Reinhard Lipowsky

List of Publications by Year
in descending order

316	23,504	6613	10158
papers	citations	79 h-index	140 g-index

330	330	330	14080
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Liquid Morphologies on Structured Surfaces: From Microchannels to Microchips. Science, 1999, 283, 46-49.	12.6	955
2	The conformation of membranes. Nature, 1991, 349, 475-481.	27.8	913
3	Shape transformations of vesicles: Phase diagram for spontaneous- curvature and bilayer-coupling models. Physical Review A, 1991, 44, 1182-1202.	2.5	796
4	Computer simulations of bilayer membranes: Self-assembly and interfacial tension. Journal of Chemical Physics, 1998, 108, 7397-7409.	3.0	487
5	Tug-of-war as a cooperative mechanism for bidirectional cargo transport by molecular motors. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 4609-4614.	7.1	467
6	Adhesion of vesicles. Physical Review A, 1990, 42, 4768-4771.	2.5	457
7	Mobility and Elasticity of Self-Assembled Membranes. Physical Review Letters, 1999, 82, 221-224.	7.8	457
8	Tension-induced fusion of bilayer membranes and vesicles. Nature Materials, 2005, 4, 225-228.	27.5	369
9	Critical Surface Phenomena at First-Order Bulk Transitions. Physical Review Letters, 1982, 49, 1575-1578.	7.8	359
10	Equilibrium structure and lateral stress distribution of amphiphilic bilayers from dissipative particle dynamics simulations. Journal of Chemical Physics, 2002, 117, 5048-5061.	3.0	353
11	Cooperative cargo transport by several molecular motors. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 17284-17289.	7.1	347
12	Wetting morphologies at microstructured surfaces. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 1848-1852.	7.1	346
13	Fluid Vesicles in Shear Flow. Physical Review Letters, 1996, 77, 3685-3688.	7.8	324
14	Unbinding Transitions of Interacting Membranes. Physical Review Letters, 1986, 56, 2541-2544.	7.8	320
15	Domain-induced budding of vesicles. Physical Review Letters, 1993, 70, 2964-2967.	7.8	317
16	Sequential bottom-up assembly of mechanically stabilized synthetic cells by microfluidics. Nature Materials, 2018, 17, 89-96.	27.5	314
17	Contact Angles on Heterogeneous Surfaces:â€‰ A New Look at Cassie's and Wenzel's Laws. Langmuir, 1998, 14, 6772-6780.	3.5	301
18	Effect of cholesterol on the rigidity of saturated and unsaturated membranes: fluctuation and electrodeformation analysis of giant vesicles. Soft Matter, 2010, 6, 1472.	2.7	301

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19	Shape transformations of vesicles with intramembrane domains. Physical Review E, 1996, 53, 2670-2683.	2.1	270
20	A practical guide to giant vesicles. Probing the membrane nanoregime via optical microscopy. Journal of Physics Condensed Matter, 2006, 18, S1151-S1176.	1.8	266
21	Spontaneous tubulation of membranes and vesicles reveals membrane tension generated by spontaneous curvature. Faraday Discussions, 2013, 161, 305-331.	3.2	241
22	Morphological Transitions of Wetting Layers on Structured Surfaces. Physical Review Letters, 1998, 80, 1920-1923.	7.8	240
23	Random Walks of Cytoskeletal Motors in Open and Closed Compartments. Physical Review Letters, 2001, 87, 108101.	7.8	240
24	Budding of membranes induced by intramembrane domains. Journal De Physique II, 1992, 2, 1825-1840.	0.9	238
25	MaxSynBio: Avenues Towards Creating Cells from the Bottom Up. Angewandte Chemie - International Edition, 2018, 57, 13382-13392.	13.8	234
26	Time scales of membrane fusion revealed by direct imaging of vesicle fusion with high temporal resolution. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 15841-15846.	7.1	219
27	The 2018 biomembrane curvature and remodeling roadmap. Journal Physics D: Applied Physics, 2018, 51, 343001.	2.8	212
28	Giant vesicles in electric fields. Soft Matter, 2007, 3, 817.	2.7	201
29	Traffic of Molecular Motors Through Tube-Like Compartments. Journal of Statistical Physics, 2003, 113, 233-268.	1.2	193
30	Scaling regimes and functional renormalization for wetting transitions. Physical Review B, 1987, 36, 2126-2141.	3.2	192
31	Wrapping of nanoparticles by membranes. Advances in Colloid and Interface Science, 2014, 208, 214-224.	14.7	186
32	Dissipative Particle Dynamics Simulations of Polymersomes. Journal of Physical Chemistry B, 2005, 109, 17708-17714.	2.6	185
33	Budding Dynamics of Multicomponent Membranes. Physical Review Letters, 2001, 86, 3911-3914.	7.8	181
34	Transport of Beads by Several Kinesin Motors. Biophysical Journal, 2008, 94, 532-541.	0.5	177
35	Wetting morphologies on substrates with striped surface domains. Journal of Applied Physics, 2002, 92, 4296-4306.	2.5	174
36	Domain-induced budding of fluid membranes. Biophysical Journal, 1993, 64, 1133-1138.	0.5	168

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37	Kinesinâ€™s Network of Chemomechanical Motor Cycles. Physical Review Letters, 2007, 98, 258102.	7.8	166
38	The Fusion of Membranes and Vesicles: Pathway and Energy Barriers from Dissipative Particle Dynamics. Biophysical Journal, 2009, 96, 2658-2675.	0.5	160
39	Pathway of Membrane Fusion with Two Tension-Dependent Energy Barriers. Physical Review Letters, 2007, 98, 218101.	7.8	158
40	Adhesion of Vesicles and Membranes. Molecular Crystals and Liquid Crystals, 1991, 202, 17-25.	0.7	157
41	Vesicles in electric fields: Some novel aspects of membrane behavior. Soft Matter, 2009, 5, 3201.	2.7	155
42	Critical Particle Sizes for the Engulfment of Nanoparticles by Membranes and Vesicles with Bilayer Asymmetry. ACS Nano, 2015, 9, 3704-3720.	14.6	148
43	Tubulation and Aggregation of Spherical Nanoparticles Adsorbed on Vesicles. Physical Review Letters, 2012, 109, 188102.	7.8	144
44	Controlled division of cell-sized vesicles by low densities of membrane-bound proteins. Nature Communications, 2020, 11, 905.	12.8	143
45	Solvent-Exposed Tails as Prestalk Transition States for Membrane Fusion at Low Hydration. Journal of the American Chemical Society, 2010, 132, 6710-6718.	13.7	142
46	Membrane nanotubes induced by aqueous phase separation and stabilized by spontaneous curvature. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 4731-4736.	7.1	141
47	Transient binding of dynein controls bidirectional long-range motility of early endosomes. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 3618-3623.	7.1	139
48	Individual Actin Filaments in a Microfluidic Flow Reveal the Mechanism of ATP Hydrolysis and Give Insight Into the Properties of Profilin. PLoS Biology, 2011, 9, e1001161.	5.6	138
49	The morphology of lipid membranes. Current Opinion in Structural Biology, 1995, 5, 531-540.	5.7	123
50	Cell rigidity and shape override CD47â€™s â€œselfâ€•signaling in phagocytosis by hyperactivating myosin-II. Blood, 2015, 125, 542-552.	1.4	122
51	Interactions of Alkali Metal Chlorides with Phosphatidylcholine Vesicles. Langmuir, 2010, 26, 18951-18958.	3.5	120
52	Concentration Dependence of the Interfacial Tension for Aqueous Two-Phase Polymer Solutions of Dextran and Polyethylene Glycol. Langmuir, 2012, 28, 3831-3839.	3.5	118
53	Pattern Formation during T-Cell Adhesion. Biophysical Journal, 2004, 87, 3665-3678.	0.5	117
54	Binding constants of membrane-anchored receptors and ligands depend strongly on the nanoscale roughness of membranes. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 15283-15288.	7.1	117

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55	Domains in membranes and vesicles. Journal of Physics Condensed Matter, 2003, 15, S31-S45.	1.8	114
56	Spontaneous curvature of fluid vesicles induced by trans-bilayer sugar asymmetry. European Biophysics Journal, 1999, 28, 174-178.	2.2	110
57	Presynaptic Biogenesis Requires Axonal Transport of Lysosome-Related Vesicles. Neuron, 2018, 99, 1216-1232.e7.	8.1	109
58	Elastic Properties of Polymer-Decorated Membranes. Journal De Physique II, 1996, 6, 1465-1481.	0.9	104
59	Complete unbinding and quasi-long-range order in lamellar phases. Physical Review B, 1987, 35, 7004-7009.	3.2	102
60	Bidirectional Transport by Molecular Motors: Enhanced Processivity and Response to External Forces. Biophysical Journal, 2010, 98, 2610-2618.	0.5	99
61	Surface critical phenomena at first-order phase transitions. Ferroelectrics, 1987, 73, 69-81.	0.6	98
62	Wetting on cylinders and spheres. Physical Review B, 1987, 36, 8725-8735.	3.2	98
63	Wetting and dewetting of structured and imprinted surfaces. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2000, 161, 3-22.	4.7	97
64	Phase Diagram and Tie-Line Determination for the Ternary Mixture DOPC/eSM/Cholesterol. Biophysical Journal, 2013, 104, 1456-1464.	0.5	97
65	Spontaneous curvature of bilayer membranes from molecular simulations: Asymmetric lipid densities and asymmetric adsorption. Journal of Chemical Physics, 2015, 142, 054101.	3.0	97
66	Improved dissipative particle dynamics simulations of lipid bilayers. Journal of Chemical Physics, 2007, 126, 015101.	3.0	95
67	The glycolipid GM1 reshapes asymmetric biomembranes and giant vesicles by curvature generation. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 5756-5761.	7.1	95
68	Enhanced Ordering of Interacting Filaments by Molecular Motors. Physical Review Letters, 2006, 96, 258103.	7.8	94
69	Molecular motor traffic: From biological nanomachines to macroscopic transport. Physica A: Statistical Mechanics and Its Applications, 2006, 372, 34-51.	2.6	94
70	Diffusion-Limited Growth of Wetting Layers. Physical Review Letters, 1986, 57, 353-356.	7.8	92
71	Morphological Transitions of Vesicles Induced by Alternating Electric Fields. Biophysical Journal, 2008, 95, L19-L21.	0.5	92
72	Tension-induced vesicle fusion: pathways and pore dynamics. Soft Matter, 2008, 4, 1208.	2.7	92

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73	Adhesion of membranes via receptorâ€“ligand complexes: Domain formation, binding cooperativity, and active processes. Soft Matter, 2009, 5, 3213.	2.7	92
74	â€˜Life is motionâ€™: multiscale motility of molecular motors. Physica A: Statistical Mechanics and Its Applications, 2005, 352, 53-112.	2.6	90
75	Binding and unbinding of lipid membranes: A Monte Carlo study. Physical Review Letters, 1989, 62, 1572-1575.	7.8	88
76	Network Brownian Motion: A New Method to Measure Vertex-Vertex Proximity and to Identify Communities and Subcommunities. Lecture Notes in Computer Science, 2004, , 1062-1069.	1.3	88
77	Morphological wetting transitions at chemically structured surfaces. Current Opinion in Colloid and Interface Science, 2001, 6, 40-48.	7.4	86
78	Charged giant unilamellar vesicles prepared by electroformation exhibit nanotubes and transbilayer lipid asymmetry. Scientific Reports, 2018, 8, 11838.	3.3	86
79	Bacterial twitching motility is coordinated by a two-dimensional tug-of-war with directional memory. Nature Communications, 2014, 5, 3759.	12.8	83
80	Adhesion of Membranes via Anchored Stickers. Physical Review Letters, 1996, 77, 1652-1655.	7.8	81
81	Wetting in random systems. Physical Review Letters, 1986, 56, 472-475.	7.8	80
82	Adhesion of membranes: a theoretical perspective. Langmuir, 1991, 7, 1867-1873.	3.5	79
83	Transition from Complete to Partial Wetting within Membrane Compartments. Journal of the American Chemical Society, 2008, 130, 12252-12253.	13.7	79
84	Patterns of Flexible Nanotubes Formed by Liquid-Ordered and Liquid-Disordered Membranes. ACS Nano, 2016, 10, 463-474.	14.6	79
85	Coupling of bending and stretching deformations in vesicle membranes. Advances in Colloid and Interface Science, 2014, 208, 14-24.	14.7	78
86	Multicomponent Order Parameter for Surface Melting. Physical Review Letters, 1989, 62, 913-916.	7.8	74
87	Driven Ratchets with Disordered Tracks. Physical Review Letters, 1997, 79, 2895-2898.	7.8	72
88	Cooperative wrapping of nanoparticles by membrane tubes. Soft Matter, 2014, 10, 3570.	2.7	72
89	Binding cooperativity of membrane adhesion receptors. Soft Matter, 2009, 5, 3354.	2.7	71
90	The role of membrane curvature for the wrapping of nanoparticles. Soft Matter, 2016, 12, 581-587.	2.7	71

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91	Behavior of Giant Vesicles with Anchored DNA Molecules. Biophysical Journal, 2007, 92, 4356-4368.	0.5	70
92	Shape fluctuations of polymerized or solidlike membranes. Physical Review Letters, 1990, 65, 2893-2896.	7.8	69
93	Dynamic pattern evolution on scale-free networks. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 10052-10057.	7.1	66
94	The computational route from bilayer membranes to vesicle fusion. Journal of Physics Condensed Matter, 2006, 18, S1191-S1219.	1.8	66
95	Autophagosome closure requires membrane scission. Autophagy, 2015, 11, 2134-2137.	9.1	66
96	Adhesion-induced phase behavior of multicomponent membranes. Physical Review E, 2001, 64, 011903.	2.1	65
97	Vesicles with multiple membrane domains. Soft Matter, 2011, 7, 6092.	2.7	65
98	Distinct Transport Regimes for Two Elastically Coupled Molecular Motors. Physical Review Letters, 2012, 108, 208101.	7.8	63
99	Asymmetric Ionic Conditions Generate Large Membrane Curvatures. Nano Letters, 2018, 18, 7816-7821.	9.1	63
100	Unusual Bifurcation of Renormalization-Group Fixed Points for Interfacial Transitions. Physical Review Letters, 1986, 57, 2411-2414.	7.8	61
101	Stability of Spherical Vesicles in Electric Fields. Langmuir, 2010, 26, 12390-12407.	3.5	60
102	Bilayer Membranes with Frequent Flip-Flops Have Tensionless Leaflets. Nano Letters, 2019, 19, 5011-5016.	9.1	60
103	Membrane curvature induced by polymers and colloids. Physica A: Statistical Mechanics and Its Applications, 1998, 249, 536-543.	2.6	59
104	Membrane Morphology Is Actively Transformed by Covalent Binding of the Protein Atg8 to PE-Lipids. PLoS ONE, 2014, 9, e115357.	2.5	58
105	Motility States of Molecular Motors Engaged inÂaÂStochastic Tug-of-War. Journal of Statistical Physics, 2008, 133, 1059-1081.	1.2	57
106	Nanoparticle Formation in Giant Vesicles: Synthesis in Biomimetic Compartments. Small, 2009, 5, 2033-2037.	10.0	57
107	Self-Organized Density Patterns of Molecular Motors in Arrays of Cytoskeletal Filaments. Biophysical Journal, 2005, 88, 3118-3132.	0.5	56
108	Membrane Nanotubes Increase the Robustness of Giant Vesicles. ACS Nano, 2018, 12, 4478-4485.	14.6	56

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109	Flexible membranes with anchored polymers. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1997, 128, 255-264.	4.7	55
110	Domains and rafts in membranes - hidden dimensions of selforganization. Journal of Biological Physics, 2002, 28, 195-210.	1.5	55
111	Stochastic simulations of cargo transport by processive molecular motors. Journal of Chemical Physics, 2009, 131, 245107.	3.0	55
112	Remodeling of membrane compartments: some consequences of membrane fluidity. Biological Chemistry, 2014, 395, 253-274.	2.5	54
113	Binding constants of membrane-anchored receptors and ligands: A general theory corroborated by Monte Carlo simulations. Journal of Chemical Physics, 2015, 143, 243136.	3.0	54
114	Curvature of Double-Membrane Organelles Generated by Changes in Membrane Size and Composition. PLoS ONE, 2012, 7, e32753.	2.5	54
115	Effect of ribosome shielding on mRNA stability. Physical Biology, 2013, 10, 046008.	1.8	52
116	Conformal degeneracy and conformal diffusion of vesicles. Physical Review Letters, 1993, 71, 452-455.	7.8	51
117	Active Diffusion of Motor Particles. Physical Review Letters, 2005, 95, 268102.	7.8	51
118	Melting at Grain Boundaries and Surfaces. Physical Review Letters, 1986, 57, 2876-2876.	7.8	50
119	Interface roughening in two-dimensional quasicrystals. Physical Review Letters, 1987, 59, 1679-1682.	7.8	50
120	Discontinuous Unbinding Transitions of Filament Bundles. Physical Review Letters, 2005, 95, 038102.	7.8	50
121	Intrinsic Contact Angle of Aqueous Phases at Membranes and Vesicles. Physical Review Letters, 2009, 103, 238103.	7.8	50
122	Chemomechanical Coupling of Molecular Motors: Thermodynamics, Network Representations, and Balance Conditions. Journal of Statistical Physics, 2008, 130, 39-67.	1.2	49
123	Importance of Polar Solvation and Configurational Entropy for Design of Antiretroviral Drugs Targeting HIV-1 Protease. Journal of Physical Chemistry B, 2013, 117, 5793-5805.	2.6	48
124	Molecular mechanics of coiled coils loaded in the shear geometry. Chemical Science, 2018, 9, 4610-4621.	7.4	48
125	Universal Aspects of the Chemomechanical Coupling for Molecular Motors. Physical Review Letters, 2000, 85, 4401-4404.	7.8	47
126	Renormalization of hydration forces by collective protrusion modes. Biophysical Chemistry, 1994, 49, 27-37.	2.8	46

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127	Simple sugars shape giant vesicles into multispheres with many membrane necks. Soft Matter, 2020, 16, 1246-1258.	2.7	46
128	Deducing the Kinetics of Protein Synthesis In Vivo from the Transition Rates Measured In Vitro. PLoS Computational Biology, 2014, 10, e1003909.	3.2	45
129	Membrane fluctuations and acidosis regulate cooperative binding of â€œmarker of selfâ€•CD47 with macrophage checkpoint receptor SIRPÍ±. Journal of Cell Science, 2018, 132, .	2.0	45
130	Liquid Bridges in Chemically Structured Slit Pores. Langmuir, 2001, 17, 3390-3399.	3.5	44
131	Vortex Behavior in High-TcSuperconductors with Disorder. Physical Review Letters, 1988, 61, 2508-2508.	7.8	43
132	Droplets, bubbles, and vesicles at chemically structured surfaces. Journal of Physics Condensed Matter, 2005, 17, S537-S558.	1.8	43
133	Wetting-Induced Budding of Vesicles in Contact with Several Aqueous Phases. Journal of Physical Chemistry B, 2012, 116, 1819-1823.	2.6	43
134	Random walks of molecular motors arising from diffusional encounters with immobilized filaments. Physical Review E, 2004, 69, 061911.	2.1	42
135	Stretched-exponential relaxation of birefringence in a critical binary mixture. Physical Review B, 1988, 38, 7223-7226.	3.2	41
136	Unbinding of symmetric and asymmetric stacks of membranes. Physical Review Letters, 1993, 71, 3596-3599.	7.8	41
137	Effects of the chemomechanical stepping cycle on the traffic of molecular motors. Physical Review E, 2008, 78, 041909.	2.1	41
138	Protein Synthesis in E. coli: Dependence of Codon-Specific Elongation on tRNA Concentration and Codon Usage. PLoS ONE, 2015, 10, e0134994.	2.5	41
139	Unbinding transitions and phase separation of multicomponent membranes. Physical Review E, 2000, 62, R45-R48.	2.1	40
140	Binding of Polymers to Calcite Crystals in Water:â€‰ Characterization by Isothermal Titration Calorimetry. Langmuir, 2003, 19, 6097-6103.	3.5	40
141	Stability of liquid channels or filaments in the presence of line tension. Journal of Physics Condensed Matter, 2005, 17, 2349-2364.	1.8	40
142	The Conserved ESCRT-III Machinery Participates in the Phagocytosis of Entamoeba histolytica. Frontiers in Cellular and Infection Microbiology, 2018, 8, 53.	3.9	40
143	Asymptotic properties of degree-correlated scale-free networks. Physical Review E, 2010, 81, 046103.	2.1	39
144	Mechanical Compressibility of the Glycosylphosphatidylinositol (GPI) Anchor Backbone Governed by Independent Glycosidic Linkages. Journal of the American Chemical Society, 2012, 134, 18964-18972.	13.7	39

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145	Complex Degradation Processes Lead to Non-Exponential Decay Patterns and Age-Dependent Decay Rates of Messenger RNA. PLoS ONE, 2013, 8, e55442.	2.5	39
146	Stable Patterns of Membrane Domains at Corrugated Substrates. Physical Review Letters, 2008, 100, 098103.	7.8	38
147	Cooperative behavior of molecular motors: Cargo transport and traffic phenomena. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 649-661.	2.7	38
148	Importance of Polar Solvation for Cross-Reactivity of Antibody and Its Variants with Steroids. Journal of Physical Chemistry B, 2011, 115, 7661-7669.	2.6	38
149	Lipid membranes in contact with aqueous phases of polymer solutions. Soft Matter, 2012, 8, 6409.	2.7	38
150	Adhesive Nanoparticles as Local Probes of Membrane Curvature. Nano Letters, 2015, 15, 7168-7173.	9.1	38
151	Remodeling of Membrane Shape and Topology by Curvature Elasticity and Membrane Tension. Advanced Biology, 2022, 6, e2101020.	2.5	38
152	Line Tension Effects for Liquid Droplets on Circular Surface Domains. Langmuir, 2006, 22, 11041-11059.	3.5	37
153	Novel Method for Measuring the Adhesion Energy of Vesicles. Langmuir, 2007, 23, 5423-5429.	3.5	37
154	Area Increase and Budding in Giant Vesicles Triggered by Light: Behind the Scene. Advanced Science, 2018, 5, 1800432.	11.2	37
155	Intermittent depolymerization of actin filaments is caused by photo-induced dimerization of actin protomers. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 10769-10774.	7.1	36
156	From bunches of membranes to bundles of strings. European Physical Journal B, 1995, 97, 193-203.	1.5	35
157	Membrane flow patterns in multicomponent giant vesicles induced by alternating electric fields. Soft Matter, 2008, 4, 2168.	2.7	34
158	Actin Polymerization and Depolymerization Coupled to Cooperative Hydrolysis. Physical Review Letters, 2009, 103, 048102.	7.8	34
159	Equilibrium Morphologies and Effective Spring Constants of Capillary Bridges. Langmuir, 2010, 26, 18734-18741.	3.5	34
160	Chemomechanical Coupling and Motor Cycles of Myosin V. Biophysical Journal, 2011, 100, 1747-1755.	0.5	34
161	Solution Asymmetry and Salt Expand Fluid-Fluid Coexistence Regions of Charged Membranes. Biophysical Journal, 2016, 110, 2581-2584.	0.5	34
162	Giant Vesicles Exposed to Aqueous Twoâ€Phase Systems: Membrane Wetting, Budding Processes, and Spontaneous Tubulation. Advanced Materials Interfaces, 2017, 4, 1600451.	3.7	34

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163	Stretching of buckled filaments by thermal fluctuations. Physical Review E, 2007, 76, 061914.	2.1	33
164	Polymorphism of vesicles with multi-domain patterns. Soft Matter, 2009, 5, 3303.	2.7	32
165	Droplet-induced budding transitions of membranes. Soft Matter, 2011, 7, 6914.	2.7	32
166	Uniform and Janus-like nanoparticles in contact with vesicles: energy landscapes and curvature-induced forces. Soft Matter, 2017, 13, 2155-2173.	2.7	32
167	Renormalized Interactions of Interfaces, Membranes and Polymers. Physica Scripta, 1989, T29, 259-264.	2.5	32
168	Equilibrium Crystal Shapes of Ideal and Random Quasicrystals. Physical Review Letters, 1988, 60, 2394-2397.	7.8	30
169	Asymmetric simple exclusion processes with diffusive bottlenecks. Physical Review E, 2004, 70, 066104.	2.1	30
170	Molecular motor traffic in a half-open tube. Journal of Physics Condensed Matter, 2005, 17, S3839-S3850.	1.8	30
171	Solvent-shared pairs of densely charged ions induce intense but short-range supra-additive slowdown of water rotation. Physical Chemistry Chemical Physics, 2016, 18, 1918-1930.	2.8	30
172	Structured Surfaces and Morphological Wetting Transitions. Journal of Materials Science, 2001, 9, 105-115.	1.2	29
173	ELECTROFUSION OF MODEL LIPID MEMBRANES VIEWED WITH HIGH TEMPORAL RESOLUTION. Biophysical Reviews and Letters, 2006, 01, 387-400.	0.8	29
174	Modulating Vesicle Adhesion by Electric Fields. Biophysical Journal, 2016, 111, 1454-1464.	0.5	29
175	Binding equilibrium and kinetics of membrane-anchored receptors and ligands in cell adhesion: Insights from computational model systems and theory. Cell Adhesion and Migration, 2016, 10, 576-589.	2.7	29
176	Parabolic Renormalization-Group Flow for Interfaces and Membranes. Physical Review Letters, 1989, 62, 704-707.	7.8	28
177	Line Tension and Stability of Domains in Cell-Adhesion Zones Mediated by Long and Short Receptor-Ligand Complexes. PLoS ONE, 2011, 6, e23284.	2.5	28
178	Molecular Motor Cycles: From Ratchets to Networks. Journal of Statistical Physics, 2003, 110, 1141-1167.	1.2	27
179	Nucleation through a Double Barrier on a Chemically Patterned Substrate. Langmuir, 2004, 20, 1986-1996.	3.5	27
180	Binding kinetics of membrane-anchored receptors and ligands: Molecular dynamics simulations and theory. Journal of Chemical Physics, 2015, 143, 243137.	3.0	27

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181	MaxSynBio: Wege zur Synthese einer Zelle aus nicht lebenden Komponenten. Angewandte Chemie, 2018, 130, 13566-13577.	2.0	27
182	Perforated Wetting Layers from Periodic Patterns of Lyophobic Surface Domains. Langmuir, 2001, 17, 7814-7822.	3.5	26
183	Effect of cytochrome c on the phase behavior of charged multicomponent lipid membranes. Biochimica Et Biophysica Acta - Biomembranes, 2014, 1838, 2036-2045.	2.6	26
184	Wetting, budding, and fusionâ€"morphological transitions of soft surfaces. Journal of Physics Condensed Matter, 2005, 17, S2885-S2902.	1.8	25
185	Temperature dependence of vesicle adhesion. Physical Review E, 2005, 71, 011903.	2.1	25
186	Adhesion of Membranes with Active Stickers. Physical Review Letters, 2006, 96, 048101.	7.8	25
187	Nanodroplets at Membranes Create Tight-Lipped Membrane Necks via Negative Line Tension. ACS Nano, 2018, 12, 12424-12435.	14.6	25
188	Spherical Nanovesicles Transform into a Multitude of Nonspherical Shapes. Nano Letters, 2019, 19, 7703-7711.	9.1	25
189	Directed Growth of Biomimetic Microcompartments. Advanced Biology, 2019, 3, e1800314.	3.0	25
190	Free fluid vesicles are not exactly spherical. Physical Review E, 2005, 71, 051602.	2.1	24
191	Cooperative Slowdown of Water Rotation near Densely Charged Ions Is Intense but Short-Ranged. Journal of Physical Chemistry B, 2013, 117, 10556-10566.	2.6	24
192	External forces influence the elastic coupling effects during cargo transport by molecular motors. Physical Review E, 2015, 91, 022701.	2.1	24
193	Viscoelasticity of Poly(ethylene glycol) Solutions on Supported Lipid Bilayers via Quartz Crystal Microbalance with Dissipation. Macromolecules, 2015, 48, 1824-1831.	4.8	24
194	Membrane curvature generated by asymmetric depletion layers of ions, small molecules, and nanoparticles. Journal of Chemical Physics, 2016, 145, 074117.	3.0	24
195	Lipids with bulky head groups generate large membrane curvatures by small compositional asymmetries. Journal of Chemical Physics, 2018, 149, 084901.	3.0	24
196	Optimizing the dynamics of protein expression. Scientific Reports, 2019, 9, 7511.	3.3	24
197	Movements of molecular motors: Ratchets, random walks and traffic phenomena. Physica E: Low-Dimensional Systems and Nanostructures, 2005, 29, 380-389.	2.7	23
198	Traffic by multiple species of molecular motors. Physical Review E, 2009, 80, 041928.	2.1	23

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