Masahito Yamazaki

List of Publications by Year
in descending order

119 papers	3,931 citations	94433 37 h-index	133252 59 g-index
119 all docs	119 docs citations	119 times ranked	3079 citing authors

#	Article	IF	Citations
1	Single Giant Unilamellar Vesicle Method Reveals Effect of Antimicrobial Peptide Magainin 2 on Membrane Permeabilityâ€. Biochemistry, 2005, 44, 15823-15833.	2.5	213
2	Single GUV Method Reveals Interaction of Tea Catechin (âˆ')-Epigallocatechin Gallate with Lipid Membranes. Biophysical Journal, 2007, 92, 3178-3194.	0.5	135
3	Magainin 2-Induced Pore Formation in the Lipid Membranes Depends on Its Concentration in the Membrane Interface. Journal of Physical Chemistry B, 2009, 113, 4846-4852.	2.6	131
4	Kinetic Pathway of Antimicrobial Peptide Magainin 2-Induced Pore Formation in Lipid Membranes. Journal of Physical Chemistry B, 2010, 114, 12018-12026.	2.6	122
5	Mechanical unfolding of single filamin A (ABP-280) molecules detected by atomic force microscopy. FEBS Letters, 2001, 498, 72-75.	2.8	112
6	Deformation and instability of membrane structure of phospholipid vesicles caused by osmophobic association: mechanical stress model for the mechanism of poly(ethylene glycol)-induced membrane fusion. Biochemistry, 1990, 29, 1309-1314.	2.5	106
7	A new method for the preparation of giant liposomes in high salt concentrations and growth of protein microcrystals in them. Biochimica Et Biophysica Acta - Biomembranes, 2002, 1561, 129-134.	2.6	103
8	Stretch-Activated Pore of the Antimicrobial Peptide, Magainin 2. Langmuir, 2015, 31, 3391-3401.	3.5	102
9	La3+ and Gd3+ induce shape change of giant unilamellar vesicles of phosphatidylcholine. Biochimica Et Biophysica Acta - Biomembranes, 2002, 1564, 173-182.	2.6	94
10	Membrane Fusion of Giant Unilamellar Vesicles of Neutral Phospholipid Membranes Induced by La3+. Langmuir, 2004, 20, 5160-5164.	3.5	94
11	A membrane filtering method for the purification of giant unilamellar vesicles. Chemistry and Physics of Lipids, 2011, 164, 351-358.	3.2	94
12	Shape Changes and Vesicle Fission of Giant Unilamellar Vesicles of Liquid-Ordered Phase Membrane Induced by Lysophosphatidylcholine. Langmuir, 2004, 20, 9526-9534.	3.5	90
13	Osmoelastic coupling in biological structures: formation of parallel bundles of actin filaments in a crystalline-like structure caused by osmotic stress. Biochemistry, 1989, 28, 6513-6518.	2.5	80
14	The single GUV method for revealing the functions of antimicrobial, pore-forming toxin, and cell-penetrating peptides or proteins. Physical Chemistry Chemical Physics, 2014, 16, 15752-15767.	2.8	79
15	Mechanism of Initial Stage of Pore Formation Induced by Antimicrobial Peptide Magainin 2. Langmuir, 2018, 34, 3349-3362.	3.5	75
16	Osmoelastic coupling in biological structures: decrease in membrane fluidity and osmophobic association of phospholipid vesicles in response to osmotic stress. Biochemistry, 1989, 28, 3710-3715.	2.5	73
17	Entry of Cell-Penetrating Peptide Transportan 10 into a Single Vesicle by Translocating Across Lipid Membrane and Its Induced Pores. Biochemistry, 2014, 53, 386-396.	2.5	71
18	Rate Constant of Tension-Induced Pore Formation in Lipid Membranes. Langmuir, 2013, 29, 3848-3852.	3.5	69

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19	Experimental Estimation of Membrane Tension Induced by Osmotic Pressure. Biophysical Journal, 2016, 111, 2190-2201.	0.5	67
20	Effects of electrostatic interaction on the phase stability and structures of cubic phases of monoolein/oleic acid mixture membranes. Biochimica Et Biophysica Acta - Biomembranes, 1999, 1461, 96-102.	2.6	65
21	Vesicle Fission of Giant Unilamellar Vesicles of Liquid-Ordered-Phase Membranes Induced by Amphiphiles with a Single Long Hydrocarbon Chain. Langmuir, 2007, 23, 720-728.	3.5	61
22	Formation of ion channels in lipid bilayers by a peptide with the predicted transmembrane sequence of botulinum neurotoxin A. Protein Science, 1995, 4, 1490-1497.	7.6	60
23	Effect of Electrostatic Interactions on Phase Stability of Cubic Phases of Membranes of Monoolein/Dioleoylphosphatidic Acid Mixtures. Biophysical Journal, 2001, 81, 983-993.	0.5	60
24	Effects of Lipid Composition on the Entry of Cell-Penetrating Peptide Oligoarginine into Single Vesicles. Biochemistry, 2016, 55, 4154-4165.	2.5	60
25	Shape Changes of Giant Unilamellar Vesicles of Phosphatidylcholine Induced by a De Novo Designed Peptide Interacting with Their Membrane Interface. Langmuir, 2002, 18, 9638-9641.	3.5	58
26	Low pH Induces an Interdigitated Gel to Bilayer Gel Phase Transition in Dihexadecylphosphatidylcholine Membrane. Biophysical Journal, 1999, 77, 2015-2023.	0.5	55
27	Phase transitions of phospholipid vesicles under osmotic stress and in the presence of ethylene glycol. Biophysical Chemistry, 1992, 43, 29-37.	2.8	54
28	Formation of Cubic Phases from Large Unilamellar Vesicles of Dioleoylphosphatidylglycerol/Monoolein Membranes Induced by Low Concentrations of Ca2+. Langmuir, 2005, 21, 11556-11561.	3.5	53
29	Effects of Mechanical Properties of Lipid Bilayers on the Entry of Cell-Penetrating Peptides into Single Vesicles. Langmuir, 2017, 33, 2433-2443.	3.5	46
30	Lipid Membrane Formation by Vesicle Fusion on Silicon Dioxide Surfaces Modified with Alkyl Self-Assembled Monolayer Islands. Langmuir, 2004, 20, 7526-7531.	3.5	45
31	The Single-Giant Unilamellar Vesicle Method Reveals Lysenin-Induced Pore Formation in Lipid Membranes Containing Sphingomyelin. Biochemistry, 2012, 51, 5160-5172.	2.5	44
32	Electrostatic interaction effects on tension-induced pore formation in lipid membranes. Physical Review E, 2015, 92, 012708.	2.1	43
33	Communication: Activation energy of tension-induced pore formation in lipid membranes. Journal of Chemical Physics, 2015, 143, 081103.	3.0	43
34	Direct evidence of induction of interdigitated gel structure in large unilamellar vesicles of dipalmitoylphosphatidylcholine by ethanol: studies by excimer method and high-resolution electron cryomicroscopy. Biophysical Journal, 1994, 66, 729-733.	0.5	42
35	Elementary processes for the entry of cell-penetrating peptides into lipid bilayer vesicles and bacterial cells. Applied Microbiology and Biotechnology, 2018, 102, 3879-3892.	3.6	41
36	The mechanism of the stabilization of the hexagonal II (H II) phase in phosphatidylethanolamine membranes in the presence of low concentrations of dimethyl sulfoxide. European Biophysics Journal, 2001, 30, 207-220.	2.2	40

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37	Analysis of constant tension-induced rupture of lipid membranes using activation energy. Physical Chemistry Chemical Physics, 2016, 18, 13487-13495.	2.8	40
38	Low concentration of DMSO stabilizes the bilayer gel phase rather than the interdigitated gel phase in dihexadecylphosphatidylcholine membrane. Biochimica Et Biophysica Acta - Biomembranes, 2000, 1467, 395-405.	2.6	39
39	Organic solvents induce interdigitated gel structures in multilamellar vesicles of dipalmitoylphosphatidylcholine. Biochimica Et Biophysica Acta - Biomembranes, 1996, 1284, 233-239.	2.6	38
40	Mechanical response of single filamin A (ABP-280) molecules and its role in the actin cytoskeleton. Journal of Muscle Research and Cell Motility, 2002, 23, 525-534.	2.0	37
41	Stability of giant unilamellar vesicles and large unilamellar vesicles of liquid-ordered phase membranes in the presence of Triton X-100. Biochimica Et Biophysica Acta - Biomembranes, 2004, 1667, 1-6.	2.6	36
42	Sulfur-doped carbon dots@polydopamine-functionalized magnetic silver nanocubes for dual-modality detection of norovirus. Biosensors and Bioelectronics, 2021, 193, 113540.	10.1	36
43	The role of membrane tension in the action of antimicrobial peptides and cell-penetrating peptides in biomembranes. Biophysical Reviews, 2019, 11, 431-448.	3.2	35
44	Chapter 5 The Single Guv Method to Reveal Elementary Processes of Leakage of Internal Contents from Liposomes Induced by Antimicrobial Substances. Behavior Research Methods, 2008, , 121-142.	4.0	34
45	Effect of de Novo Designed Peptides Interacting with the Lipid-Membrane Interface on the Stability of the Cubic Phases of the Monoolein Membrane. Langmuir, 2003, 19, 4745-4753.	3.5	32
46	Intermembrane distance in multilamellar vesicles of phosphatidylcholine depends on the interaction free energy between solvents and the hydrophilic segments of the membrane surface. Biophysical Chemistry, 1998, 74, 237-249.	2.8	30
47	Spontaneous insertion of lipopolysaccharide into lipid membranes from aqueous solution. Chemistry and Physics of Lipids, 2011, 164, 166-174.	3.2	29
48	Role of Membrane Potential on Entry of Cell-Penetrating Peptide Transportan 10 into Single Vesicles. Biophysical Journal, 2020, 118, 57-69.	0.5	29
49	Osmoelastic coupling in biological structures: a comprehensive thermodynamic analysis of the osmotic response of phospholipid vesicles and a reevaluation of the "dehydration force" theory. Biochemistry, 1989, 28, 5626-5630.	2.5	28
50	Entry of a Six-Residue Antimicrobial Peptide Derived from Lactoferricin B into Single Vesicles and <i>Escherichia coli</i> Cells without Damaging their Membranes. Biochemistry, 2017, 56, 4419-4431.	2.5	28
51	Effect of Positively Charged Short Peptides on Stability of Cubic Phases of Monoolein/Dioleoylphosphatidic Acid Mixtures. Langmuir, 2005, 21, 5290-5297.	3.5	26
52	Low-pH-Induced Transformation of Bilayer Membrane into Bicontinuous Cubic Phase in Dioleoylphosphatidylserine/Monoolein Membranes. Langmuir, 2008, 24, 3400-3406.	3.5	26
53	Antimicrobial Peptide Lactoferricin B-Induced Rapid Leakage of Internal Contents from Single Giant Unilamellar Vesicles. Biochemistry, 2015, 54, 5802-5814.	2.5	25
54	Elementary processes of antimicrobial peptide PGLa-induced pore formation in lipid bilayers. Biochimica Et Biophysica Acta - Biomembranes, 2018, 1860, 2262-2271.	2.6	25

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55	Studies of alcohol-induced interdigitated gel phase in phosphatidylcholine multilamellar vesicles by the excimer method. Biochimica Et Biophysica Acta - Biomembranes, 1992, 1106, 94-98.	2.6	24
56	Interaction of the surface of biomembrane with solvents: structure of multilamellar vesicles of dipalmitoylphosphatidylcholine in acetone-water mixtures. Chemistry and Physics of Lipids, 1997, 85, 53-65.	3.2	24
57	Continuous detection of entry of cell-penetrating peptide transportan 10 into single vesicles. Chemistry and Physics of Lipids, 2018, 212, 120-129.	3.2	24
58	Membrane potential is vital for rapid permeabilization of plasma membranes and lipid bilayers by the antimicrobial peptide lactoferricin B. Journal of Biological Chemistry, 2019, 294, 10449-10462.	3.4	24
59	Action of antimicrobial peptides and cell-penetrating peptides on membrane potential revealed by the single GUV method. Biophysical Reviews, 2020, 12, 339-348.	3.2	24
60	Polymorphism of F-Actin Assembly. 1. A Quantitative Phase Diagram of F-Actin. Biochemistry, 1996, 35, 5238-5244.	2.5	22
61	Fluorescent and electrochemical dual-mode detection of Chikungunya virus E1 protein using fluorophore-embedded and redox probe-encapsulated liposomes. Mikrochimica Acta, 2020, 187, 674.	5.0	22
62	Design and Facile Synthesis of Neoglycolipids as Lactosylceramide Mimetics and Their Transformation into Glycoliposomes. Bioscience, Biotechnology and Biochemistry, 2005, 69, 166-178.	1.3	21
63	Phase transition between hexagonal II(HII) and liquid-crystalline phase induced by interaction between solvents and segments of the membrane surface of dioleoylphosphatidylethanolamine. Biochimica Et Biophysica Acta - Biomembranes, 1997, 1330, 199-206.	2.6	20
64	Atomic force microscopy studies of interaction of the 20S proteasome with supported lipid bilayers. Biochimica Et Biophysica Acta - Biomembranes, 2003, 1615, 1-6.	2.6	19
65	Membrane Tension in Negatively Charged Lipid Bilayers in a Buffer under Osmotic Pressure. Journal of Physical Chemistry B, 2020, 124, 5588-5599.	2.6	19
66	Initial Step of pH-Jump-Induced Lamellar to Bicontinuous Cubic Phase Transition in Dioleoylphosphatidylserine/Monoolein. Langmuir, 2014, 30, 8131-8140.	3.5	18
67	Poly(ethylene glycol)-induced shrinkage of Sephadex gel. A model system for quantitative analysis of osmoelastic coupling. Biophysical Journal, 1989, 56, 707-711.	0.5	17
68	La3+ stabilizes the hexagonal II (HII) phase in phosphatidylethanolamine membranes. Biochimica Et Biophysica Acta - Biomembranes, 2001, 1515, 189-201.	2.6	17
69	Cationic DMPC/DMTAP Lipid Bilayers:Â Local Lateral Polarization of Phosphatidylcholine Headgroups. Langmuir, 2005, 21, 5677-5680.	3.5	16
70	Effect of osmotic pressure on pore formation in lipid bilayers by the antimicrobial peptide magainin 2. Physical Chemistry Chemical Physics, 2022, 24, 6716-6731.	2.8	16
71	The Single GUV Method for Probing Biomembrane Structure and Function. E-Journal of Surface Science and Nanotechnology, 2005, 3, 218-227.	0.4	15
72	Kinetics of low pH-induced lamellar to bicontinuous cubic phase transition in dioleoylphosphatidylserine/monoolein. Journal of Chemical Physics, 2011, 134, 145102.	3.0	15

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73	Activation Energy of the Low-pH-Induced Lamellar to Bicontinuous Cubic Phase Transition in Dioleoylphosphatidylserine/Monoolein. Langmuir, 2016, 32, 1327-1337.	3.5	15
74	Effect of membrane potential on pore formation by the antimicrobial peptide magainin 2 in lipid bilayers. Biochimica Et Biophysica Acta - Biomembranes, 2020, 1862, 183381.	2.6	15
75	Mechanical response of single filamin A (ABP-280) molecules and its role in the actin cytoskeleton. , 2003, , 525-534.		14
76	Use of Target-Specific Liposome and Magnetic Nanoparticle Conjugation for the Amplified Detection of Norovirus. ACS Applied Bio Materials, 2020, 3, 3560-3568.	4.6	13
77	Osmotic stress induces a phase transition from interdigitated gel phase to bilayer gel phase in multilamellar vesicles of dihexadecylphosphatidylcholine. Biophysical Chemistry, 1997, 65, 229-233.	2.8	12
78	Low-pH-Induced Lamellar to Bicontinuous Primitive Cubic Phase Transition in Dioleoylphosphatidylserine/Monoolein Membranes. Langmuir, 2017, 33, 12487-12496.	3.5	12
79	A Model for Targeting Colon Carcinoma Cells Using Single-Chain Variable Fragments Anchored on Virus-Like Particles via Glycosyl Phosphatidylinositol Anchor. Pharmaceutical Research, 2014, 31, 2166-2177.	3.5	11
80	Effect of membrane tension on transbilayer movement of lipids. Journal of Chemical Physics, 2018, 148, 245101.	3.0	11
81	Effect of Membrane Potential on Entry of Lactoferricin B-Derived 6-Residue Antimicrobial Peptide into Single Escherichia coli Cells and Lipid Vesicles. Journal of Bacteriology, 2021, 203, .	2.2	11
82	Phase separation of triton X-100 micelle solution induced by osmotic stress. Biochimica Et Biophysica Acta - Biomembranes, 1991, 1063, 175-177.	2.6	10
83	Effects of solvents interacting favorably with hydrophilic segments of the membrane surface of phosphatidylcholine on their gel-phase membranes in water. Biophysical Chemistry, 1999, 81, 191-196.	2.8	10
84	Chapter 7 Transformation Between Liposomes and Cubic Phases of Biological Lipid Membranes Induced by Modulation of Electrostatic Interactions. Behavior Research Methods, 2009, , 163-209.	4.0	10
85	Elementary Processes and Mechanisms of Interactions of Antimicrobial Peptides with Membranesâ€"Single Giant Unilamellar Vesicle Studiesâ€". Advances in Experimental Medicine and Biology, 2019, 1117, 17-32.	1.6	10
86	Effect of oligomers of ethylene glycol on thermotropic phase transition of dipalmitoylphosphatidylcholine multilamellar vesicles. Biochimica Et Biophysica Acta - Biomembranes, 1992, 1109, 43-47.	2.6	9
87	Detection of the Entry of Nonlabeled Transportan 10 into Single Vesicles. Biochemistry, 2020, 59, 1780-1790.	2.5	7
88	The â€œLe Chatelier's Principleâ€•Governed Response of Actin Filaments to Osmotic Stress. Journal of Physical Chemistry B, 2006, 110, 13572-13581.	2.6	6
89	A model of pressure-induced interdigitation of phospholipid membranes. Chemical Physics Letters, 2002, 360, 515-520.	2.6	5
90	Low concentration of dioleoylphosphatidic acid induces an inverted hexagonal (HII) phase transition in dipalmitoleoylphosphatidylethanolamine membranes. Biophysical Chemistry, 2004, 109, 149-155.	2.8	5

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91	Translocation of the nonlabeled antimicrobial peptide PGLa across lipid bilayers and its entry into vesicle lumens without pore formation. Biochimica Et Biophysica Acta - Biomembranes, 2021, 1863, 183680.	2.6	5
92	Single-Cell Analysis of the Antimicrobial and Bactericidal Activities of the Antimicrobial Peptide Magainin 2. Microbiology Spectrum, 2022, 10, .	3.0	5
93	Effect of Transmembrane Asymmetric Distribution of Lipids and Peptides on Lipid Bilayers. Journal of Physical Chemistry B, 2019, 123, 4645-4652.	2.6	4
94	Ion Permeability of a Membrane with Soft Polar Interfaces. 2. The Polar Zones as the Rate-Determining Step. Langmuir, 1998, 14, 4630-4637.	3.5	3
95	The effect of peptides and ions interacting with an electrically neutral membrane interface on the structure and stability of lipid membranes in the liquid-crystalline phase and in the liquid-ordered phase. Journal of Physics Condensed Matter, 2005, 17, S2979-S2989.	1.8	3
96	High affinity Zn2+ inhibitory site(s) for the trypsin-like peptidase of the 20S proteasome. Archives of Biochemistry and Biophysics, 2008, 477, 113-120.	3.0	3
97	A Single GUV Method for Revealing the Action of Cell-Penetrating Peptides in Biomembranes. Methods in Molecular Biology, 2022, 2383, 167-179.	0.9	3
98	Effect of electrostatic interactions on phase stability of cubic phases of biomembranes. Journal of Biological Physics, 2002, 28, 253-266.	1.5	2
99	Optical nanospectroscopy applications in material science. Applied Surface Science, 2004, 234, 374-386.	6.1	2
100	Water permeability of lipid membranes of GUVs and its dependence on actin cytoskeletons inside the GUVs. , 2008, , .		2
101	Low pH Stabilizes the Inverted Hexagonal II Phase in Dipalmitoleoylphosphatidylethanolamine Membrane. Journal of Biological Physics, 2004, 30, 377-386.	1.5	1
102	2P272 Characterization of the pore in lipid mamabranes induced by antimicrobialpeptide, magainin 2(Native and artificial biomembranes-dynamics,Poster Presentations). Seibutsu Butsuri, 2007, 47, S181.	0.1	1
103	Effects of Surface Charge Density of Lipid Membranes on the Pore Formation Induced by Magainin 2. , 2007, , .		1
104	1K1130 Effects of Electrostatic Interaction and Peptide-Membrane Interaction onPhase Stability and Structure of Cubic Phases of Lipid Membranes. Seibutsu Butsuri, 2000, 40, S84.	0.1	0
105	Membrane Fusion of Giant Liposomes of Neutral Phospholipid Membranes Induced by La3+ and Gd3+. AIP Conference Proceedings, 2004, , .	0.4	0
106	Electrostatic Effects in Phase Transitions of Biomembranes between Cubic Phases and Lamellar Liquid-Crystalline (LÎ±) phase. AIP Conference Proceedings, 2004, , .	0.4	0
107	Single Giant Unilamellar Vesicle Method Reveals Effect of Antimicrobial Peptide, Magainin 2, and Antibacterial Substance, Tea Catechin, on Membrane Permeability and Membrane Structure. , 2006, , .		0
108	1P309 Elasticity of Solutions of Actin Filaments with Polymorphous Assembly Structures(10.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 67 T 2006, 46, S224.	0.1	0

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109	1P-213 Interaction of Cell Penerating Peptide, Transportan 10, with single GUVs of lipid membrane(The) Tj ETQq1 1 0.784314 rgBT /Ove	0.1	0
110	1P-210 Effects of Surface Charge Density of Lipid Membranes on the Pore Formation Induced by Magainin 2 : the Single GUV Method Study (2)(The 46th Annual Meeting of the Biophysical Society of) Tj ETQq0 0 0 rgBT /Overlock 10 T	0.1	0
111	The size of the pore in lipid membranes induced by antimicrobial peptide magainin 2. , 2009, , .		0
112	Phase Transition in Di-oleoylphosphatidylglycerol/Monoolein Membranes due to Interactions of Positively Charged Peptides at their Lipid Membrane-Interface. Bangladesh Journal of Scientific and Industrial Research, 2010, 45, 219-224.	0.3	0
113	2A1536 Dependence of Lysenin-Induced Membrane Permeability on Cholesterol and Lysenin Concentration in the Membrane Surface(Biol & Artifi memb 2: Structure & Property, Dynamics,) Tj ETQq1 1 0.784314 rgBT /O 2011, 51, S74.	0.1	0
114	2A1548 Effects of Binding of Magainin 2 to Lipid Membranes on Surface Area and Volume of Single GUVs(Biol & Artifi memb 2: Structure & Property, Dynamics, Signal transduction,The 48th) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	0.1	0
115	1P215 Initial Step of Low pH-Induced Lamellar to Bicontinuous Cubic Phase Transition in Dioleoylphosphatidylserine/Monoolein(13B.Biological & Artifical membrane: Dynamics,Poster,The) Tj ETQq1 1 0.784314 rgBT /Ove	0.1	0
116	1P218 Permeation of Cell-Penetrating Peptide Transportan 10 through Lipid Membranes before Pore Formation(13B. Biological & Artifical membrane: Dynamics,Poster). Seibutsu Butsuri, 2013, 53, S142.	0.1	0
117	1P216 Effects of Mechanical Properties of Lipid Membranes on Antimicrobial Peptide Magainin 2-Induced Pore Formation(13B.Biological & Artifical membrane: Dynamics,Poster,The 51st Annual Meeting of) Tj ETQq1 1 0.784314 rgBT /Ove	0.1	0
118	1P217 Effects of Electrostatic Interactions on Rate Constants of Tension-Induced Pore Formation in Single GUVs(13B.Biological & Artifical membrane: Dynamics,Poster,The 51st Annual Meeting of the) Tj ETQq0 0 0 rgBT /Overlock 1	0.1	0
119	2P215 Initial Step of Low pH-Induced Structural Transition from Unilamellar Vesicles of DOPS/MO to Inverse Bicontinuous Cubic Phase(13B. Biological & Artificial membrane:Dynamics,Poster). Seibutsu Butsuri, 2014, 54, S230.	0.1	0