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	Superâ€Resolution Imaging of Highly Curved Membrane Structures in Giant Vesicles Encapsulating Molecular Condensates. Advanced Materials, 2022, 34, e2106633.	21.0	19
2	Multispherical shapes of vesicles highlight the curvature elasticity of biomembranes. Advances in Colloid and Interface Science, 2022, 301, 102613.	14.7	19
3	Remodeling of Membrane Shape and Topology by Curvature Elasticity and Membrane Tension. Advanced Biology, 2022, 6, e2101020.	2.5	38
4	Integrin Î±_{IIb}Î²₃ Activation and Clustering in Minimal Synthetic Cells. Advanced NanoBiomed Research, 2022, 2, .	3.6	3
5	Active shape oscillations of giant vesicles with cyclic closure and opening of membrane necks. Soft Matter, 2021, 17, 319-330.	2.7	20
6	Introduction to remodeling of biomembranes. Soft Matter, 2021, 17, 214-221.	2.7	14
7	Budding and Fission of Nanovesicles Induced by Membrane Adsorption of Small Solutes. ACS Nano, 2021, 15, 7237-7248.	14.6	19
8	En route to dynamic life processes by SNARE-mediated fusion of polymer and hybrid membranes. Nature Communications, 2021, 12, 4972.	12.8	21
9	Structural variability and concerted motions of the T cell receptor â€“ CD3 complex. ELife, 2021, 10, .	6.0	7
10	Superelasticity of Plasmaâ€•and Synthetic Membranes Resulting from Coupling of Membrane Asymmetry, Curvature, and Lipid Sorting. Advanced Science, 2021, 8, e2102109.	11.2	19
11	Simple sugars shape giant vesicles into multispheres with many membrane necks. Soft Matter, 2020, 16, 1246-1258.	2.7	46
12	Collective Force Generation by Molecular Motors Is Determined by Strain-Induced Unbinding. Nano Letters, 2020, 20, 669-676.	9.1	13
13	Unfolding mechanism and free energy landscape of single, stable, alpha helices at low pull speeds. Soft Matter, 2020, 16, 9917-9928.	2.7	6
14	Programming multi-protein assembly by gene-brush patterns and two-dimensional compartment geometry. Nature Nanotechnology, 2020, 15, 783-791.	31.5	19
15	Coarse-Grained Molecular Model for the Glycosylphosphatidylinositol Anchor with and without Protein. Journal of Chemical Theory and Computation, 2020, 16, 3889-3903.	5.3	10
16	Controlled division of cell-sized vesicles by low densities of membrane-bound proteins. Nature Communications, 2020, 11, 905.	12.8	143
17	Mechanical Tension of Biomembranes Can Be Measured by Super Resolution (STED) Microscopy of Force-Induced Nanotubes. Nano Letters, 2020, 20, 3185-3191.	9.1	21
18	Spherical Nanovesicles Transform into a Multitude of Nonspherical Shapes. Nano Letters, 2019, 19, 7703-7711.	9.1	25

#	Article	IF	Citations
19	Interaction of SNARE Mimetic Peptides with Lipid bilayers: Effects of Secondary Structure, Bilayer Composition and Lipid Anchoring. Scientific Reports, 2019, 9, 7708.	3.3	9
20	Optimizing the dynamics of protein expression. Scientific Reports, 2019, 9, 7511.	3.3	24
21	Bilayer Membranes with Frequent Flip-Flops Have Tensionless Leaflets. Nano Letters, 2019, 19, 5011-5016.	9.1	60
22	Giant Vesicles Encapsulating Aqueous Two-Phase Systems: From Phase Diagrams to Membrane Shape Transformations. Frontiers in Chemistry, 2019, 7, 213.	3.6	18
23	Force-Dependent Unbinding Rate of Molecular Motors from Stationary Optical Trap Data. Nano Letters, 2019, 19, 2598-2602.	9.1	17
24	Force sharing and force generation by two teams of elastically coupled molecular motors. Scientific Reports, 2019, 9, 454.	3.3	9
25	Directed Growth of Biomimetic Microcompartments. Advanced Biology, 2019, 3, e1800314.	3.0	25
26	Understanding and controlling the morphological complexity of biomembranes. Advances in Biomembranes and Lipid Self-Assembly, 2019, , 105-157.	0.6	6
27	Understanding giant vesicles: A theoretical perspective. , 2019, , 73-168.		11
28	Particleâ€“membrane interactions. , 2019, , 211-227.		0
29	Molecular mechanics of coiled coils loaded in the shear geometry. Chemical Science, 2018, 9, 4610-4621.	7.4	48
30	Membrane Nanotubes Increase the Robustness of Giant Vesicles. ACS Nano, 2018, 12, 4478-4485.	14.6	56
31	Super Resolution Imaging of Highly Curved Membrane Structures in Giant Unilamellar Vesicles Encapsulating Polymer Solutions. Biophysical Journal, 2018, 114, 100a-101a.	0.5	1
32	Response of Membranes and Vesicles to Capillary Forces Arising from Aqueous Two-Phase Systems and Water-in-Water Droplets. Journal of Physical Chemistry B, 2018, 122, 3572-3586.	2.6	18
33	Sequential bottom-up assembly of mechanically stabilized synthetic cells by microfluidics. Nature Materials, 2018, 17, 89-96.	27.5	314
34	A molecular dynamics model for glycosylphosphatidyl-inositol anchors: â€œflop downâ€•or â€œlollipopâ€?. Physical Chemistry Chemical Physics, 2018, 20, 29314-29324.	2.8	11
35	Trimeric coiled coils expand the range of strength, toughness and dynamics of coiled coil motifs under shear. Physical Chemistry Chemical Physics, 2018, 20, 29105-29115.	2.8	11
36	Asymmetric Ionic Conditions Generate Large Membrane Curvatures. Nano Letters, 2018, 18, 7816-7821.	9.1	63

#	Article	IF	Citations
37	Understanding Membranes and Vesicles: A Personal Recollection of the Last Two Decades. , 2018, , 3-44.		4
38	Nanodroplets at Membranes Create Tight-Lipped Membrane Necks via Negative Line Tension. ACS Nano, 2018, 12, 12424-12435.	14.6	25
39	Domes and cones: Adhesion-induced fission of membranes by ESCRT proteins. PLoS Computational Biology, 2018, 14, e1006422.	3.2	19
40	Presynaptic Biogenesis Requires Axonal Transport of Lysosome-Related Vesicles. Neuron, 2018, 99, 1216-1232.e7.	8.1	109
41	MaxSynBio: Wege zur Synthese einer Zelle aus nicht lebenden Komponenten. Angewandte Chemie, 2018, 130, 13566-13577.	2.0	27
42	Membrane fluctuations and acidosis regulate cooperative binding of â€œmarker of selfâ€•CD47 with macrophage checkpoint receptor SIRPÎ±. Journal of Cell Science, 2018, 132, .	2.0	45
43	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
44	The 2018 biomembrane curvature and remodeling roadmap. Journal Physics D: Applied Physics, 2018, 51, 343001.	2.8	212
45	The Conserved ESCRT-III Machinery Participates in the Phagocytosis of Entamoeba histolytica. Frontiers in Cellular and Infection Microbiology, 2018, 8, 53.	3.9	40
46	MaxSynBio: Avenues Towards Creating Cells from the Bottom Up. Angewandte Chemie - International Edition, 2018, 57, 13382-13392.	13.8	234
47	Lipids with bulky head groups generate large membrane curvatures by small compositional asymmetries. Journal of Chemical Physics, 2018, 149, 084901.	3.0	24
48	Decomposition of time-dependent fluorescence signals reveals codon-specific kinetics of protein synthesis. Nucleic Acids Research, 2018, 46, e130-e130.	14.5	8
49	Charged giant unilamellar vesicles prepared by electroformation exhibit nanotubes and transbilayer lipid asymmetry. Scientific Reports, 2018, 8, 11838.	3.3	86
50	Area Increase and Budding in Giant Vesicles Triggered by Light: Behind the Scene. Advanced Science, 2018, 5, 1800432.	11.2	37
51	Uniform and Janus-like nanoparticles in contact with vesicles: energy landscapes and curvature-induced forces. Soft Matter, 2017, 13, 2155-2173.	2.7	32
52	Tug-of-war between two elastically coupled molecular motors: a case study on force generation and force balance. Soft Matter, 2017, 13, 328-344.	2.7	11
53	Giant Vesicles Exposed to Aqueous Twoâ€Phase Systems: Membrane Wetting, Budding Processes, and Spontaneous Tubulation. Advanced Materials Interfaces, 2017, 4, 1600451.	3.7	34
54	Membrane curvature generated by asymmetric depletion layers of ions, small molecules, and nanoparticles. Journal of Chemical Physics, 2016, 145, 074117.	3.0	24

#	Article	IF	Citations
55	Photosensitive Peptidomimetic for Light-Controlled, Reversible DNA Compaction. Biomacromolecules, 2016, 17, 1959-1968.	5.4	14
56	Molar mass fractionation in aqueous two-phase polymer solutions of dextran and poly(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 7	3.7	22
57	Modulating Vesicle Adhesion by Electric Fields. Biophysical Journal, 2016, 111, 1454-1464.	0.5	29
58	Stabilization of membrane necks by adhesive particles, substrate surfaces, and constriction forces. Soft Matter, 2016, 12, 8155-8166.	2.7	20
59	Solution Asymmetry and Salt Expand Fluid-Fluid Coexistence Regions of Charged Membranes. Biophysical Journal, 2016, 110, 2581-2584.	0.5	34
60	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
61	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
62	Patterns of Flexible Nanotubes Formed by Liquid-Ordered and Liquid-Disordered Membranes. ACS Nano, 2016, 10, 463-474.	14.6	79
63	The role of membrane curvature for the wrapping of nanoparticles. Soft Matter, 2016, 12, 581-587.	2.7	71
64	Binding kinetics of membrane-anchored receptors and ligands: Molecular dynamics simulations and theory. Journal of Chemical Physics, 2015, 143, 243137.	3.0	27
65	Association-dissociation process with aging subunits: Recursive solution. Physical Review E, 2015, 92, 052137.	2.1	1
66	Cell rigidity and shape override CD47â€™s â€œselfâ€•signaling in phagocytosis by hyperactivating myosin-II. Blood, 2015, 125, 542-552.	1.4	122
67	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
68	Protein Synthesis in E. coli: Dependence of Codon-Specific Elongation on tRNA Concentration and Codon Usage. PLoS ONE, 2015, 10, e0134994.	2.5	41
69	External forces influence the elastic coupling effects during cargo transport by molecular motors. Physical Review E, 2015, 91, 022701.	2.1	24
70	Viscoelasticity of Poly(ethylene glycol) Solutions on Supported Lipid Bilayers via Quartz Crystal Microbalance with Dissipation. Macromolecules, 2015, 48, 1824-1831.	4.8	24
71	Critical Particle Sizes for the Engulfment of Nanoparticles by Membranes and Vesicles with Bilayer Asymmetry. ACS Nano, 2015, 9, 3704-3720.	14.6	148
72	Adhesive Nanoparticles as Local Probes of Membrane Curvature. Nano Letters, 2015, 15, 7168-7173.	9.1	38

#	Article	IF	Citations
73	Spontaneous curvature of bilayer membranes from molecular simulations: Asymmetric lipid densities and asymmetric adsorption. Journal of Chemical Physics, 2015, 142, 054101.	3.0	97
74	Autophagosome closure requires membrane scission. Autophagy, 2015, 11, 2134-2137.	9.1	66
75	Molecular Motors: Cooperative Phenomena of Multiple Molecular Motors. , 2015, , 27-61.		14
76	Deducing the Kinetics of Protein Synthesis In Vivo from the Transition Rates Measured In Vitro. PLoS Computational Biology, 2014, 10, e1003909.	3.2	45
77	Remodeling of membrane compartments: some consequences of membrane fluidity. Biological Chemistry, 2014, 395, 253-274.	2.5	54
78	Wrapping of nanoparticles by membranes. Advances in Colloid and Interface Science, 2014, 208, 214-224.	14.7	186
79	Allosteric control of kinesin's motor domain by tubulin: a molecular dynamics study. Physical Chemistry Chemical Physics, 2014, 16, 6189.	2.8	11
80	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
81	Conformational Diversity of O-Antigen Polysaccharides of the Gram-Negative Bacterium Shigella flexneri Serotype Y. Journal of Physical Chemistry B, 2014, 118, 2523-2534.	2.6	18
82	Bacterial twitching motility is coordinated by a two-dimensional tug-of-war with directional memory. Nature Communications, 2014, 5, 3759.	12.8	83
83	Cooperative wrapping of nanoparticles by membrane tubes. Soft Matter, 2014, 10, 3570.	2.7	72
84	Coupling of bending and stretching deformations in vesicle membranes. Advances in Colloid and Interface Science, 2014, 208, 14-24.	14.7	78
85	Membrane Morphology Is Actively Transformed by Covalent Binding of the Protein Atg8 to PE-Lipids. PLoS ONE, 2014, 9, e115357.	2.5	58
86	Elastic Coupling Effects in Cooperative Transport by a Pair of Molecular Motors. Cellular and Molecular Bioengineering, 2013, 6, 48-64.	2.1	20
87	Spontaneous tubulation of membranes and vesicles reveals membrane tension generated by spontaneous curvature. Faraday Discussions, 2013, 161, 305-331.	3.2	241
88	Effect of ribosome shielding on mRNA stability. Physical Biology, 2013, 10, 046008.	1.8	52
89	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
90	Domain formation in cholesterolâ€“phospholipid membranes exposed to adhesive surfaces or environments. Soft Matter, 2013, 9, 8438.	2.7	22

#	Article	IF	Citations
91	Effect of tension and curvature on the chemical potential of lipids in lipid aggregates. Physical Chemistry Chemical Physics, 2013, 15, 876-881.	2.8	19
92	Network Complexity and Parametric Simplicity for Cargo Transport by Two Molecular Motors. Journal of Statistical Physics, 2013, 150, 205-234.	1.2	14
93	Bifurcation of Velocity Distributions in Cooperative Transport of Filaments by Fast and Slow Motors. Biophysical Journal, 2013, 104, 666-676.	0.5	10
94	Phase Diagram and Tie-Line Determination for the Ternary Mixture DOPC/eSM/Cholesterol. Biophysical Journal, 2013, 104, 1456-1464.	0.5	97
95	Standard Gibbs energies of formation and equilibrium constants from ab-initio calculations: Covalent dimerization of NO2 and synthesis of NH3. Journal of Chemical Thermodynamics, 2013, 62, 211-221.	2.0	6
96	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
97	On Phosphate Release in Actin Filaments. Biophysical Journal, 2013, 104, 2778-2779.	0.5	4
98	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
99	Adhesion-Induced Phase Behavior of Two-Component Membranes and Vesicles. International Journal of Molecular Sciences, 2013, 14, 2203-2229.	4.1	9
100	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
101	Dwell Time Distributions of the Molecular Motor Myosin V. PLoS ONE, 2013, 8, e55366.	2.5	7
102	Tubulation and Aggregation of Spherical Nanoparticles Adsorbed on Vesicles. Physical Review Letters, 2012, 109, 188102.	7.8	144
103	Wetting-Induced Budding of Vesicles in Contact with Several Aqueous Phases. Journal of Physical Chemistry B, 2012, 116, 1819-1823.	2.6	43
104	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
105	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
106	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
107	Distinct Transport Regimes for Two Elastically Coupled Molecular Motors. Physical Review Letters, 2012, 108, 208101.	7.8	63
108	Critical Motor Number for Fractional Steps of Cytoskeletal Filaments in Gliding Assays. PLoS ONE, 2012, 7, e43219.	2.5	6

#	Article	IF	Citations
109	Lipid membranes in contact with aqueous phases of polymer solutions. Soft Matter, 2012, 8, 6409.	2.7	38
110	Curvature of Double-Membrane Organelles Generated by Changes in Membrane Size and Composition. PLoS ONE, 2012, 7, e32753.	2.5	54
111	Droplet-induced budding transitions of membranes. Soft Matter, 2011, 7, 6914.	2.7	32
112	Vesicles with multiple membrane domains. Soft Matter, 2011, 7, 6092.	2.7	65
113	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
114	Chemomechanical Coupling and Motor Cycles of Myosin V. Biophysical Journal, 2011, 100, 1747-1755.	0.5	34
115	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
116	Co-operative transport by molecular motors. Biochemical Society Transactions, 2011, 39, 1211-1215.	3.4	23
117	Translation by Ribosomes with mRNA Degradation: Exclusion Processes on Aging Tracks. Journal of Statistical Physics, 2011, 145, 1385-1404.	1.2	19
118	Length-dependent translation of messenger RNA by ribosomes. Physical Review E, 2011, 83, 042903.	2.1	21
119	Sequences of phase transitions in Ising models on correlated networks. Physical Review E, 2011, 83, 061129.	2.1	4
120	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
121	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
122	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
123	Interactions of Alkali Metal Chlorides with Phosphatidylcholine Vesicles. Langmuir, 2010, 26, 18951-18958.	3.5	120
124	Impact of Slip Cycles on the Operation Modes andÂEfficiency of Molecular Motors. Journal of Statistical Physics, 2010, 141, 1-16.	1.2	12
125	Cooperative behavior of molecular motors: Cargo transport and traffic phenomena. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 649-661.	2.7	38
126	Asymptotic properties of degree-correlated scale-free networks. Physical Review E, 2010, 81, 046103.	2.1	39

#	Article	IF	Citations
127	Treadmilling of actin filaments via Brownian dynamics simulations. Journal of Chemical Physics, 2010, 133, 155105.	3.0	12
128	Bidirectional Transport by Molecular Motors: Enhanced Processivity and Response to External Forces. Biophysical Journal, 2010, 98, 2610-2618.	0.5	99
129	Morphological Wetting Transitions at Ring-Shaped Surface Domains. Langmuir, 2010, 26, 11878-11885.	3.5	19
130	Stability of Spherical Vesicles in Electric Fields. Langmuir, 2010, 26, 12390-12407.	3.5	60
131	Equilibrium Morphologies and Effective Spring Constants of Capillary Bridges. Langmuir, 2010, 26, 18734-18741.	3.5	34
132	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
133	Fusion-Relevant Changes in Lipid Shape of Hydrated Cholesterol Hemisuccinate Induced by pH and Counterion Species. Journal of Physical Chemistry B, 2010, 114, 14941-14946.	2.6	12
134	Semiflexible polymer rings on topographically and chemically structured surfaces. Soft Matter, 2010, 6, 5461.	2.7	6
135	Modelling semiflexible polymers: shape analysis, buckling instabilities, and force generation. Soft Matter, 2010, 6, 5764.	2.7	13
136	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
137	Traffic by multiple species of molecular motors. Physical Review E, 2009, 80, 041928.	2.1	23
138	Actin Polymerization and Depolymerization Coupled to Cooperative Hydrolysis. Physical Review Letters, 2009, 103, 048102.	7.8	34
139	Intrinsic Contact Angle of Aqueous Phases at Membranes and Vesicles. Physical Review Letters, 2009, 103, 238103.	7.8	50
140	Adhesion of surfaces via particle adsorption: exact results for a lattice of fluid columns. Journal of Statistical Mechanics: Theory and Experiment, 2009, 2009, P11006.	2.3	1
141	Self-assembly of actin monomers into long filaments: Brownian dynamics simulations. Journal of Chemical Physics, 2009, 131, 015102.	3.0	18
142	Stochastic simulations of cargo transport by processive molecular motors. Journal of Chemical Physics, 2009, 131, 245107.	3.0	55
143	Dissipative particle dynamics of tension-induced membrane fusion. Molecular Simulation, 2009, 35, 554-560.	2.0	13
144	Editorial: "ACTIVE BIOMIMETIC SYSTEMS: FORCE GENERATION AND CARGO TRANSPORT BY MOLECULAR MACHINES". Biophysical Reviews and Letters, 2009, 04, 1-4.	0.8	4

#	Article	IF	Citations
145	ACTIVE BIO-SYSTEMS: FROM SINGLE MOTOR MOLECULES TO COOPERATIVE CARGO TRANSPORT. Biophysical Reviews and Letters, 2009, 04, 77-137.	0.8	12
146	Transport by Molecular Motors in the Presence of Static Defects. Journal of Statistical Physics, 2009, 135, 241-260.	1.2	18
147	Energy Conversion by Molecular Motors Coupled toÂNucleotide Hydrolysis. Journal of Statistical Physics, 2009, 135, 951-975.	1.2	23
148	Nanoparticle Formation in Giant Vesicles: Synthesis in Biomimetic Compartments. Small, 2009, 5, 2033-2037.	10.0	57
149	Morphological Transitions of Liquid Droplets on Circular Surface Domains. Langmuir, 2009, 25, 13493-13502.	3.5	8
150	The Fusion of Membranes and Vesicles: Pathway and Energy Barriers from Dissipative Particle Dynamics. Biophysical Journal, 2009, 96, 2658-2675.	0.5	160
151	Adhesion of membranes via receptorâ€“ligand complexes: Domain formation, binding cooperativity, and active processes. Soft Matter, 2009, 5, 3213.	2.7	92
152	Vesicles in electric fields: Some novel aspects of membrane behavior. Soft Matter, 2009, 5, 3201.	2.7	155
153	Binding cooperativity of membrane adhesion receptors. Soft Matter, 2009, 5, 3354.	2.7	71
154	Polymorphism of vesicles with multi-domain patterns. Soft Matter, 2009, 5, 3303.	2.7	32
155	Self-assembling network and bundle structures in systems of rods and crosslinkers â€“ A Monte Carlo study. Soft Matter, 2009, 5, 1504.	2.7	16
156	Traffic by Small Teams of Molecular Motors. , 2009, , 695-700.		0
157	Chemomechanical Coupling of Molecular Motors: Thermodynamics, Network Representations, and Balance Conditions. Journal of Statistical Physics, 2008, 130, 39-67.	1.2	49
158	Motility States of Molecular Motors Engaged inÂaÂStochastic Tug-of-War. Journal of Statistical Physics, 2008, 133, 1059-1081.	1.2	57
159	Transport of Beads by Several Kinesin Motors. Biophysical Journal, 2008, 94, 532-541.	0.5	177
160	Morphological Transitions of Vesicles Induced by Alternating Electric Fields. Biophysical Journal, 2008, 95, L19-L21.	0.5	92
161	Tension-induced vesicle fusion: pathways and pore dynamics. Soft Matter, 2008, 4, 1208.	2.7	92
162	Membrane flow patterns in multicomponent giant vesicles induced by alternating electric fields. Soft Matter, 2008, 4, 2168.	2.7	34

#	Article	IF	Citations
163	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
164	Transition from Complete to Partial Wetting within Membrane Compartments. Journal of the American Chemical Society, 2008, 130, 12252-12253.	13.7	79
165	Effects of the chemomechanical stepping cycle on the traffic of molecular motors. Physical Review E, 2008, 78, 041909.	2.1	41
166	Stable Patterns of Membrane Domains at Corrugated Substrates. Physical Review Letters, 2008, 100, 098103.	7.8	38
167	Activity patterns on random scale-free networks: global dynamics arising from local majority rules. Journal of Statistical Mechanics: Theory and Experiment, 2007, 2007, P01009-P01009.	2.3	4
168	Pathway of Membrane Fusion with Two Tension-Dependent Energy Barriers. Physical Review Letters, 2007, 98, 218101.	7.8	158
169	Stretching of buckled filaments by thermal fluctuations. Physical Review E, 2007, 76, 061914.	2.1	33
170	Kinesinâ€™s Network of Chemomechanical Motor Cycles. Physical Review Letters, 2007, 98, 258102.	7.8	166
171	VISUALIZING SOFT MATTER: MESOSCOPIC SIMULATIONS OF MEMBRANES, VESICLES AND NANOPARTICLES. Biophysical Reviews and Letters, 2007, 02, 33-55.	0.8	20
172	Improved dissipative particle dynamics simulations of lipid bilayers. Journal of Chemical Physics, 2007, 126, 015101.	3.0	95
173	Giant vesicles in electric fields. Soft Matter, 2007, 3, 817.	2.7	201
174	Conformational Diversity of the Fibrillogenic Fusion Peptide B18 in Different Environments from Molecular Dynamics Simulations. Journal of Physical Chemistry B, 2007, 111, 4161-4170.	2.6	16
175	Novel Method for Measuring the Adhesion Energy of Vesicles. Langmuir, 2007, 23, 5423-5429.	3.5	37
176	Behavior of Giant Vesicles with Anchored DNA Molecules. Biophysical Journal, 2007, 92, 4356-4368.	0.5	70
177	Cooperative Behaviour of Semiflexible Polymers and Filaments. , 2007, , 239-249.		3
178	Traffic of Molecular Motors. , 2007, , 251-261.		4
179	Novel Low-Density Structure for Hard Rods with Adhesive End Groups. Macromolecules, 2006, 39, 7138-7143.	4.8	13
180	Enhanced Ordering of Interacting Filaments by Molecular Motors. Physical Review Letters, 2006, 96, 258103.	7.8	94

#	Article	IF	Citations
181	The computational route from bilayer membranes to vesicle fusion. Journal of Physics Condensed Matter, 2006, 18, S1191-S1219.	1.8	66
182	Line Tension Effects for Liquid Droplets on Circular Surface Domains. Langmuir, 2006, 22, 11041-11059.	3.5	37
183	Chapter 4 Membrane Adhesion and Domain Formation. Behavior Research Methods, 2006, , 63-127.	4.0	14
184	Molecular motor traffic: From biological nanomachines to macroscopic transport. Physica A: Statistical Mechanics and Its Applications, 2006, 372, 34-51.	2.6	94
185	FILAMENT ORDERING AND CLUSTERING BY MOLECULAR MOTORS IN MOTILITY ASSAYS. Biophysical Reviews and Letters, 2006, 01, 363-374.	0.8	3
186	ELECTROFUSION OF MODEL LIPID MEMBRANES VIEWED WITH HIGH TEMPORAL RESOLUTION. Biophysical Reviews and Letters, 2006, 01, 387-400.	0.8	29
187	COOPERATIVE TRANSPORT BY SMALL TEAMS OF MOLECULAR MOTORS. Biophysical Reviews and Letters, 2006, 01, 353-361.	0.8	4
188	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
189	Adhesion of membranes via switchable molecules. Physical Review E, 2006, 73, 061908.	2.1	12
190	Adhesion of Membranes with Active Stickers. Physical Review Letters, 2006, 96, 048101.	7.8	25
191	Publisherâ€™s Note: Adhesion of Membranes with Active Stickers [Phys. Rev. Lett.96, 048101 (2006)]. Physical Review Letters, 2006, 96, .	7.8	0
192	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
193	Buckling, Bundling, and Pattern Formation: From Semi-Flexible Polymers to Assemblies of Interacting Filaments. Journal of Computational and Theoretical Nanoscience, 2006, 3, 898-911.	0.4	10
194	Walks of molecular motors interacting with immobilized filaments. Physica A: Statistical Mechanics and Its Applications, 2005, 350, 122-130.	2.6	4
195	â€˜Life is motionâ€™: multiscale motility of molecular motors. Physica A: Statistical Mechanics and Its Applications, 2005, 352, 53-112.	2.6	90
196	Movements of molecular motors: Ratchets, random walks and traffic phenomena. Physica E: Low-Dimensional Systems and Nanostructures, 2005, 29, 380-389.	2.7	23
197	Tension-induced fusion of bilayer membranes and vesicles. Nature Materials, 2005, 4, 225-228.	27.5	369
198	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

#	Article	IF	Citations
199	Droplets, bubbles, and vesicles at chemically structured surfaces. Journal of Physics Condensed Matter, 2005, 17, S537-S558.	1.8	43
200	Molecular motor traffic in a half-open tube. Journal of Physics Condensed Matter, 2005, 17, S3839-S3850.	1.8	30
201	Wetting, budding, and fusionâ€"morphological transitions of soft surfaces. Journal of Physics Condensed Matter, 2005, 17, S2885-S2902.	1.8	25
202	Duality mapping and unbinding transitions of semiflexible and directed polymers. Journal of Physics A, 2005, 38, L155-L161.	1.6	14
203	Stability of liquid channels or filaments in the presence of line tension. Journal of Physics Condensed Matter, 2005, 17, 2349-2364.	1.8	40
204	Discontinuous Unbinding Transitions of Filament Bundles. Physical Review Letters, 2005, 95, 038102.	7.8	50
205	Temperature dependence of vesicle adhesion. Physical Review E, 2005, 71, 011903.	2.1	25
206	Free fluid vesicles are not exactly spherical. Physical Review E, 2005, 71, 051602.	2.1	24
207	Active Diffusion of Motor Particles. Physical Review Letters, 2005, 95, 268102.	7.8	51
208	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
209	The influence of non-anchored polymers on the curvature of vesicles. Molecular Physics, 2005, 103, 3169-3183.	1.7	12
210	Dissipative Particle Dynamics Simulations of Polymersomes. Journal of Physical Chemistry B, 2005, 109, 17708-17714.	2.6	185
211	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
212	Self-Organized Density Patterns of Molecular Motors in Arrays of Cytoskeletal Filaments. Biophysical Journal, 2005, 88, 3118-3132.	0.5	56
213	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
214	Asymmetric simple exclusion processes with diffusive bottlenecks. Physical Review E, 2004, 70, 066104.	2.1	30
215	Random walks of molecular motors arising from diffusional encounters with immobilized filaments. Physical Review E, 2004, 69, 061911.	2.1	42
216	Pictures from the twilight zone. Nature Materials, 2004, 3, 589-591.	27.5	10

#	Article	IF	Citations
217	Nucleation through a Double Barrier on a Chemically Patterned Substrate. Langmuir, 2004, 20, 1986-1996.	3.5	27
218	Pattern Formation during T-Cell Adhesion. Biophysical Journal, 2004, 87, 3665-3678.	0.5	117
219	Traffic of Molecular Motors Through Tube-Like Compartments. Journal of Statistical Physics, 2003, 113, 233-268.	1.2	193
220	Molecular Motor Cycles: From Ratchets to Networks. Journal of Statistical Physics, 2003, 110, 1141-1167.	1.2	27
221	Binding of Polymers to Calcite Crystals in Water:â€‰ Characterization by Isothermal Titration Calorimetry. Langmuir, 2003, 19, 6097-6103.	3.5	40
222	Domains in membranes and vesicles. Journal of Physics Condensed Matter, 2003, 15, S31-S45.	1.8	114
223	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
224	Wetting morphologies on substrates with striped surface domains. Journal of Applied Physics, 2002, 92, 4296-4306.	2.5	174
225	Domains and rafts in membranes - hidden dimensions of selforganization. Journal of Biological Physics, 2002, 28, 195-210.	1.5	55
226	Liquid Bridges in Chemically Structured Slit Pores. Langmuir, 2001, 17, 3390-3399.	3.5	44
227	Perforated Wetting Layers from Periodic Patterns of Lyophobic Surface Domains. Langmuir, 2001, 17, 7814-7822.	3.5	26
228	Morphological wetting transitions at chemically structured surfaces. Current Opinion in Colloid and Interface Science, 2001, 6, 40-48.	7.4	86
229	Structured Surfaces and Morphological Wetting Transitions. Journal of Materials Science, 2001, 9, 105-115.	1.2	29
230	Budding Dynamics of Multicomponent Membranes. Physical Review Letters, 2001, 86, 3911-3914.	7.8	181
231	Random Walks of Cytoskeletal Motors in Open and Closed Compartments. Physical Review Letters, 2001, 87, 108101.	7.8	240
232	Adhesion-induced phase behavior of multicomponent membranes. Physical Review E, 2001, 64, 011903.	2.1	65
233	Wetting and dewetting of structured and imprinted surfaces. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2000, 161, 3-22.	4.7	97
234	Molecular motors and nonuniform ratchets. European Biophysics Journal, 2000, 29, 542-548.	2.2	11

#	Article	IF	Citations
235	Universal Aspects of the Chemomechanical Coupling for Molecular Motors. Physical Review Letters, 2000, 85, 4401-4404.	7.8	47
236	Unbinding transitions and phase separation of multicomponent membranes. Physical Review E, 2000, 62, R45-R48.	2.1	40
237	Molecular Motors and Stochastic Models. , 2000, , 21-31.		7
238	Local Adhesion of Membranes to Striped Surface Domains. Langmuir, 2000, 16, 9338-9346.	3.5	14
239	From membranes to membrane machines. , 1999, , 1-23.		5
240	Spontaneous curvature of fluid vesicles induced by trans-bilayer sugar asymmetry. European Biophysics Journal, 1999, 28, 174-178.	2.2	110
241	Liquid Morphologies on Structured Surfaces: From Microchannels to Microchips. Science, 1999, 283, 46-49.	12.6	955
242	Mobility and Elasticity of Self-Assembled Membranes. Physical Review Letters, 1999, 82, 221-224.	7.8	457
243	Membrane curvature induced by polymers and colloids. Physica A: Statistical Mechanics and Its Applications, 1998, 249, 536-543.	2.6	59
244	Contact Angles on Heterogeneous Surfaces:â€‰ A New Look at Cassie's and Wenzel's Laws. Langmuir, 1998, 14, 6772-6780.	3.5	301
245	Computer simulations of bilayer membranes: Self-assembly and interfacial tension. Journal of Chemical Physics, 1998, 108, 7397-7409.	3.0	487
246	Morphological Transitions of Wetting Layers on Structured Surfaces. Physical Review Letters, 1998, 80, 1920-1923.	7.8	240
247	Scaling Properties of Interfaces and Membranes. , 1998, , 227-245.		0
248	Driven Ratchets with Disordered Tracks. Physical Review Letters, 1997, 79, 2895-2898.	7.8	72
249	Flexible membranes with anchored polymers. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1997, 128, 255-264.	4.7	55
250	Local contacts of membranes and strings. Physica A: Statistical Mechanics and Its Applications, 1997, 244, 164-175.	2.6	12
251	Fluid Vesicles in Shear Flow. Physical Review Letters, 1996, 77, 3685-3688.	7.8	324
252	Shape transformations of vesicles with intramembrane domains. Physical Review E, 1996, 53, 2670-2683.	2.1	270

#	Article	IF	Citations
253	Elastic Properties of Polymer-Decorated Membranes. Journal De Physique II, 1996, 6, 1465-1481.	0.9	104
254	Flexible membranes with anchored polymers. Materials Research Society Symposia Proceedings, 1996, 463, 81.	0.1	1
255	Adhesion of Membranes via Anchored Stickers. Physical Review Letters, 1996, 77, 1652-1655.	7.8	81
256	Discontinuous Phase Transitions of Membranes: a Monte Carlo Study. Journal De Physique II, 1996, 6, 255-270.	0.9	11
257	Preface to Volume 1A from Cells to Vesicles: Introduction and Overview. Handbook of Biological Physics, 1995, , ix-x.	0.8	5
258	From bunches of membranes to bundles of strings. European Physical Journal B, 1995, 97, 193-203.	1.5	35
259	The morphology of lipid membranes. Current Opinion in Structural Biology, 1995, 5, 531-540.	5.7	123
260	Renormalization of hydration forces by collective protrusion modes. Biophysical Chemistry, 1994, 49, 27-37.	2.8	46
261	Universal Aspects of Interacting Lines and Surfaces. , 1994, , 169-206.		1
262	Three interacting strings in two dimensions: non-universal and multiple unbinding transitions. Journal De Physique, I, 1994, 4, 47-75.	1.2	7
263	Discontinuous unbinding transitions of flexible membranes. Journal De Physique II, 1994, 4, 1755-1762.	0.9	21
264	Statistical physics of flexible membranes. Physica A: Statistical Mechanics and Its Applications, 1993, 194, 114-127.	2.6	13
265	Domain-induced budding of vesicles. Physical Review Letters, 1993, 70, 2964-2967.	7.8	317
266	Domain-induced budding of fluid membranes. Biophysical Journal, 1993, 64, 1133-1138.	0.5	168
267	Conformal degeneracy and conformal diffusion of vesicles. Physical Review Letters, 1993, 71, 452-455.	7.8	51
268	Unbinding of symmetric and asymmetric stacks of membranes. Physical Review Letters, 1993, 71, 3596-3599.	7.8	41
269	Critical behavior of three interacting strings. Physical Review E, 1993, 47, 3039-3042.	2.1	10
270	Critical roughening of interfaces: A new class of renormalizable field theories. Physical Review Letters, 1993, 70, 1131-1134.	7.8	15

#	Article	IF	Citations
271	Phase diagrams and shape transformations of toroidal vesicles. Journal De Physique II, 1993, 3, 1681-1705.	0.9	22
272	Delocalization transitions of low-dimensional manifolds. Physical Review A, 1992, 45, 8644-8656.	2.5	9
273	The physics of flexible membranes. , 1992, , 19-44.		2
274	Budding of membranes induced by intramembrane domains. Journal De Physique II, 1992, 2, 1825-1840.	0.9	238
275	Fluctuations and stability of polymerized vesicles. Journal De Physique II, 1992, 2, 1563-1575.	0.9	14
276	Critical Phenomena at Surfaces and Interfaces. , 1992, , 107-121.		0
277	Adhesion of membranes: a theoretical perspective. Langmuir, 1991, 7, 1867-1873.	3.5	79
278	Critical Behavior of Interfaces: Roughening and Wetting Phenomena. Materials Research Society Symposia Proceedings, 1991, 237, 11.	0.1	1
279	The Conformation of Flexible Membranes. Materials Research Society Symposia Proceedings, 1991, 248, 47.	0.1	0
280	Critical behavior of interacting manifolds. Physica A: Statistical Mechanics and Its Applications, 1991, 177, 182-188.	2.6	6
281	The conformation of membranes. Nature, 1991, 349, 475-481.	27.8	913
282	Shape transformations of vesicles: Phase diagram for spontaneous- curvature and bilayer-coupling models. Physical Review A, 1991, 44, 1182-1202.	2.5	796
283	Lipowsky and Girardet reply. Physical Review Letters, 1991, 67, 1670-1670.	7.8	4
284	Surface melting away from equilibrium. Physical Review B, 1991, 43, 3507-3513.	3.2	21
285	Universality classes for wetting in two-dimensional random-bond systems. Physical Review B, 1991, 44, 13042-13052.	3.2	15
286	Adhesion of Vesicles and Membranes. Molecular Crystals and Liquid Crystals, 1991, 202, 17-25.	0.7	157
287	Lipowskyet al. reply. Physical Review Letters, 1990, 64, 2105-2105.	7.8	5
288	Shape fluctuations of polymerized or solidlike membranes. Physical Review Letters, 1990, 65, 2893-2896.	7.8	69

#	Article	IF	Citations
289	Adhesion of vesicles. Physical Review A, 1990, 42, 4768-4771.	2.5	457
290	Absence of first-order unbinding transitions of fluid and polymerized membranes. Physical Review A, 1990, 41, 4574-4577.	2.5	21
291	Binding and unbinding of lipid membranes: A Monte Carlo study. Physical Review Letters, 1989, 62, 1572-1575.	7.8	88
292	Multicomponent Order Parameter for Surface Melting. Physical Review Letters, 1989, 62, 913-916.	7.8	74
293	Adsorption transitions of polymers and crumpled membranes. Physical Review A, 1989, 40, 2078-2081.	2.5	21
294	Parabolic Renormalization-Group Flow for Interfaces and Membranes. Physical Review Letters, 1989, 62, 704-707.	7.8	28
295	Wetting in a two-dimensional random-bond Ising model. Physical Review B, 1989, 39, 2632-2639.	3.2	11
296	Recent results on surface-induced disorder and surface melting. Ferroelectrics, 1989, 89, 278-282.	0.6	0
297	Renormalized Interactions of Interfaces, Membranes and Polymers. Physica Scripta, 1989, T29, 259-264.	2.5	32
298	Equilibrium Crystal Shapes of Ideal and Random Quasicrystals. Physical Review Letters, 1988, 60, 2394-2397.	7.8	30
299	Vortex Behavior in High-TcSuperconductors with Disorder. Physical Review Letters, 1988, 61, 2508-2508.	7.8	43
300	Stretched-exponential relaxation of birefringence in a critical binary mixture. Physical Review B, 1988, 38, 7223-7226.	3.2	41
301	Complete Wetting or Near-Critical Adsorption?. Physical Review Letters, 1988, 60, 242-242.	7.8	7
302	Surface critical phenomena at first-order phase transitions. Ferroelectrics, 1987, 73, 69-81.	0.6	98
303	Scaling regimes and functional renormalization for wetting transitions. Physical Review B, 1987, 36, 2126-2141.	3.2	192
304	Wetting on cylinders and spheres. Physical Review B, 1987, 36, 8725-8735.	3.2	98
305	Complete unbinding and quasi-long-range order in lamellar phases. Physical Review B, 1987, 35, 7004-7009.	3.2	102
306	Interface roughening in two-dimensional quasicrystals. Physical Review Letters, 1987, 59, 1679-1682.	7.8	50

#	Article	IF	Citations
307	Extreme swelling of lamellar phases. Physical Review Letters, 1987, 58, 1796-1796.	7.8	18
308	Unbinding Transitions of Interacting Membranes. Physical Review Letters, 1987, 59, 1983-1983.	7.8	22
309	Interfacial phase transitions of microemulsions. Journal of the Chemical Society, Faraday Transactions 2, 1986, 82, 1739.	1.1	12
310	Diffusion-Limited Growth of Wetting Layers. Physical Review Letters, 1986, 57, 353-356.	7.8	92
311	Unusual Bifurcation of Renormalization-Group Fixed Points for Interfacial Transitions. Physical Review Letters, 1986, 57, 2411-2414.	7.8	61
312	Wetting in random systems. Physical Review Letters, 1986, 56, 472-475.	7.8	80
313	Unbinding Transitions of Interacting Membranes. Physical Review Letters, 1986, 56, 2541-2544.	7.8	320
314	Melting at Grain Boundaries and Surfaces. Physical Review Letters, 1986, 57, 2876-2876.	7.8	50
315	Critical Surface Phenomena at First-Order Bulk Transitions. Physical Review Letters, 1982, 49, 1575-1578.	7.8	359
316	On the theory of turbulence: A non eulerian renormalized expansion. Zeitschrift FÃ¼r Physik B Condensed Matter and Quanta, 1979, 33, 223-231.	1.9	7