Halim Kusumaatmaja

List of Publications by Year
in descending order

75 papers	3,307 citations	159525 30 h-index	149623 56 g-index
79 all docs	79 docs citations	79 times ranked	3113 citing authors

#	Article	IF	Citations
1	The Lattice Boltzmann Method. Graduate Texts in Physics, 2017, , .	0.1	761
2	Modeling Contact Angle Hysteresis on Chemically Patterned and Superhydrophobic Surfaces. Langmuir, 2007, 23, 6019-6032.	1.6	223
3	Anisotropic Drop Morphologies on Corrugated Surfaces. Langmuir, 2008, 24, 7299-7308.	1.6	147
4	The collapse transition on superhydrophobic surfaces. Europhysics Letters, 2008, 81, 36003.	0.7	135
5	Apparent contact angle and contact angle hysteresis on liquid infused surfaces. Soft Matter, 2017, 13, 101-110.	1.2	134
6	Fully Reversible Transition from Wenzel to Cassieâˆ'Baxter States on Corrugated Superhydrophobic Surfaces. Langmuir, 2010, 26, 3335-3341.	1.6	102
7	Drop dynamics on chemically patterned surfaces. Europhysics Letters, 2006, 73, 740-746.	0.7	93
8	OpenLBâ€"Open source lattice Boltzmann code. Computers and Mathematics With Applications, 2021, 81, 258-288.	1.4	88
9	Capillary filling in patterned channels. Physical Review E, 2008, 77, 067301.	0.8	80
10	Unrestrained ESCRT-III drives micronuclear catastrophe and chromosome fragmentation. Nature Cell Biology, 2020, 22, 856-867.	4.6	75
11	Ternary free-energy lattice Boltzmann model with tunable surface tensions and contact angles. Physical Review E, 2016, 93, 033305.	0.8	66
12	Ternary Free-Energy Entropic Lattice Boltzmann Model with a High Density Ratio. Physical Review Letters, 2018, 120, 234501.	2.9	60
13	Contact line dynamics in binary lattice Boltzmann simulations. Physical Review E, 2008, 78, 056709.	0.8	59
14	Defect Motifs for Constant Mean Curvature Surfaces. Physical Review Letters, 2013, 110, 165502.	2.9	52
15	Modelling double emulsion formation in planar flow-focusing microchannels. Journal of Fluid Mechanics, 2020, 895, .	1.4	52
16	Intrinsic Contact Angle of Aqueous Phases at Membranes and Vesicles. Physical Review Letters, 2009, 103, 238103.	2.9	50
17	Drop dynamics on hydrophobic and superhydrophobic surfaces. Faraday Discussions, 2010, 146, 153.	1.6	50
18	Drop Dynamics on Liquid-Infused Surfaces: The Role of the Lubricant Ridge. Langmuir, 2018, 34, 8112-8118.	1.6	48

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19	Wetting-Induced Budding of Vesicles in Contact with Several Aqueous Phases. Journal of Physical Chemistry B, 2012, 116, 1819-1823.	1.2	43
20	Moving contact line dynamics: from diffuse to sharp interfaces. Journal of Fluid Mechanics, 2016, 788, 209-227.	1.4	42
21	Modelling capillary filling dynamics using lattice Boltzmann simulations. European Physical Journal: Special Topics, 2009, 171, 63-71.	1.2	39
22	Controlling Drop Size and Polydispersity Using Chemically Patterned Surfaces. Langmuir, 2007, 23, 956-959.	1.6	37
23	Anisotropic wetting and de-wetting of drops on substrates patterned with polygonal posts. Soft Matter, 2013, 9, 674-683.	1.2	37
24	Multifaceted design optimization for superomniphobic surfaces. Science Advances, 2019, 5, eaav7328.	4.7	37
25	Self-propelled droplet transport on shaped-liquid surfaces. Scientific Reports, 2020, 10, 14987.	1.6	37
26	A Local Rigid Body Framework for Global Optimization of Biomolecules. Journal of Chemical Theory and Computation, 2012, 8, 5159-5165.	2.3	36
27	Imbibition through an array of triangular posts. Journal of Physics Condensed Matter, 2009, 21, 464125.	0.7	34
28	Equilibrium Morphologies and Effective Spring Constants of Capillary Bridges. Langmuir, 2010, 26, 18734-18741.	1.6	34
29	Droplet-induced budding transitions of membranes. Soft Matter, 2011, 7, 6914.	1.2	32
30	Bidirectional motion of droplets on gradient liquid infused surfaces. Communications Physics, 2020, 3, .	2.0	32
31	Free energy pathways of a multistable liquid crystal device. Soft Matter, 2015, 11, 4809-4817.	1.2	31
32	Intracellular wetting mediates contacts between liquid compartments and membrane-bound organelles. Journal of Cell Biology, 2021, 220, .	2.3	30
33	Anisotropic hysteresis on ratcheted superhydrophobic surfaces. Soft Matter, 2009, 5, 2704.	1.2	29
34	Energetically favoured defects in dense packings of particles on spherical surfaces. Soft Matter, 2016, 12, 5708-5717.	1.2	28
35	Edge Fracture in Complex Fluids. Physical Review Letters, 2017, 119, 028006.	2.9	27
36	Self-assembly of small molecules at hydrophobic interfaces using group effect. Nanoscale, 2020, 12, 5452-5463.	2.8	27

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37	A conformational factorisation approach for estimating the binding free energies of macromolecules. Physical Chemistry Chemical Physics, 2014, 16, 2842-2853.	1.3	25
38	Design principles for Bernal spirals and helices with tunable pitch. Nanoscale, 2014, 6, 9448-9456.	2.8	25
39	Exploring Energy Landscapes: Metrics, Pathways, and Normal-Mode Analysis for Rigid-Body Molecules. Journal of Chemical Theory and Computation, 2013, 9, 4026-4034.	2.3	21
40	Kinetic Transition Networks for the Thomson Problem and Smaleâ€™s Seventh Problem. Physical Review Letters, 2016, 117, 028301.	2.9	21
41	Factors controlling the pinning force of liquid droplets on liquid infused surfaces. Soft Matter, 2020, 16, 8114-8121.	1.2	21
42	Wetting of phase-separated droplets on plant vacuole membranes leads to a competition between tonoplast budding and nanotube formation. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	21
43	Effect of Ageing on the Structure and Properties of Model Liquid-Infused Surfaces. Langmuir, 2020, 36, 3461-3470.	1.6	20
44	Surveying the free energy landscapes of continuum models: Application to soft matter systems. Journal of Chemical Physics, 2015, 142, 124112.	1.2	19
45	Wetting boundaries for a ternary high-density-ratio lattice Boltzmann method. Physical Review E, 2019, 100, 013308.	0.8	19
46	Apparent contact angle of drops on liquid infused surfaces: geometric interpretation. Soft Matter, 2021, 17, 9553-9559.	1.2	16
47	Lattice Boltzmann simulations of drop dynamics. Mathematics and Computers in Simulation, 2006, 72, 160-164.	2.4	15
48	Exploring energy landscapes: from molecular to mesoscopic systems. Physical Chemistry Chemical Physics, 2014, 16, 5014-5025.	1.3	15
49	Measuring bilayer surface energy and curvature in asymmetric droplet interface bilayers. Journal of the Royal Society Interface, 2018, 15, 20180610.	1.5	15
50	Lattice Boltzmann Simulations of Wetting and Drop Dynamics. Understanding Complex Systems, 2010, , 241-274.	0.3	14
51	Modeling the Corrugation of the Three-Phase Contact Line Perpendicular to a Chemically Striped Substrate. Langmuir, 2009, 25, 8357-8361.	1.6	13
52	Learning dynamical information from static protein and sequencing data. Nature Communications, 2019, 10, 5368.	5.8	12
53	The impact of surface geometry, cavitation, and condensation on wetting transitions: posts and reentrant structures. Journal of Physics Condensed Matter, 2017, 29, 084001.	0.7	11
54	In Situ Molecular-Level Observation of Methanol Catalysis at the Waterâ€“Graphite Interface. ACS Applied Materials & Interfaces, 2018, 10, 34265-34271.	4.0	11

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55	Harnessing energy landscape exploration to control the buckling of cylindrical shells. Communications Physics, 2019, 2, .	2.0	10
56	Dynamic Morphologies and Stability of Droplet Interface Bilayers. Physical Review Letters, 2018, 120, 238001.	2.9	9
57	Control of Superselectivity by Crowding in Three-Dimensional Hosts. Physical Review Letters, 2021, 126, 028002.	2.9	9
58	Reconfiguration of multistable 3D ferromagnetic mesostructures guided by energy landscape surveys. Extreme Mechanics Letters, 2021, 48, 101428.	2.0	8
59	Systematic characterization of effect of flow rates and buffer compositions on double emulsion droplet volumes and stability. Lab on A Chip, 2022, 22, 2315-2330.	3.1	8
60	Phase Separation on Bicontinuous Cubic Membranes: Symmetry Breaking, Reentrant, and Domain Faceting. Physical Review Letters, 2016, 117, 058101.	2.9	7
61	Multicomponent flow on curved surfaces: A vielbein lattice Boltzmann approach. Physical Review E, 2019, 100, 063306.	0.8	7
62	Phase transitions on non-uniformly curved surfaces: coupling between phase and location. Soft Matter, 2020, 16, 8069-8077.	1.2	7
63	Nucleation on a sphere: the roles of curvature, confinement and ensemble. Molecular Physics, 2018, 116, 3008-3019.	0.8	6
64	Predicting Hemiwicking Dynamics on Textured Substrates. Langmuir, 2021, 37, 188-195.	1.6	5
65	Nonisomorphic Nucleation Pathways Arising from Morphological Transitions of Liquid Channels. Physical Review Letters, 2012, 108, 126102.	2.9	4
66	Tailoring the multistability of origami-inspired, buckled magnetic structures <i>via</i> compression and creasing. Materials Horizons, 2021, 8, 3324-3333.	6.4	4
67	On the critical Casimir interaction between anisotropic inclusions on a membrane. Physical Chemistry Chemical Physics, 2017, 19, 24188-24196.	1.3	3
68	Multiphase and Multicomponent Flows. Graduate Texts in Physics, 2017, , 331-405.	0.1	3
69	Critical Pressure Asymmetry in the Enclosed Fluid Diode. Langmuir, 2020, 36, 7463-7473.	1.6	3
70	Modeling ternary fluids in contact with elastic membranes. Physical Review E, 2021, 103, 022112.	0.8	3
71	Capillary Bridges on Liquid-Infused Surfaces. Langmuir, 2021, 37, 908-917.	1.6	3
72	Morphological analysis of chiral rod clusters from a coarse-grained single-site chiral potential. Soft Matter, 2019, 15, 8147-8155.	1.2	2

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73	Development of a setup to characterize capillary liquid bridges between liquid infused surfaces. AIP Advances, 2022, 12, .	0.6	1
74	Axisymmetric flows on the torus geometry. Journal of Fluid Mechanics, 2020, 901, .	1.4	0
75	Colloidal clusters on curved surfaces. Frontiers of Nanoscience, 2022, , 129-150.	0.3	0