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	Integrated biology of Physarum polycephalum: cell biology, biophysics, and behavior of plasmodial networks. , 2022, , 453-492.		0
2	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
3	Slime mold on the rise: the physics of Physarum polycephalum. Journal Physics D: Applied Physics, 2020, 53, 310201.	2.8	7
4	Biomechanical Aspects of Actin Bundle Dynamics. Frontiers in Cell and Developmental Biology, 2020, 8, 422.	3.7	1
5	Mitochondrial numbers increase during glucose deprivation in the slime mold Physarum polycephalum. Protoplasma, 2019, 256, 1647-1655.	2.1	5
6	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
7	Form follows function: ultrastructure of different morphotypes ofPhysarum polycephalum. Journal Physics D: Applied Physics, 2018, 51, 134006.	2.8	15
8	Indentation analysis of active viscoelastic microplasmodia ofP. polycephalum. Journal Physics D: Applied Physics, 2018, 51, 024005.	2.8	10
9	Nonlinear compliance of elastic layers to indentation. Biomechanics and Modeling in Mechanobiology, 2018, 17, 419-438.	2.8	6
10	A novel growth mode ofPhysarum polycephalumduring starvation. Journal Physics D: Applied Physics, 2018, 51, 244002.	2.8	8
11	Spatiotemporal Patterns of Noise-Driven Confined Actin Waves in Living Cells. Physical Review Letters, 2017, 118, 048102.	7.8	4
12	Physarum polycephalumâ€"a new take on a classic model system. Journal Physics D: Applied Physics, 2017, 50, 413001.	2.8	37
13	Fronts and waves of actin polymerization in a bistability-based mechanism of circular dorsal ruffles. Nature Communications, 2017, 8, 15863.	12.8	38
14	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
15	Growth pattern of Physarum polycephalum during starvation. , 2016, , .		1
16	Dynamics of Actin Waves on Patterned Substrates: A Quantitative Analysis of Circular Dorsal Ruffles. PLoS ONE, 2015, 10, e0115857.	2.5	32
17	Structuring precedes extension in percolating Physarum polycephalum networks. Nano Communication Networks, 2015, 6, 87-95.	2.9	14
18	Myosin 1E localizes to actin polymerization sites in lamellipodia, affecting actin dynamics and adhesion formation. Biology Open, 2013, 2, 1288-1299.	1.2	33

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19	Physarum polycephalumPercolation as a Paradigm for Topological Phase Transitions in Transportation Networks. Physical Review Letters, 2012, 109, 078103.	7.8	44
20	Adhesion patterns in early cell spreading. Journal of Physics Condensed Matter, 2010, 22, 194106.	1.8	5
21	Quantification of Cell Edge Velocities and Traction Forces Reveals Distinct Motility Modules during Cell Spreading. PLoS ONE, 2008, 3, e3735.	2.5	112
22	Fluctuating Vesicle Shapes. Perspectives in Supramolecular Chemistry, 2007, , 149-167.	0.1	2
23	Light-Induced Shape Transitions of Giant Vesicles. Perspectives in Supramolecular Chemistry, 2007, , 335-339.	0.1	0
24	Lamellipodial Actin Mechanically Links Myosin Activity with Adhesion-Site Formation. Cell, 2007, 128, 561-575.	28.9	472
25	Micromanipulation of Tubular Vesicles. Perspectives in Supramolecular Chemistry, 2007, , 181-184.	0.1	0
26	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
27	Lateral Membrane Waves Constitute a Universal Dynamic Pattern of Motile Cells. Physical Review Letters, 2006, 97, 038102.	7.8	142
28	Force sensing and generation in cell phases: analyses of complex functions. Journal of Applied Physiology, 2005, 98, 1542-1546.	2.5	53
29	Functional Phases in Cell Attachment and Spreading. , 2005, , 1-13.		0
30	Dynamic Phase Transitions in Cell Spreading. Physical Review Letters, 2004, 93, 108105.	7.8	129
31	Refined contour analysis of giant unilamellar vesicles. European Physical Journal E, 2004, 13, 277-290.	1.6	218
32	Mesoscopic Structure in the Chain-Melting Regime of Anionic Phospholipid Vesicles: DMPG. Biophysical Journal, 2004, 86, 3722-3733.	0.5	52
33	Periodic Lamellipodial Contractions Correlate with Rearward Actin Waves. Cell, 2004, 116, 431-443.	28.9	536
34	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
35	Signatures of chemical reactions in the morphology and fluctuations of giant vesicles. Journal of Physics Condensed Matter, 2003, 15, S303-S308.	1.8	1
36	Advanced Flicker Spectroscopy of Fluid Membranes. Physical Review Letters, 2003, 91, 048301.	7.8	64

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37	Slow Relaxation Dynamics of Tubular Polymersomes after Thermal Quench. Langmuir, 2003, 19, 605-608.	3.5	40
38	Diacylglycerol-Rich Domain Formation in Giant Stearoyl-Oleoyl Phosphatidylcholine Vesicles Driven by Phospholipase C Activity. Biophysical Journal, 2003, 85, 2351-2362.	0.5	29
39	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
40	Giant Hexagonal Superstructures in Diblock-Copolymer Membranes. Physical Review Letters, 2002, 89, 238302.	7.8	58
41	Gelâ˜Fluid Transition in Dilute versus Concentrated DMPG Aqueous Dispersions. Journal of Physical Chemistry B, 2002, 106, 239-246.	2.6	52
42	Poisonous plants affecting livestock in Brazil. Toxicon, 2002, 40, 1635-1660.	1.6	103
43	Hyperviscous diblock copolymer vesicles. European Physical Journal E, 2002, 7, 241-250.	1.6	36
44	Properties of giant vesicles. Current Opinion in Colloid and Interface Science, 2000, 5, 256-263.	7.4	95
45	Amplitude hierarchy of vesicle shapes. , 1999, 25, 35-39.		3
46	Spontaneous curvature of fluid vesicles induced by trans-bilayer sugar asymmetry. European Biophysics Journal, 1999, 28, 174-178.	2.2	110
47	Coupling chemical reactions to membrane curvature: A photochemical morphology switch. Europhysics Letters, 1999, 48, 435-441.	2.0	48
48	Quantifying Membrane Asymmetry. Biophysical Journal, 1999, 76, 1723-1724.	0.5	2
49	Curvature of Zwitterionic Membranes in Transverse pH Gradients. Langmuir, 1999, 15, 8543-8546.	3.5	29
50	Membrane curvature induced by polymers and colloids. Physica A: Statistical Mechanics and Its Applications, 1998, 249, 536-543.	2.6	59
51	Vesicles in contact with nanoparticles and colloids. Europhysics Letters, 1998, 43, 219-225.	2.0	224
52	Mapping vesicle shapes into the phase diagram: A comparison of experiment and theory. Physical Review E, 1997, 55, 4458-4474.	2.1	201
53	Membrane Curvature Induced by Sugar and Polymer Solutions. Materials Research Society Symposia Proceedings, 1997, 489, 101.	0.1	9
54	Starfish vesicles. Europhysics Letters, 1996, 33, 403-408.	2.0	81

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55	Giant vesicles at the prolate-oblate transition: A macroscopic bistable system. Europhysics Letters, 1996, 36, 325-330.	2.0	29
56	Flexible membranes with anchored polymers. Materials Research Society Symposia Proceedings, 1996, 463, 81.	0.1	1
57	Spinodal Fluctuations of Budding Vesicles. Physical Review Letters, 1995, 75, 3360-3363.	7.8	45
58	Influence of transbilayer area asymmetry on the morphology of large unilamellar vesicles. Biophysical Journal, 1995, 69, 930-941.	0.5	122
59	Budding transitions of fluid-bilayer vesicles: The effect of area-difference elasticity. Physical Review E, 1994, 49, 5389-5407.	2.1	440
60	Budding and fission of vesicles. Biophysical Journal, 1993, 65, 1396-1403.	0.5	253
61	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
62	Dynamics of Membranes: From Passive to Active Systems. , 0, , 71-82.		1