tandem Facial Amphiphiles for Improved Membrane Protein Stabilization Efficacy. ChemBioChem, 2018, 19, 2225-2232.	2.6	6
65	Maltose-bis(hydroxymethyl)phenol (MBPs) and Maltose-tris(hydroxymethyl)phenol (MTPs) Amphiphiles for Membrane Protein Stability. ACS Chemical Biology, 2021, 16, 1779-1790.	3.4	6
66	Thermodynamics of Nanobody Binding to Lactose Permease. Biochemistry, 2016, 55, 5917-5926.	2.5	5
67	Steroidâ€Based Amphiphiles for Membrane Protein Study: The Importance of Alkyl Spacers for Protein Stability. ChemBioChem, 2018, 19, 1433-1443.	2.6	5
68	A comparative study of branched and linear mannitol-based amphiphiles on membrane protein stability. Analyst, The, 2018, 143, 5702-5710.	3.5	5
69	Development of 1,3-acetonedicarboxylate-derived glucoside amphiphiles (ACAs) for membrane protein study. Chemical Science, 2022, 13, 5750-5759.	7.4	5
70	Energy Metabolism | Glucose/Sugar Transport in Bacteria. , 2021, , 192-202.		4
71	Glycoâ€Steroidal Amphiphiles (GSAs) for Membrane Protein Structural Study. ChemBioChem, 2022, 23, .	2.6	4
72	Na+/Melibiose Membrane Transport Protein, MelB. , 2018, , 1-8.		3

#	Article	IF	Citations
73	Inside Cover: A New Class of Amphiphiles Bearing Rigid Hydrophobic Groups for Solubilization and Stabilization of Membrane Proteins (Chem. Eur. J. 31/2012). Chemistry - A European Journal, 2012, 18, 9434-9434.	3.3	0
74	Inhibition of cell growth by an elevated turnover number of melibiose/Na+ symport catalyzed by melibiose permease of Salmonella typhimurium. FASEB Journal, 2012, 26, lb211.	0.5	0