Hans-GÃ¼nther DÃ¶bereiner

List of Publications by Year
in descending order

62 papers	4,645 citations	172457 29 h-index	149698 56 g-index
63 all docs	63 docs citations	63 times ranked	4308 citing authors

#	Article	IF	Citations
1	Periodic Lamellipodial Contractions Correlate with Rearward Actin Waves. Cell, 2004, 116, 431-443.	28.9	536
2	Lamellipodial Actin Mechanically Links Myosin Activity with Adhesion-Site Formation. Cell, 2007, 128, 561-575.	28.9	472
3	Budding transitions of fluid-bilayer vesicles: The effect of area-difference elasticity. Physical Review E, 1994, 49, 5389-5407.	2.1	440
4	Budding and fission of vesicles. Biophysical Journal, 1993, 65, 1396-1403.	0.5	253
5	CONTINUOUS MEMBRANE-CYTOSKELETON ADHESION REQUIRES CONTINUOUS ACCOMMODATION TO LIPID AND CYTOSKELETON DYNAMICS. Annual Review of Biophysics and Biomolecular Structure, 2006, 35, 417-434.	18.3	249
6	Vesicles in contact with nanoparticles and colloids. Europhysics Letters, 1998, 43, 219-225.	2.0	224
7	Refined contour analysis of giant unilamellar vesicles. European Physical Journal E, 2004, 13, 277-290.	1.6	218
8	Nanometer Analysis of Cell Spreading on Matrix-Coated Surfaces Reveals Two Distinct Cell States and STEPs. Biophysical Journal, 2004, 86, 1794-1806.	0.5	208
9	Mapping vesicle shapes into the phase diagram: A comparison of experiment and theory. Physical Review E, 1997, 55, 4458-4474.	2.1	201
10	Lateral Membrane Waves Constitute a Universal Dynamic Pattern of Motile Cells. Physical Review Letters, 2006, 97, 038102.	7.8	142
11	Dynamic Phase Transitions in Cell Spreading. Physical Review Letters, 2004, 93, 108105.	7.8	129
12	Influence of transbilayer area asymmetry on the morphology of large unilamellar vesicles. Biophysical Journal, 1995, 69, 930-941.	0.5	122
13	Quantification of Cell Edge Velocities and Traction Forces Reveals Distinct Motility Modules during Cell Spreading. PLoS ONE, 2008, 3, e3735.	2.5	112
14	Spontaneous curvature of fluid vesicles induced by trans-bilayer sugar asymmetry. European Biophysics Journal, 1999, 28, 174-178.	2.2	110
15	Poisonous plants affecting livestock in Brazil. Toxicon, 2002, 40, 1635-1660.	1.6	103
16	Properties of giant vesicles. Current Opinion in Colloid and Interface Science, 2000, 5, 256-263.	7.4	95
17	Starfish vesicles. Europhysics Letters, 1996, 33, 403-408.	2.0	81
18	Advanced Flicker Spectroscopy of Fluid Membranes. Physical Review Letters, 2003, 91, 048301.	7.8	64

#	Article	IF	Citations
19	Membrane curvature induced by polymers and colloids. Physica A: Statistical Mechanics and Its Applications, 1998, 249, 536-543.	2.6	59
20	Giant Hexagonal Superstructures in Diblock-Copolymer Membranes. Physical Review Letters, 2002, 89, 238302.	7.8	58
21	Force sensing and generation in cell phases: analyses of complex functions. Journal of Applied Physiology, 2005, 98, 1542-1546.	2.5	53
22	Gelâ^'Fluid Transition in Dilute versus Concentrated DMPG Aqueous Dispersions. Journal of Physical Chemistry B, 2002, 106, 239-246.	2.6	52
23	Mesoscopic Structure in the Chain-Melting Regime of Anionic Phospholipid Vesicles: DMPG. Biophysical Journal, 2004, 86, 3722-3733.	0.5	52
24	Coupling chemical reactions to membrane curvature: A photochemical morphology switch. Europhysics Letters, 1999, 48, 435-441.	2.0	48
25	Spinodal Fluctuations of Budding Vesicles. Physical Review Letters, 1995, 75, 3360-3363.	7.8	45
26	Physarum polycephalumPercolation as a Paradigm for Topological Phase Transitions in Transportation Networks. Physical Review Letters, 2012, 109, 078103.	7.8	44
27	Slow Relaxation Dynamics of Tubular Polymersomes after Thermal Quench. Langmuir, 2003, 19, 605-608.	3.5	40
28	Fronts and waves of actin polymerization in a bistability-based mechanism of circular dorsal ruffles. Nature Communications, 2017, 8, 15863.	12.8	38
29	Physarum polycephalumâ€"a new take on a classic model system. Journal Physics D: Applied Physics, 2017, 50, 413001.	2.8	37
30	Hyperviscous diblock copolymer vesicles. European Physical Journal E, 2002, 7, 241-250.	1.6	36
31	Myosin 1E localizes to actin polymerization sites in lamellipodia, affecting actin dynamics and adhesion formation. Biology Open, 2013, 2, 1288-1299.	1.2	33
32	Dynamics of Actin Waves on Patterned Substrates: A Quantitative Analysis of Circular Dorsal Ruffles. PLoS ONE, 2015, 10, e0115857.	2.5	32
33	Adaptive behaviour and learning in slime moulds: the role of oscillations. Philosophical Transactions of the Royal Society B: Biological Sciences, 2021, 376, 20190757.	4.0	31
34	Giant vesicles at the prolate-oblate transition: A macroscopic bistable system. Europhysics Letters, 1996, 36, 325-330.	2.0	29
35	Curvature of Zwitterionic Membranes in Transverse pH Gradients. Langmuir, 1999, 15, 8543-8546.	3.5	29
36	Diacylglycerol-Rich Domain Formation in Giant Stearoyl-Oleoyl Phosphatidylcholine Vesicles Driven by Phospholipase C Activity. Biophysical Journal, 2003, 85, 2351-2362.	0.5	29

#	Article	IF	Citations
37	Comment on â€œGel-Fluid Transition in Dilute versus Concentrated DMPG Aqueous Dispersionsâ€• Journal of Physical Chemistry B, 2003, 107, 5391-5392.	2.6	17
38	A lumped parameter model of endoplasm flow in Physarum polycephalum explains migration and polarization-induced asymmetry during the onset of locomotion. PLoS ONE, 2019, 14, e0215622.	2.5	16
39	Form follows function: ultrastructure of different morphotypes ofPhysarum polycephalum. Journal Physics D: Applied Physics, 2018, 51, 134006.	2.8	15
40	Structuring precedes extension in percolating Physarum polycephalum networks. Nano Communication Networks, 2015, 6, 87-95.	2.9	14
41	Indentation analysis of active viscoelastic microplasmodia ofP. polycephalum. Journal Physics D: Applied Physics, 2018, 51, 024005.	2.8	10
42	Membrane Curvature Induced by Sugar and Polymer Solutions. Materials Research Society Symposia Proceedings, 1997, 489, 101.	0.1	9
43	A novel growth mode ofPhysarum polycephalumduring starvation. Journal Physics D: Applied Physics, 2018, 51, 244002.	2.8	8
44	Instabilities in the nonlinear relativistic mean-field model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1989, 227, 305-309.	4.1	7
45	Slime mold on the rise: the physics of Physarum polycephalum. Journal Physics D: Applied Physics, 2020, 53, 310201.	2.8	7
46	Nonlinear compliance of elastic layers to indentation. Biomechanics and Modeling in Mechanobiology, 2018, 17, 419-438.	2.8	6
47	Adhesion patterns in early cell spreading. Journal of Physics Condensed Matter, 2010, 22, 194106.	1.8	5
48	Correlation and Comparison of Cortical and Hippocampal Neural Progenitor Morphology and Differentiation through the Use of Micro- and Nano-Topographies. Journal of Functional Biomaterials, 2017, 8, 35.	4.4	5
49	Mitochondrial numbers increase during glucose deprivation in the slime mold Physarum polycephalum. Protoplasma, 2019, 256, 1647-1655.	2.1	5
50	Spatiotemporal Patterns of Noise-Driven Confined Actin Waves in Living Cells. Physical Review Letters, 2017, 118, 048102.	7.8	4
51	Amplitude hierarchy of vesicle shapes. , 1999, 25, 35-39.		3
52	Quantifying Membrane Asymmetry. Biophysical Journal, 1999, 76, 1723-1724.	0.5	2
53	Fluctuating Vesicle Shapes. Perspectives in Supramolecular Chemistry, 2007, , 149-167.	0.1	2
54	Dynamics of Membranes: From Passive to Active Systems. , 0, , 71-82.		1

#	Article	IF	Citations
55	Flexible membranes with anchored polymers. Materials Research Society Symposia Proceedings, 1996, 463, 81.	0.1	1
56	Signatures of chemical reactions in the morphology and fluctuations of giant vesicles. Journal of Physics Condensed Matter, 2003, 15, S303-S308.	1.8	1
57	Biomechanical Aspects of Actin Bundle Dynamics. Frontiers in Cell and Developmental Biology, 2020, 8, 422.	3.7	1
58	Growth pattern of Physarum polycephalum during starvation. , 2016, , .		1
59	Functional Phases in Cell Attachment and Spreading. , 2005, , 1-13.		0
60	Light-Induced Shape Transitions of Giant Vesicles. Perspectives in Supramolecular Chemistry, 2007, , 335-339.	0.1	0
61	Micromanipulation of Tubular Vesicles. Perspectives in Supramolecular Chemistry, 2007, , 181-184.	0.1	0
62	Integrated biology of Physarum polycephalum: cell biology, biophysics, and behavior of plasmodial networks. , 2022, , 453-492.		0