Oleg Batishchev

List of Publications by Year
in descending order

72 papers	939 citations	516710 16 h-index	501196 28 g-index
82 all docs	82 docs citations	82 times ranked	972 citing authors

#	Article	IF	Citations
1	Pore formation in lipid membrane I: Continuous reversible trajectory from intact bilayer through hydrophobic defect to transversal pore. Scientific Reports, 2017, 7, 12152.	3.3	102
2	Single HA2 Mutation Increases the Infectivity and Immunogenicity of a Live Attenuated H5N1 Intranasal Influenza Vaccine Candidate Lacking NS1. PLoS ONE, 2011, 6, e18577.	2.5	75
3	Pore formation in lipid membrane II: Energy landscape under external stress. Scientific Reports, 2017, 7, 12509.	3.3	73
4	Structural Analysis of Influenza A Virus Matrix Protein M1 and Its Self-Assemblies at Low pH. PLoS ONE, 2013, 8, e82431.	2.5	60
5	Origin of proton affinity to membrane/water interfaces. Scientific Reports, 2017, 7, 4553.	3.3	49
6	Heat transport and electron distribution function in laser produced plasmas with hot spots. Physics of Plasmas, 2002, 9, 2302-2310.	1.9	40
7	Line Activity of Ganglioside GM1 Regulates the Raft Size Distribution in a Cholesterol-Dependent Manner. Langmuir, 2017, 33, 3517-3524.	3.5	37
8	pH-Dependent Formation and Disintegration of the Influenza A Virus Protein Scaffold To Provide Tension for Membrane Fusion. Journal of Virology, 2016, 90, 575-585.	3.4	36
9	Matrix proteins of enveloped viruses: a case study of Influenza A virus M1 protein. Journal of Biomolecular Structure and Dynamics, 2019, 37, 671-690.	3.5	30
10	Alkylated glass partition allows formation of solvent-free lipid bilayer by Montalâ€"Mueller technique. Bioelectrochemistry, 2008, 74, 22-25.	4.6	28
11	Continuum Models of Membrane Fusion: Evolution of the Theory. International Journal of Molecular Sciences, 2020, 21, 3875.	4.1	27
12	Elastic deformations mediate interaction of the raft boundary with membrane inclusions leading to their effective lateral sorting. Scientific Reports, 2020, 10, 4087.	3.3	27
13	Membrane-mediated interaction of amphipathic peptides can be described by a one-dimensional approach. Physical Review E, 2019, 99, 022401.	2.1	26
14	Influenza virus Matrix Protein M1 preserves its conformation with pH, changing multimerization state at the priming stage due to electrostatics. Scientific Reports, 2017, 7, 16793.	3.3	25
15	Lateral Membrane Heterogeneity Regulates Viral-Induced Membrane Fusion during HIV Entry. International Journal of Molecular Sciences, 2018, 19, 1483.	4.1	22
16	Lateral stress profile and fluorescent lipid probes. FRET pair of probes that introduces minimal distortions into lipid packing. Biochimica Et Biophysica Acta - Biomembranes, 2018, 1860, 2337-2347.	2.6	20
17	Residence time of singlet oxygen in membranes. Scientific Reports, 2018, 8, 14000.	3.3	17
18	Phosphatidylcholine Membrane Fusion Is pH-Dependent. International Journal of Molecular Sciences, 2018, 19, 1358.	4.1	17

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19	Spatial organization of Dps and DNAâ€“Dps complexes. Journal of Molecular Biology, 2021, 433, 166930.	4.2	17
20	Switching between Successful and Dead-End Intermediates in Membrane Fusion. International Journal of Molecular Sciences, 2017, 18, 2598.	4.1	15
21	Monolayerwise application of linear elasticity theory well describes strongly deformed lipid membranes and the effect of solvent. Soft Matter, 2020, 16, 1179-1189.	2.7	14
22	Solution Structure, Self-Assembly, and Membrane Interactions of the Matrix Protein from Newcastle Disease Virus at Neutral and Acidic pH. Journal of Virology, 2019, 93, .	3.4	13
23	Interaction of Polylysines with the Surface of Lipid Membranes. Behavior Research Methods, 2013, 17, 139-166.	4.0	11
24	The dimeric ectodomain of the alkali-sensing insulin receptorâ€“related receptor (ectoIRR) has a droplike shape. Journal of Biological Chemistry, 2019, 294, 17790-17798.	3.4	10
25	Effects of Sterols on the Interaction of SDS, Benzalkonium Chloride, and A Novel Compound, Kor105, with Membranes. Biomolecules, 2019, 9, 627.	4.0	10
26	Model of membrane fusion: Continuous transition to fusion pore with regard of hydrophobic and hydration interactions. Biochemistry (Moscow) Supplement Series A: Membrane and Cell Biology, 2014, 8, 153-161.	0.6	9
27	The Effect of Transmembrane Protein Shape on Surrounding Lipid Domain Formation by Wetting. Biomolecules, 2019, 9, 729.	4.0	9
28	Elasticity and phase behaviour of biomimetic membrane systems containing tetraether archaeal lipids. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 601, 124974.	4.7	9
29	The Cytoplasmic Tail of Influenza A Virus Hemagglutinin and Membrane Lipid Composition Change the Mode of M1 Protein Association with the Lipid Bilayer. Membranes, 2021, 11, 772.	3.0	8
30	Interaction of amphipathic peptides mediated by elastic membrane deformations. Biochemistry (Moscow) Supplement Series A: Membrane and Cell Biology, 2017, 11, 206-216.	0.6	7
31	Lipid Membrane Adsorption Determines Photodynamic Efficiency of Î²-Imidazolyl-Substituted Porphyrins. Biomolecules, 2019, 9, 853.	4.0	7
32	BILMIX: a new approach to restore the size polydispersity and electron density profiles of lipid bilayers from liposomes using small-angle X-ray scattering data. Journal of Applied Crystallography, 2020, 53, 236-243.	4.5	7
33	Activity-dependent conformational transitions of the insulin receptorâ€“related receptor. Journal of Biological Chemistry, 2021, 296, 100534.	3.4	7
34	Peptide-induced membrane elastic deformations decelerate gramicidin dimer-monomer equilibration. Biophysical Journal, 2021, 120, 5309-5321.	0.5	7
35	Membrane-Mediated Lateral Interactions Regulate the Lifetime of Gramicidin Channels. Membranes, 2020, 10, 368.	3.0	6
36	Amphipathic CRAC-Containing Peptides Derived from the Influenza Virus A M1 Protein Modulate Cholesterol-Dependent Activity of Cultured IC-21 Macrophages. Biochemistry (Moscow), 2018, 83, 982-991.	1.5	5

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37	Ectodomain Pulling Combines with Fusion Peptide Inserting to Provide Cooperative Fusion for Influenza Virus and HIV. International Journal of Molecular Sciences, 2020, 21, 5411.	4.1	5
38	Quasi-Atomistic Approach to Modeling of Liposomes. Crystallography Reports, 2020, 65, 258-263.	0.6	5
39	Isoprenoid lipid chains increase membrane resistance to pore formation. Biochemistry (Moscow) Supplement Series A: Membrane and Cell Biology, 2014, 8, 304-308.	0.6	4
40	Study of adsorption of Influenza virus matrix protein M1 on lipid membranes by the technique of fluorescent probes. Biochemistry (Moscow) Supplement Series A: Membrane and Cell Biology, 2017, 11, 225-230.	0.6	4
41	Small-angle X-Ray analysis of macromolecular structure: the structure of protein NS2 (NEP) in solution. Crystallography Reports, 2017, 62, 894-902.	0.6	4
42	Voltammetric Analysis in Blood Serum in Patients with Severe Combined Trauma. Doklady Physical Chemistry, 2019, 486, 67-69.	0.9	4
43	Effect of acidity on the formation of solvent-free lipid bilayers. Russian Journal of Electrochemistry, 2006, 42, 1107-1112.	0.9	3
44	Molecular distribution and charge of polylysine layers at the surface of lipid membranes and mica. Biochemistry (Moscow) Supplement Series A: Membrane and Cell Biology, 2009, 3, 496-503.	0.6	3
45	Electron transport and morphological changes in the electrode/erythrocyte system. Mendeleev Communications, 2017, 27, 183-185.	1.6	3
46	Mechanism of pore formation in stearoyl-oleoyl-phosphatidylcholine membranes subjected to lateral tension. Biochemistry (Moscow) Supplement Series A: Membrane and Cell Biology, 2017, 11, 193-205.	0.6	3
47	Electrochemical activity and morphology of human erythrocytes at optically transparent ITO electrode. Doklady Physical Chemistry, 2017, 477, 201-204.	0.9	3
48	Cyclopentane rings in hydrophobic chains of a phospholipid enhance the bilayer stability to electric breakdown. Soft Matter, 2020, 16, 3216-3223.	2.7	3
49	Superhydrophobization of low-carbon steel with conversion coatings. Protection of Metals and Physical Chemistry of Surfaces, 2014, 50, 898-902.	1.1	2
50	Line tension and structure of through pore edge in lipid bilayer. Biochemistry (Moscow) Supplement Series A: Membrane and Cell Biology, 2014, 8, 297-303.	0.6	2
51	Protein-Lipid Interactions in Formation of Viral Envelopes. Biophysical Journal, 2020, 118, 523a.	0.5	2
52	Membrane shape changes at initial stage of membrane fusion under the action of proteins inducing spontaneous curvature. Biochemistry (Moscow) Supplement Series A: Membrane and Cell Biology, 2013, 7, 234-241.	0.6	1
53	Normal Fluctuations of Biological Membrane Shape as a Coupling Factor for Ordered Monolayer Domains. Biochemistry (Moscow) Supplement Series A: Membrane and Cell Biology, 2019, 13, 205-211.	0.6	1
54	Scanning probe microscopy investigation of the bacteriophage effect on bacterial biofilms. Microscopy and Microanalysis, 2021, 27, 504-506.	0.4	1

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55	Interaction of Ordered Lipid Domain Boundaries and Amphipathic Peptides Regulates Probability of Pore Formation in Membranes. Biochemistry (Moscow) Supplement Series A: Membrane and Cell Biology, 2020, 14, 319-330.	0.6	1
56	Experimental and theoretical studies of self-organization of complex protein structures. Biochemistry (Moscow) Supplement Series A: Membrane and Cell Biology, 2009, 3, 308-308.	0.6	0
57	Mechanisms of Self-Assembly and Dissection of Influenza A Virus Protein Scaffold. Biophysical Journal, 2014, 106, 63a.	0.5	0
58	Influence of Ether Bonds and Branched Lipid Tails on Stability of Membranes to Pore Formation. Biophysical Journal, 2015, 108, 238a-239a.	0.5	0
59	Edge Structure of through Pore in Lipid Membrane. Biophysical Journal, 2015, 108, 88a.	0.5	0
60	Mechanism of Line Activity of Ganglioside GM1 on Liquid-Ordered Domains. Biophysical Journal, 2016, 110, 582a.	0.5	0
61	Electrostatic Forces Govern Assembly and Disintegration of the Influenza Virus Protein Scaffold to Provide Tension for Membrane Fusion. Biophysical Journal, 2016, 110, 421a.	0.5	0
62	Assembly of Matrix Protein 1 of Influenza a Virus and its Role in Budding Process. Biophysical Journal, 2017, 112, 390a.	0.5	0
63	The Pathway of Singlet Oxygen Diffusion through the Membrane Governs Whether Double Bonds or Aromatic Rings of a Molecule are Damaged. Biophysical Journal, 2017, 112, 522a-523a.	0.5	0
64	Energy Landscape of Pore Formation in Bilayer Lipid Membrane. Biophysical Journal, 2017, 112, 468a.	0.5	0
65	Energy Landscape of Membrane Deformations Predicts Mechanism of Pore Formation by Antimicrobial Peptides. Biophysical Journal, 2018, 114, 260a.	0.5	0
66	Electrochemical Interactions upon Contact of Erythrocytes with Platinum. Russian Journal of Electrochemistry, 2018, 54, 1126-1131.	0.9	0
67	Gangliosides and Lysolipids Regulate the Size of Membrane Rafts Depending on the Membrane Composition. Biophysical Journal, 2018, 114, 271a.	0.5	0
68	Effect of Lipid Structure and Material Properties on the Membrane Stability to Pore Formation. Biophysical Journal, 2020, 118, 390a.	0.5	0
69	Lateral Interactions Influence the Kinetics of Metastable Pores in Lipid Membranes. Biochemistry (Moscow) Supplement Series A: Membrane and Cell Biology, 2020, 14, 117-125.	0.6	0
70	Atomic Force Microscopy in the Study of Protein Self-Assembly. Biophysical Journal, 2020, 118, 200a.	0.5	0
71	Physicochemical and Electrochemical Aspects of the Functioning of Biological Membranes. Russian Journal of Physical Chemistry A, 2020, 94, 471-476.	0.6	0
72	Nanoscale Characterization of Specific Interaction of Lytic Bacteriophages with Biofilms. Biophysical Journal, 2021, 120, 275a.	0.5	0