Stephan Herminghaus

List of Publications by Year
in descending order

100 papers	7,218 citations	66343 42 h-index	54911 84 g-index
103 all docs	103 docs citations	103 times ranked	7317 citing authors

#	Article	IF	Citations
1	A control theory approach to optimal pandemic mitigation. PLoS ONE, 2021, 16, e0247445.	2.5	16
2	Capillary Interaction in Wet Granular Assemblies: Part 1. , 2019, , 239-275.		0
3	A modular approach for multifunctional polymersomes with controlled adhesive properties. Soft Matter, 2018, 14, 894-900.	2.7	17
4	Radar for tracer particles. Review of Scientific Instruments, 2017, 88, 051801.	1.3	9
5	Influence of humidity on tribo-electric charging and segregation in shaken granular media. Soft Matter, 2017, 13, 394-401.	2.7	73
6	The Role of Local Instabilities in Fluid Invasion into Permeable Media. Scientific Reports, 2017, 7, 444.	3.3	65
7	Liquid morphologies and capillary forces between three spherical beads. Physical Review E, 2016, 94, 012907.	2.1	23
8	Filling transitions on rough surfaces: Inadequacy of Gaussian surface models. Physical Review E, 2016, 93, 032802.	2.1	5
9	The minimization of mechanical work in vibrated granular matter. Scientific Reports, 2016, 6, 28726.	3.3	12
10	Dimensionality matters in the collective behaviour of active emulsions. European Physical Journal E, 2016, 39, 64.	1.6	44
11	Vesicles-on-a-chip: A universal microfluidic platform for the assembly of liposomes and polymersomes. European Physical Journal E, 2016, 39, 59.	1.6	71
12	Swimming Droplets. Annual Review of Condensed Matter Physics, 2016, 7, 171-193.	14.5	229
13	Electrowetting Actuated Microfluidic Transport in Surface Grooves with Triangular Cross Section. Langmuir, 2015, 31, 1231-1236.	3.5	15
14	Role of contact-angle hysteresis for fluid transport in wet granular matter. Physical Review E, 2015, 91, 042204.	2.1	18
15	Direct Visualization of Spatiotemporal Structure of Self-Assembled Colloidal Particles in Electrohydrodynamic Flow of a Nematic Liquid Crystal. Langmuir, 2015, 31, 3815-3819.	3.5	10
16	Liquid crystal microfluidics: surface, elastic and viscous interactions at microscales. Liquid Crystals Reviews, 2014, 2, 73-110.	4.1	92
17	Lasing and waveguiding in smectic A liquid crystal optical fibers. , 2014, , .		0
18	Arrest of the flow of wet granular matter. Journal of Fluid Mechanics, 2014, 738, 407-422.	3.4	5

#	Article	IF	Citations
19	Wetting Heterogeneities in Porous Media Control Flow Dissipation. Physical Review Applied, 2014, 2, .	3.8	56
20	Interfacial mechanisms in active emulsions. Soft Matter, 2014, 10, 7008-7022.	2.7	159
21	Colloidal caterpillars for cargo transportation. Soft Matter, 2014, 10, 8813-8820.	2.7	44
22	Tuning active emulsion dynamics via surfactants and topology. European Physical Journal E, 2013, 36, 91.	1.6	45
23	Droplet sorting in a loop of flat microfluidic channels. Journal of Physics Condensed Matter, 2013, 25, 285102.	1.8	14
24	Myelin Structures Formed by Thermotropic Smectic Liquid Crystals. Langmuir, 2013, 29, 15682-15688.	3.5	31
25	Lasing and waveguiding in smectic A liquid crystal optical fibers. Optics Express, 2013, 21, 30233.	3.4	46
26	Liquid Crystal Microfluidics for Tunable Flow Shaping. Physical Review Letters, 2013, 110, 048303.	7.8	94
27	Why can artificial membranes be fabricated so rapidly in microfluidics?. Chemical Communications, 2013, 49, 1443.	4.1	22
28	Flow of a nematogen past a cylindrical micro-pillar. Soft Matter, 2013, 9, 1937-1946.	2.7	26
29	Topological microfluidics for flexible micro-cargo concepts. Soft Matter, 2013, 9, 7251.	2.7	50
30	Formation of Kinneyia via shear-induced instabilities in microbial mats. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2013, 371, 20120362.	3.4	0
31	Dynamics of the wet granular Leidenfrost phenomenon. Physical Review E, 2012, 86, 021301.	2.1	5
32	Packings of monodisperse emulsions in flat microfluidic channels. Physical Review E, 2012, 85, 061403.	2.1	7
33	Emergent Surface Tension in Vibrated, Noncohesive Granular Media. Physical Review Letters, 2012, 109, 228002.	7.8	21
34	Wet granular rafts: aggregation in two dimensions under shear flow. Soft Matter, 2012, 8, 11939.	2.7	16
35	Opto-fluidic velocimetry using liquid crystal microfluidics. Applied Physics Letters, 2012, 101, .	3.3	25
36	Solubilization of Thermotropic Liquid Crystal Compounds in Aqueous Surfactant Solutions. Langmuir, 2012, 28, 12426-12431.	3.5	71

#	Article	IF	Citations
37	Flow Loading Induces Oscillatory Trajectories in a Bloodstream Parasite. Biophysical Journal, 2012, 103, 1162-1169.	0.5	29
38	Advancing modes on regularly patterned substrates. Soft Matter, 2012, 8, 6301.	2.7	27
39	X-Ray propagation imaging of a lipid bilayer in solution. Soft Matter, 2012, 8, 4595.	2.7	18
40	Droplet based microfluidics. Reports on Progress in Physics, 2012, 75, 016601.	20.1	813
41	Wet granular matter: a truly complex fluid. Soft Matter, 2012, 8, 8271.	2.7	69
42	Bilayer membranes in micro-fluidics: from gel emulsions to soft functional devices. Soft Matter, 2011, 7, 1312-1320.	2.7	52
43	Synaptotagmin-1 may be a distance regulator acting upstream of SNARE nucleation. Nature Structural and Molecular Biology, 2011, 18, 805-812.	8.2	125
44	Wetting morphologies and their transitions in grooved substrates. Journal of Physics Condensed Matter, 2011, 23, 184108.	1.8	28
45	Swarming behavior of simple model squirmers. New Journal of Physics, 2011, 13, 073021.	2.9	325
46	Liquid-Gas Phase Separation in Confined Vibrated Dry Granular Matter. Physical Review Letters, 2011, 107, 048002.	7.8	34
47	Interface morphologies in liquid/liquid dewetting. Chemical Engineering and Processing: Process Intensification, 2011, 50, 531-536.	3.6	12
48	Mechanical stability of ordered droplet packings in microfluidic channels. Applied Physics Letters, 2011, 99, .	3.3	7
49	Impact of Microscopic Motility on the Swimming Behavior of Parasites: Straighter Trypanosomes are More Directional. PLoS Computational Biology, 2011, 7, e1002058.	3.2	45
50	Templateâ€free Preparation of Mesoporous Silica Spheres through Optimized Microfluidics. ChemPhysChem, 2010, 11, 2091-2095.	2.1	19
51	Smectic membranes in aqueous environment. Physical Review E, 2010, 81, 051709.	2.1	17
52	Platinum Supported Mesoporous Silica Spheres by Optimized Microfluidic Sol-Gel Synthesis Scheme. , 2010, , .		0
53	Optimized droplet-based microfluidics scheme for solâ€“gel reactions. Lab on A Chip, 2010, 10, 1700.	6.0	73
54	Controlling the Formation of Capillary Bridges in Binary Liquid Mixtures. Langmuir, 2010, 26, 17184-17189.	3.5	44

#	Article	IF	Citations
55	Discrete microfluidics: Reorganizing droplet arrays at a bend. Applied Physics Letters, 2009, 95, .	3.3	15
56	Cooling and Aggregation in Wet Granulates. Physical Review Letters, 2009, 102, 148002.	7.8	25
57	Dilute wet granular particles: Nonequilibrium dynamics and structure formation. Physical Review E, 2009, 80, 031306.	2.1	21
58	Unstable Kolmogorov flow in granular matter. Chaos, 2009, 19, 041106.	2.5	10
59	Manipulation of gel emulsions by variable microchannel geometry. Lab on A Chip, 2009, 9, 325-330.	6.0	36
60	In situ formation, manipulation, and imaging of droplet-encapsulated fibrin networks. Lab on A Chip, 2009, 9, 1933.	6.0	25
61	Dynamic x-ray optics with microfluidics: stabilization of gas bubbles by surface ordering and freezing. Houille Blanche, 2009, 95, 129-134.	0.3	0
62	Wetting and Dewetting of Complex Surface Geometries. Annual Review of Materials Research, 2008, 38, 101-121.	9.3	167
63	Surface Hydrophobicity Causes SO2 Tolerance in Lichens. Annals of Botany, 2008, 101, 531-539.	2.9	58
64	Self-synchronizing pairwise production of monodisperse droplets by microfluidic step emulsification. Applied Physics Letters, 2008, 93, 254101.	3.3	52
65	Controlled Production of Monodispersed Silica Microspheres Using a Double Step-Emulsification Device. , 2008, , .		0
66	Hydrodynamic Flow-Mediated Protein Sorting on the Cell Surface of Trypanosomes. Cell, 2007, 131, 505-515.	28.9	352
67	Dewetting of Liquid Filaments in Wedge-Shaped Grooves. Langmuir, 2007, 23, 12138-12141.	3.5	26
68	Transport Dynamics in Open Microfluidic Grooves. Langmuir, 2007, 23, 5200-5204.	3.5	57
69	Switching Liquid Morphologies on Linear Grooves. Langmuir, 2007, 23, 12997-13006.	3.5	60
70	Structure Formation in Thin Liquid Films: Interface Forces Unleashed. , 2007, , 1-24.		0
71	Freezing of polymer thin films and surfaces: The small molecular weight puzzle. Journal of Polymer Science, Part B: Polymer Physics, 2006, 44, 2968-2979.	2.1	33
72	Controlled electrocoalescence in microfluidics: Targeting a single lamella. Applied Physics Letters, 2006, 89, 134101.	3.3	213

#	Article	IF	Citations
73	Generation of monodisperse gel emulsions in a microfluidic device. Applied Physics Letters, 2006, 88, 024106.	3.3	139
74	Dynamics and structure formation in thin polymer melt films. Journal of Physics Condensed Matter, 2005, 17, S267-S290.	1.8	135
75	Electroactuation of Fluid Using Topographical Wetting Transitions. Langmuir, 2005, 21, 12218-12221.	3.5	41
76	Kolmogorov-Sinai Entropy of the Dilute Wet Granular Gas. Physical Review Letters, 2005, 95, 198001.	7.8	4
77	Polymer Surface Melting Mediated by Capillary Waves. Physical Review Letters, 2004, 93, .	7.8	46
78	On capillary bridges in wet granular materials. Physica A: Statistical Mechanics and Its Applications, 2004, 339, 7-15.	2.6	105
79	Wet granular matter under vertical agitation. Journal of Physics Condensed Matter, 2004, 16, S4213-S4218.	1.8	20
80	Wetting behaviour of 5CB and 8CB and their binary mixtures above the isotropic transition. Liquid Crystals, 2004, 31, 557-566.	2.2	8
81	How Plants Keep Dry:Â A Physicist's Point of View. Langmuir, 2004, 20, 2405-2408.	3.5	437
82	Trends in Microfluidics with Complex Fluids. ChemPhysChem, 2003, 4, 1291-1298.	2.1	78
83	Studies on the Dielectric Behavior of Silica-Filled Butyl Rubber Vulcanizates After Cyclic Deformation. Journal of Macromolecular Science - Physics, 2003, 42, 1265-1280.	1.0	9
84	Interface Profiles near Three-Phase Contact Lines in Electric Fields. Physical Review Letters, 2003, 91, 086101.	7.8	138
85	Mixing and Condensation in a Wet Granular Medium. Physical Review Letters, 2003, 90, 168702.	7.8	47
86	Self-excited oscillatory dynamics of capillary bridges in electric fields. Applied Physics Letters, 2003, 82, 4187-4189.	3.3	31
87	Shear-induced solid-fluid transition in a wet granular medium. Physical Review E, 2003, 67, 052301.	2.1	27
88	Generic Morphologies of Viscoelastic Dewetting Fronts. Physical Review Letters, 2002, 89, 056101.	7.8	59
89	Impact of Line Tension on the Equilibrium Shape of Liquid Droplets on Patterned Substrates. Langmuir, 2002, 18, 9771-9777.	3.5	38
90	Electrostatic stabilization of fluid microstructures. Applied Physics Letters, 2002, 81, 2303-2305.	3.3	113

#	Article	IF	Citations
91	Strukturbildung und Dynamik in makromolekularen Filmen. Nachrichten Aus Der Chemie, 2001, 49, 1398-1404.	0.0	1
92	Liquid microstructures at solid interfaces. Journal of Physics Condensed Matter, 2000, 12, 57-74.	1.8	28
93	Nanometer resolution of liquid surface topography by scanning force microscopy. Journal of Adhesion Science and Technology, 1999, 13, 1071-1083.	2.6	20
94	OberflÃchenphysik: Strukturbildung in dÃ¼nnen Filmen: Wie perlt eine FlÃ¼ssigkeit von einer Unterlage ab?. Physik Journal, 1999, 55, 35-40.	0.1	3
95	AFM and Optical Investigations of Liquid Crystal Dewetting: Influence of Short and Long-Range Forces. Molecular Crystals and Liquid Crystals, 1999, 330, 267-276.	0.3	4
96	Liquid Morphologies on Structured Surfaces: From Microchannels to Microchips. Science, 1999, 283, 46-49.	12.6	955
97	Growth of Holes in Liquid Films with Partial Slippage. Langmuir, 1998, 14, 4961-4963.	3.5	97
98	Thin Liquid Polymer Films Rupture via Defects. Langmuir, 1998, 14, 965-969.	3.5	260
99	Pulsedâ€laser induced desorption and subsequent readsorption in ambient gas. Applied Physics Letters, 1993, 62, 2877-2879.	3.3	3
100	<title>Time-resolved study of excimer laser ablation of thin organic films from a metal surface</title>. , 1992, , .		2