Lan Guan

List of Publications by Year
in descending order

74 papers	3,057 citations	201674 27 h-index	168389 53 g-index
102 all docs	102 docs citations	102 times ranked	1936 citing authors

#	Article	IF	Citations
1	Glycoâ€Steroidal Amphiphiles (GSAs) for Membrane Protein Structural Study. ChemBioChem, 2022, 23, .	2.6	4
2	Foldable Detergents for Membrane Protein Study: Importance of Detergent Core Flexibility in Protein Stabilization. Chemistry - A European Journal, 2022, 28, .	3.3	13
3	Development of 1,3-acetonedicarboxylate-derived glucoside amphiphiles (ACAs) for membrane protein study. Chemical Science, 2022, 13, 5750-5759.	7.4	5
4	Molecular Basis for the Cation Selectivity of Salmonella typhimurium Melibiose Permease. Journal of Molecular Biology, 2022, 434, 167598.	4.2	7
5	Energy Metabolism ∣ Glucose/Sugar Transport in Bacteria. , 2021, , 192-202.		4
6	Cooperative binding ensures the obligatory melibiose/Na+ cotransport in MelB. Journal of General Physiology, 2021, 153, .	1.9	8
7	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
8	X-ray crystallography reveals molecular recognition mechanism for sugar binding in a melibiose transporter MelB. Communications Biology, 2021, 4, 931.	4.4	19
9	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
10	Complete cysteine-scanning mutagenesis of the Salmonella typhimurium melibiose permease. Journal of Biological Chemistry, 2021, 297, 101090.	3.4	10
11	Diastereomeric Cyclopentane-Based Maltosides (CPMs) as Tools for Membrane Protein Study. Journal of the American Chemical Society, 2020, 142, 21382-21392.	13.7	10
12	New Malonate-Derived Tetraglucoside Detergents for Membrane Protein Stability. ACS Chemical Biology, 2020, 15, 1697-1707.	3.4	12
13	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
14	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
15	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
16	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
17	It takes two to tango: The dance of the permease. Journal of General Physiology, 2019, 151, 878-886.	1.9	39
18	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

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19	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
20	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
21	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
22	Steroidâ€Based Amphiphiles for Membrane Protein Study: The Importance of Alkyl Spacers for Protein Stability. ChemBioChem, 2018, 19, 1433-1443.	2.6	5
23	Vitamin E-based glycoside amphiphiles for membrane protein structural studies. Organic and Biomolecular Chemistry, 2018, 16, 2489-2498.	2.8	8
24	A comparative study of branched and linear mannitol-based amphiphiles on membrane protein stability. Analyst, The, 2018, 143, 5702-5710.	3.5	5
25	Structural and functional characterization of proteinâ€"lipid interactions of the Salmonella typhimurium melibiose transporter MelB. BMC Biology, 2018, 16, 85.	3.8	30
26	Rationally Engineered Tandem Facial Amphiphiles for Improved Membrane Protein Stabilization Efficacy. ChemBioChem, 2018, 19, 2225-2232.	2.6	6
27	Na+/Melibiose Membrane Transport Protein, MelB. , 2018, , 1-8.		3
28	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
29	Resorcinareneâ€Based Facial Glycosides: Implication of Detergent Flexibility on Membraneâ€Protein Stability. Chemistry - A European Journal, 2017, 23, 6724-6729.	3.3	23
30	Dendronic trimaltoside amphiphiles (DTMs) for membrane protein study. Chemical Science, 2017, 8, 8315-8324.	7.4	21
31	New penta-saccharide-bearing tripod amphiphiles for membrane protein structure studies. Analyst, The, 2017, 142, 3889-3898.	3.5	11
32	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
33	Tandem malonate-based glucosides (TMGs) for membrane protein structural studies. Scientific Reports, 2017, 7, 3963.	3.3	11
34	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
35	Thermodynamics of Nanobody Binding to Lactose Permease. Biochemistry, 2016, 55, 5917-5926.	2.5	5
36	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

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37	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
38	A class of rigid linker-bearing glucosides for membrane protein structural study. Chemical Science, 2016, 7, 1933-1939.	7.4	39
39	Highly Branched Pentasaccharide-Bearing Amphiphiles for Membrane Protein Studies. Journal of the American Chemical Society, 2016, 138, 3789-3796.	13.7	56
40	Effect of Detergents on Galactoside Binding by Melibiose Permeases. Biochemistry, 2015, 54, 5849-5855.	2.5	29
41	Novel Xyleneâ€Linked Maltoside Amphiphiles (XMAs) for Membrane Protein Stabilisation. Chemistry - A European Journal, 2015, 21, 10008-10013.	3.3	17
42	A transcription blocker isolated from a designed repeat protein combinatorial library by in vivo functional screen. Scientific Reports, 2015, 5, 8070.	3.3	10
43	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
44	Maltose neopentyl glycol-3 (MNG-3) analogues for membrane protein study. Analyst, The, 2015, 140, 3157-3163.	3.5	47
45	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
46	Structure-based mechanism for Na+/melibiose symport by MelB. Nature Communications, 2014, 5, 3009.	12.8	124
47	Suppression of Conformation-Compromised Mutants of Salmonella enterica Serovar Typhimurium MelB. Journal of Bacteriology, 2014, 196, 3134-3139.	2.2	23
48	Novel Tripod Amphiphiles for Membrane Protein Analysis. Chemistry - A European Journal, 2013, 19, 15645-15651.	3.3	49
49	Reduced Na ⁺ Affinity Increases Turnover of Salmonella enterica Serovar Typhimurium MelB. Journal of Bacteriology, 2012, 194, 5538-5544.	2.2	16
50	Role of Gly117 in the Cation/Melibiose Symport of MelB of <i>Salmonella typhimurium</i>. Biochemistry, 2012, 51, 2950-2957.	2.5	18
51	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
52	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
53	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
54	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

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55	Mechanism of Melibiose/Cation Symport of the Melibiose Permease of Salmonella typhimurium. Journal of Biological Chemistry, 2011, 286, 6367-6374.	3.4	66
56	An Early Event in the Transport Mechanism of LacY Protein. Journal of Biological Chemistry, 2011, 286, 30415-30422.	3.4	16
57	Maltoseâ€"neopentyl glycol (MNG) amphiphiles for solubilization, stabilization and crystallization of membrane proteins. Nature Methods, 2010, 7, 1003-1008.	19.0	397
58	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
59	Properties of a LacY Efflux Mutant. Biochemistry, 2009, 48, 9250-9255.	2.5	13
60	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
61	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
62	Site-directed alkylation of cysteine to test solvent accessibility of membrane proteins. Nature Protocols, 2007, 2, 2012-2017.	12.0	49
63	LESSONS FROM LACTOSE PERMEASE. Annual Review of Biophysics and Biomolecular Structure, 2006, 35, 67-91.	18.3	305
64	Structural evidence for induced fit and a mechanism for sugar/H+ symport in LacY. EMBO Journal, 2006, 25, 1177-1183.	7.8	165
65	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
66	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
67	Aromatic Stacking in the Sugar Binding Site of the Lactose Permeaseâ€. Biochemistry, 2003, 42, 1377-1382.	2.5	70
68	Probing the Mechanism of a Membrane Transport Protein with Affinity Inactivators. Journal of Biological Chemistry, 2003, 278, 10641-10648.	3.4	13
69	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
70	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
71	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
72	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

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73	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
74	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