Vapour-mediated sensing and motility in two-compone

Nature

519, 446-450

DOI: 10.1038/nature14272

Citation Report

#	Article	IF	Citations
2	Tunable transport of drops on a vibrating inclined fiber. Applied Physics Letters, 2015, 107, .	1.5	15
3	Chiral Nematic Structure of Cellulose Nanocrystal Suspensions and Films; Polarized Light and Atomic Force Microscopy. Materials, 2015, 8, 7873-7888.	1.3	91
4	Recent Advances in Controlling the Depositing Morphologies of Inkjet Droplets. ACS Applied Materials & Interfaces, 2015, 7, 28086-28099.	4.0	210
5	Sliding droplets of Xanthan solutions: A joint experimental and numerical study. European Physical Journal E, 2015, 38, 126.	0.7	16
6	Deposition pattern of interacting droplets. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2015, 482, 562-567.	2.3	45
7	Research highlights: surface-based microfluidic control. Lab on A Chip, 2015, 15, 3107-3110.	3.1	1
8	Multi-scale patterns formed by sodium sulphate in a drying droplet of gelatin. Applied Surface Science, 2015, 357, 1000-1006.	3.1	12
9	Directed Autonomic Flow: Functional Motility Fluidics. Advanced Materials, 2015, 27, 7401-7406.	11.1	15
10	Mechanics of tissue compaction. Seminars in Cell and Developmental Biology, 2015, 47-48, 110-117.	2.3	39
11	Full wetting of plasmonic nanopores through two-component droplets. Chemical Science, 2015, 6, 6564-6571.	3.7	11
12	Periodic Precipitation Patterns during Coalescence of Reacting Sessile Droplets. Langmuir, 2015, 31, 11484-11490.	1.6	16
13	Fabrication of Bendable Circuits on a Polydimethylsiloxane (PDMS) Surface by Inkjet Printing Semi-Wrapped Structures. Materials, 2016, 9, 253.	1.3	32
14	Interfacial electrofluidics in confined systems. Scientific Reports, 2016, 6, 26593.	1.6	27
15	Droplet Merging on a Lab-on-a-Chip Platform by Uniform Magnetic Fields. Scientific Reports, 2016, 6, 37671.	1.6	73
16	Oscillatory motion of a camphor grain in a one-dimensional finite region. Physical Review E, 2016, 94, 042215.	0.8	28
17	Breathing to harvest energy as a mechanism towards making a liquid metal beating heart. RSC Advances, 2016, 6, 94692-94698.	1.7	37
18	Ultrasonic spray coating polymer and small molecular organic film for organic light-emitting devices. Scientific Reports, 2016, 6, 37042.	1.6	30
19	Novel polymeric coatings with tailored hydrophobicity to control spot size and morphology in DNA microarray. Sensors and Actuators B: Chemical, 2016, 231, 412-422.	4.0	12

#	Article	IF	Citations
20	Influence of an adjacent droplet on fluid convection inside an evaporating droplet of binary mixture. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2016, 500, 154-165.	2.3	39
21	Mechanisms and Consequences of Macromolecular Phase Separation. Cell, 2016, 165, 1067-1079.	13.5	272
22	Rising beyond elastocapillarity. Soft Matter, 2016, 12, 4886-4890.	1.2	18
23	Ultra-low voltage electrowetting using graphite surfaces. Soft Matter, 2016, 12, 8798-8804.	1.2	55
24	Magnetic Droplet Merging by Hybrid Magnetic Fields. IEEE Magnetics Letters, 2016, 7, 1-5.	0.6	19
25	Uniâ€Directional Transportation on Peristomeâ€Mimetic Surfaces for Completely Wetting Liquids. Angewandte Chemie, 2016, 128, 15212-15216.	1.6	5
26	Insights into Vapor-Mediated Interactions in a Nanocolloidal Droplet System: Evaporation Dynamics and Affects on Self-Assembly Topologies on Macro- to Microscales. Langmuir, 2016, 32, 10334-10343.	1.6	27
27	Controlling the Localization of Liquid Droplets in Polymer Matrices by Evaporative Lithography. Angewandte Chemie, 2016, 128, 10839-10843.	1.6	5
28	Lightâ€Driven Transport of a Liquid Marble with and against Surface Flows. Angewandte Chemie, 2016, 128, 11349-11353.	1.6	21
29	Curvature-driven bubbles or droplets on the spiral surface. Scientific Reports, 2016, 6, 37888.	1.6	24
30	Uniâ€Directional Transportation on Peristomeâ€Mimetic Surfaces for Completely Wetting Liquids. Angewandte Chemie - International Edition, 2016, 55, 14988-14992.	7.2	134
31	Controlling the Localization of Liquid Droplets in Polymer Matrices by Evaporative Lithography. Angewandte Chemie - International Edition, 2016, 55, 10681-10685.	7.2	33
32	Binary-fluid turbulence: Signatures of multifractal droplet dynamics and dissipation reduction. Physical Review E, 2016, 93, 063115.	0.8	12
33	Lightâ€Driven Transport of a Liquid Marble with and against Surface Flows. Angewandte Chemie - International Edition, 2016, 55, 11183-11187.	7.2	132
34	Submicron Patterning of Polymer Brushes: An Unexpected Discovery from Inkjet Printing of Polyelectrolyte Macroinitiators. Journal of the American Chemical Society, 2016, 138, 9009-9012.	6.6	20
35	Universal evolution of a viscousâ€“capillary spreading drop. Soft Matter, 2016, 12, 6073-6078.	1.2	6
36	New Drop Fluidics Enabled by Magnetic-Field-Mediated Elastocapillary Transduction. Langmuir, 2016, 32, 6860-6870.	1.6	27
37	Precise, contactless measurements of the surface tension of picolitre aerosol droplets. Chemical Science, 2016, 7, 274-285.	3.7	93

#	Article	IF	Citations
38	Liquid plasticine: controlled deformation and recovery of droplets with interfacial nanoparticle jamming. Soft Matter, 2016, 12, 1655-1662.	1.2	52
39	Directional transport of high-temperature Janus droplets mediated by structural topography. Nature Physics, 2016, 12, 606-612.	6.5	263
40	Simplicity as a Route to Impact in Materials Research. Advanced Materials, 2017, 29, 1604681.	11.1	15
41	Sprayable superhydrophobic nano-chains coating with continuous self-jumping of dew and melting frost. Scientific Reports, 2017, 7, 40300.	1.6	44
42	Marangoni Bursting: Evaporation-Induced Emulsification of Binary Mixtures on a Liquid Layer. Physical Review Letters, 2017, 118, 074504.	2.9	97
43	Detailed finite element method modeling of evaporating multi-component droplets. Journal of Computational Physics, 2017, 340, 670-687.	1.9	58
44	Marangoni Contraction of Evaporating Sessile Droplets of Binary Mixtures. Langmuir, 2017, 33, 4682-4687.	1.6	87
45	Sprouting Droplets Driven by Physical Effects Alone. Langmuir, 2017, 33, 4235-4241.	1.6	3
46	Spontaneous Droplet Motion on a Periodically Compliant Substrate. Langmuir, 2017, 33, 4942-4947.	1.6	13
47	Remote Droplet Manipulation on Selfâ€Healing Thermally Activated Magnetic Slippery Surfaces. Advanced Materials Interfaces, 2017, 4, 1700009.	1.9	43
48	Deposition Patterns of Two Neighboring Droplets: Onsager Variational Principle Studies. Langmuir, 2017, 33, 5965-5972.	1.6	16
49	Evaporating pure, binary and ternary droplets: thermal effects and axial symmetry breaking. Journal of Fluid Mechanics, 2017, 823, 470-497.	1.4	126
50	Self-Propulsion and Shape Restoration of Aqueous Drops on Sulfobetaine Silane Surfaces. Langmuir, 2017, 33, 6182-6191.	1.6	18
51	Controlled droplet transport to target on a high adhesion surface with multi-gradients. Scientific Reports, 2017, 7, 45687.	1.6	61
52	Living Biomaterials. Accounts of Chemical Research, 2017, 50, 508-513.	7.6	54
53	Interaction of Droplets Separated by an Elastic Film. Langmuir, 2017, 33, 75-81.	1.6	12
54	Adaptive artificial evolution of droplet protocells in a 3D-printed fluidic chemorobotic platform with configurable environments. Nature Communications, 2017, 8, 1144.	5.8	25
55	Spontaneous Oscillations and Synchronization of Active Droplets on a Water Surface via Marangoni Convection. Langmuir, 2017, 33, 12362-12368.	1.6	14

#	Article	IF	Citations
56	Droplets As Liquid Robots. Artificial Life, 2017, 23, 528-549.	1.0	50
57	Organic Primitives. , 2017, , .		45
58	Universal evaporation dynamics of a confined sessile droplet. Applied Physics Letters, 2017, 111, .	1.5	24
59	Dynamic Ordering in a Swarm of Floating Droplets Driven by Solutal Marangoni Effect. Journal of the Physical Society of Japan, 2017, 86, 101004.	0.7	21
60	Vapor-Induced Motion of Liquid Droplets on an Inert Substrate. Physical Review Letters, 2017, 119, 044502.	2.9	40
61	Intermolecular Interactions of Isolated Bio-Oil Compounds and Their Effect on Bitumen Interfaces. ACS Sustainable Chemistry and Engineering, 2017, 5, 7920-7931.	3.2	44
62	Facile synthesis of uniform MoO2/Mo2CTx heteromicrospheres as high-performance anode materials for lithium-ion batteries. Journal of Power Sources, 2017, 363, 392-403.	4.0	34
63	Tunable emergent structures and traveling waves in mixtures of passive and contact-triggered-active particles. Soft Matter, 2017, 13, 6332-6339.	1.2	11
64	Solute-mediated interactions between active droplets. Physical Review E, 2017, 96, 032607.	0.8	52
65	Magnetic Actuation of Drops and Liquid Marbles Using a Deformable Paramagnetic Liquid Substrate. Angewandte Chemie - International Edition, 2017, 56, 16565-16570.	7.2	82
66	Bioinspired Hand-Operated Smart-Wetting Systems Using Smooth Liquid Coatings. Langmuir, 2017, 33, 14445-14450.	1.6	5
67	Mechanism of Contact between a Droplet and an Atomically Smooth Substrate. Physical Review X, 2017, 7, .	2.8	17
68	Modeling the evaporation of sessile multi-component droplets. Journal of Colloid and Interface Science, 2017, 487, 426-436.	5.0	91
69	Magnetic Actuation of Drops and Liquid Marbles Using a Deformable Paramagnetic Liquid Substrate. Angewandte Chemie, 2017, 129, 16792-16797.	1.6	8
70	Plasma as a Surfactant: A New Capillary Effect and a New Wetting Effect Induced by Nanosecond Spark Discharges. IEEE Transactions on Plasma Science, 2017, 45, 3094-3099.	0.6	7
71	Engineering Interfacial Processes at Mini-Micro-Nano Scales Using Sessile Droplet Architecture. Langmuir, 2018, 34, 8423-8442.	1.6	14
72	A droplet-based passive force sensor for remote tactile sensing applications. Applied Physics Letters, 2018, 112, .	1.5	20
73	Wettability control of droplet durotaxis. Soft Matter, 2018, 14, 1417-1426.	1.2	30

#	Article	IF	Citations
74	Period of Oscillatory Motion of a Camphor Boat Determined by the Dissolution and Diffusion of Camphor Molecules. Journal of Physical Chemistry B, 2018, 122, 2610-2615.	1.2	18
75	Intrinsic hydrophilic nature of epitaxial thin-film of rare-earth oxide grown by pulsed laser deposition. Nanoscale, 2018, 10, 3356-3361.	2.8	36
76	Smart zwitterionic sulfobetaine silane surfaces with switchable wettability for aqueous/nonaqueous drops. Journal of Materials Chemistry A, 2018, 6, 2279-2288.	5.2	28
77	Scaling Laws in Directional Spreading of Droplets on Wettability-Confined Diverging Tracks. Langmuir, 2018, 34, 1899-1907.	1.6	41
78	Hydrodynamics of Two Interacting Liquid Droplets of Aqueous Solution inside a Microchannel. Langmuir, 2018, 34, 4626-4633.	1.6	7
79	Oneâ€Step Synthesis of Multifunctional Zincâ€Ironâ€Oxide Hybrid Carbon Nanowires by Chemical Fusion for Supercapacitors and Interfacial Water Marbles. ChemNanoMat, 2018, 4, 546-556.	1.5	13
80	Sessile nanofluid droplet can act like a crane. Journal of Colloid and Interface Science, 2018, 512, 497-510.	5.0	3
81	Coffee-Ring-Free Ultrasonic Spray Coating Single-Emission Layers for White Organic Light-Emitting Devices and Their Energy-Transfer Mechanism. ACS Applied Energy Materials, 2018, 1, 103-112.	2.5	17
82	The Selfâ€Assembly of Cellulose Nanocrystals: Hierarchical Design of Visual Appearance. Advanced Materials, 2018, 30, e1704477.	11.1	363
83	Directional Droplet Propulsion on Gradient Boron Nitride Nanosheet Grid Surface Lubricated with a Vapor Film below the Leidenfrost Temperature. ACS Nano, 2018, 12, 11995-12003.	7.3	13
84	Directional Water Collection in Nanopore Networks. ACS Omega, 2018, 3, 16040-16045.	1.6	5
85	Vapor mediated control of microscale flow in sessile droplets. Physics of Fluids, 2018, 30, 122103.	1.6	24
86	Anti-corrosion coating for metal surfaces based on superhydrophobic electrosprayed carbon layers. Applied Materials Today, 2018, 13, 100-106.	2.3	26
87	Collective Shape Actuation of Polymer Double Emulsions by Solvent Evaporation. ACS Applied Materials & Interfaces, 2018, 10, 31865-31869.	4.0	8
88	Contact Interaction of Two Oil Lenses Floating on Surface of Deionized Water. Langmuir, 2018, 34, 11992-12001.	1.6	7
89	Two-component marangoni-contracted droplets: friction and shape. Soft Matter, 2018, 14, 7724-7730.	1.2	14
90	Smart Liquid Transport on Dual Biomimetic Surface via Temperature Fluctuation Control. Advanced Functional Materials, 2018, 28, 1707490.	7.8	47
91	Enhancing Nucleation and Detachment of Condensed Drops by Hybrid Wetting Surfaces. Journal of Bionic Engineering, 2018, 15, 452-460.	2.7	6

#	Article	IF	Citations
92	Droplet Drying Patterns on Solid Substrates: From Hydrophilic to Superhydrophobic Contact to Levitating Drops. Advances in Condensed Matter Physics, 2018, 2018, 1-24.	0.4	43
93	Continuous and controlled directional water transportation on a hydrophobic/superhydrophobic patterned surface. Chemical Engineering Journal, 2018, 352, 722-729.	6.6	53
94	Transparency in graphene mediated evaporation. 2D Materials, 2018, 5, 041001.	2.0	10
95	Multi-scale patterns formed by sodium sulphate in a drying droplet of gelatin: experiment and simulation in 2-dimensions. Journal of Physics Communications, 2018, 2, 055023.	0.5	1
96	Vapor-Induced Attraction of Floating Droplets. Journal of Physical Chemistry Letters, 2018, 9, 4771-4775.	2.1	15
97	A General Approach for Fluid Patterning and Application in Fabricating Microdevices. Advanced Materials, 2018, 30, e1802172.	11.1	36
98	Self-Synchronous Swinging Motion of a Pair of Autonomous Droplets. ACS Omega, 2019, 4, 12766-12770.	1.6	9
99	Analysis of impact dynamics and deposition of single and multiple PEDOT:PSS solution droplets. Experiments in Fluids, 2019, 60, 1.	1.1	15
100	Drops That Change Their Mind: Spontaneous Reversal from Spreading to Retraction. Langmuir, 2019, 35, 15734-15738.	1.6	23
101	Hydrodynamic and physicochemical phenomena in liquid droplets under the action of nanosecond spark discharges: A review. Advances in Colloid and Interface Science, 2019, 271, 101986.	7.0	11
102	Unidirectional Self-Driving Liquid Droplet Transport on a Monolayer Graphene-Covered Textured Substrate. ACS Applied Materials & Interfaces, 2019, 11, 28562-28570.	4.0	37
103	Programmable unidirectional liquid transport on peristome-mimetic surfaces under liquid environments. Journal of Materials Chemistry A, 2019, 7, 18244-18248.	5.2	22
104	Interactions of Oil Drops Induced by the Lateral Capillary Force and Surface Tension Gradients. Langmuir, 2019, 35, 14967-14973.	1.6	3
105	Bioinspired functions. , 2019, , 147-246.		1
106	Periodic collective behaviors of organic solvent droplets on the surface of aqueous surfactant solutions. , 2019, , .		0
109	Life-Like Motion of Oil Drops at the Airâ€“Liquid Interface. Langmuir, 2019, 35, 16146-16152.	1.6	13
110	Atomic-like motion of coverslips at the air-water interface. Colloids and Interface Science Communications, 2019, 32, 100197.	2.0	3
111	Ricocheting Droplets Moving on Superâ€Repellent Surfaces. Advanced Science, 2019, 6, 1901846.	5.6	20

#	Article	IF	Citations
112	Investigation of Induced Charge Mechanism on a Rod Electrode. Electronics (Switzerland), 2019, 8, 977.	1.8	6
113	Dynamic Behaviour in Microcompartments. Chemistry - A European Journal, 2019, 25, 16440-16450.	1.7	9
114	Subtractive manufacturing of stable hierarchical micro-nano structures on AA5052 sheet with enhanced water repellence and durable corrosion resistance. Materials and Design, 2019, 183, 108152.	3.3	149
115	Process Design Kit and Design Automation for Flexible Hybrid Electronics. , 2019, , .		0
116	Optical droplets sorting assisted by superhydrophobic surface with hydrophilic patterns. International Journal of Heat and Mass Transfer, 2019, 143, 118560.	2.5	6
117	Peculiar Wetting of N,N-Dimethylformamide: Expansion, Contraction, and Self-Running. Journal of Physical Chemistry C, 2019, 123, 24477-24486.	1.5	14
118	Directional pumping of water and oil microdroplets on slippery surface. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 2482-2487.	3.3	119
119	Controlling self-assembly and buckling in nano fluid droplets through vapour mediated interaction of adjacent droplets. Journal of Colloid and Interface Science, 2019, 541, 348-355.	5.0	9
120	Biological and Engineered Topological Droplet Rectifiers. Advanced Materials, 2019, 31, e1806501.	11.1	113
121	Vapor-induced motion of two pure liquid droplets. Soft Matter, 2019, 15, 2135-2139.	1.2	17
122	Designing biomimetic liquid diodes. Soft Matter, 2019, 15, 1902-1915.	1.2	55
123	Dancing performance of organic droplets in aqueous surfactant solutions. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2019, 566, 141-147.	2.3	16
124	Dewetting of liquid film via vapour-mediated Marangoni effect. Journal of Fluid Mechanics, 2019, 872, 100-114.	1.4	20
125	Bioinspired inner microstructured tube controlled capillary rise. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 12704-12709.	3.3	92
126	Vapor-Mediated versus Substrate-Mediated Interactions between Volatile Droplets. Langmuir, 2019, 35, 7060-7065.	1.6	17
127	An Easy Route to Wettability Changes of Polyethylene Terephthalateâ€“Silicon Oxide Substrate Films for High Barrier Applications, Surface-Modified with a Self-Assembled Monolayer of Fluoroalkylsilanes. Polymers, 2019, 11, 257.	2.0	3
128	In situ reversible underwater superwetting transition by electrochemical atomic alternation. Nature Communications, 2019, 10, 1212.	5.8	31
129	Physics of active emulsions. Reports on Progress in Physics, 2019, 82, 064601.	8.1	176

#	Article	IF	Citations
130	Propulsion and Mixing Generated by the Digitized Gait of Caenorhabditis elegans. Physical Review Applied, 2019, 11, .	1.5	0
131	Formation, growth, and saturation of dry holes in thick liquid films under vapor-mediated Marangoni effect. Physics of Fluids, 2019, 31, .	1.6	14
132	Investigating the Role of Glass and Quartz Substrates on the Formation of Interfacial Droplets. Journal of Physical Chemistry C, 2019, 123, 1151-1159.	1.5	13
133	Spontaneous water adsorption-desorption oscillations in mesoporous thin films. Journal of Colloid and Interface Science, 2019, 537, 407-413.	5.0	11
134	Capillarity-driven migration of small objects: A critical review. European Physical Journal E, 2019, 42, 1.	0.7	45
135	Coexistence and Sudden Entrapment between Two Dissimilar, Miscible Oil Lenses. Langmuir, 2019, 35, 911-920.	1.6	3
137	Control of solutal Marangoni-driven vortical flows and enhancement of mixing efficiency. Journal of Colloid and Interface Science, 2020, 561, 408-415.	5.0	31
138	Switchable Direction of Liquid Transport via an Anisotropic Microarray Surface and Thermal Stimuli. ACS Nano, 2020, 14, 1436-1444.	7.3	34
139	Autonomous mesoscale positioning emerging from myelin filament self-organization and Marangoni flows. Nature Communications, 2020, 11, 4800.	5.8	25
140	Cell Migration Driven by Self-Generated Integrin Ligand Gradient on Ligand-Labile Surfaces. Current Biology, 2020, 30, 4022-4032.e5.	1.8	21
141	Nonmonotonic contactless manipulation of binary droplets via sensing of localized vapor sources on pristine substrates. Science Advances, 2020, 6, .	4.7	19
142	Efficient All-Blade-Coated Quantum Dot Light-Emitting Diodes through Solvent Engineering. Journal of Physical Chemistry Letters, 2020, 11, 9019-9025.	2.1	10
143	Effect of Partial Dehydration on Freeze-Drying of Aqueous Nanocellulose Suspension. ACS Sustainable Chemistry and Engineering, 2020, 8, 11389-11395.	3.2	49
144	Predatorâ€“prey interactions between droplets driven by non-reciprocal oil exchange. Nature Chemistry, 2020, 12, 1136-1142.	6.6	108
145	Oil droplets cut to the chase. Nature Chemistry, 2020, 12, 1091-1093.	6.6	0
146	Polymers producing hydrogen. Nature Chemistry, 2020, 12, 1093-1095.	6.6	6
147	Directed motion of two-component droplets on wedge-shaped composite copper surfaces without back-end pinning. Microfluidics and Nanofluidics, 2020, 24, 1.	1.0	3
148	Effect of a product on spontaneous droplet motion driven by a chemical reaction of surfactant. Physical Review E, 2020, 102, 023102.	0.8	7

#	Article	IF	Citations
149	Photopyroelectric microfluidics. Science Advances, 2020, 6, .	4.7	76
150	Directional liquid dynamics of interfaces with superwettability. Science Advances, 2020, 6, .	4.7	146
151	Spontaneous deformation and fission of oil droplets on an aqueous surfactant solution. Physical Review E, 2020, 102, 042603.	0.8	8
152	Ferrofluid Droplets as Liquid Microrobots with Multiple Deformabilities. Advanced Functional Materials, 2020, 30, 2000138.	7.8	69
153	Interface-mediated spontaneous symmetry breaking and mutual communication between drops containing chemically active particles. Nature Communications, 2020, 11, 2210.	5.8	27
154	Recent developments in smart window engineering: from antibacterial activity to self-cleaning behavior. , 2020, , 227-263.		1
155	Enhancement of mixing in a viscous, non-volatile droplet using a contact-free vapor-mediated interaction. Physical Chemistry Chemical Physics, 2020, 22, 14570-14578.	1.3	5
156	Micro-Nano Hierarchical Dendritic Structures for Droplet Curve Manipulation: Implications for Microfluidic Devices. ACS Applied Nano Materials, 2020, 3, 6524-6530.	2.4	17
157	Advances towards programmable droplet transport on solid surfaces and its applications. Chemical Society Reviews, 2020, 49, 7879-7892.	18.7	86
158	How many ways a cell can move: the modes of self-propulsion of an active drop. Soft Matter, 2020, 16, 3106-3124.	1.2	12
159	Evaporation-induced transport of a pure aqueous droplet by an aqueous mixture droplet. Physics of Fluids, 2020, 32, .	1.6	23
160	Biomimetic metal surfaces inspired by lotus and reed leaves for manipulation of microdroplets or fluids. Applied Surface Science, 2020, 519, 146052.	3.1	27
161	Existence and non-existence of asymmetrically rotating solutions to a mathematical model of self-propelled motion. Japan Journal of Industrial and Applied Mathematics, 2020, 37, 883-912.	0.5	3
162	Self-Excited Motions of Volatile Drops on Swellable Sheets. Physical Review Letters, 2020, 124, 258002.	2.9	52
163	On a simple model that explains inversion of a self-propelled rotor under periodic stop-and-release-operations. Chaos, 2020, 30, 023105.	1.0	5
164	Self-Propelled Water Drops on Bare Glass Substrates in Air: Fast, Controllable, and Easy Transport Powered by Surfactants. Langmuir, 2020, 36, 6916-6923.	1.6	8
165	Liquid metal droplet robot. Applied Materials Today, 2020, 19, 100597.	2.3	57
166	Thin-film model of droplet durotaxis. European Physical Journal: Special Topics, 2020, 229, 265-273.	1.2	6

#	Article	IF	Citations
167	Moses Effect: Splitting a Sessile Droplet Using a Vapor-Mediated Marangoni Effect Leading to Designer Surface Patterns. Langmuir, 2020, 36, 1279-1287.	1.6	13
168	Hierarchical Micro-Nanostructured Surfaces for Isotropic/Anisotropic Liquid Transport. Langmuir, 2020, 36, 1569-1573.	1.6	3
169	Bioinspired Smart Liquid Directional Transport Control. Langmuir, 2020, 36, 667-681.	1.6	31
170	Droplet Manipulation: Magically Cut Apart Microdroplet by Smart Nanofibrils Wire. Advanced Materials Interfaces, 2020, 7, 2000161.	1.9	5
171	Ultrafast spontaneous driving of water droplets on monolayer graphene-covered gradient nanopillared surfaces. Applied Surface Science, 2020, 515, 145976.	3.1	16
172	Precursor-Film-Mediated Thermocapillary Motion of Low-Surface-Tension Microdroplets. Langmuir, 2020, 36, 5096-5105.	1.6	6
173	Confined interface vibration for femtoliter droplets generation and manipulation. Nano Select, 2021, 2, 338-345.	1.9	5
174	Creation of Topological Ultraslippery Surfaces for Droplet Motion Control. ACS Nano, 2021, 15, 2589-2599.	7.3	93
175	Water droplet bouncing dynamics. Nano Energy, 2021, 81, 105647.	8.2	57
176	Onsager principle in polymer dynamics. Progress in Polymer Science, 2021, 112, 101339.	11.8	26
177	Vapor mediated interaction of two condensing droplets. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 608, 125555.	2.3	7
178	Directed self-propulsion of droplets on surfaces absent of gradients for cargo transport. Journal of Colloid and Interface Science, 2021, 586, 469-478.	5.0	9
179	Analysis of vapor-driven solutal Marangoni flows inside a sessile droplet. International Journal of Heat and Mass Transfer, 2021, 164, 120499.	2.5	11
180	Realization of Selfâ€Rotating Droplets Based on Liquid Metal. Advanced Materials Interfaces, 2021, 8, 2001756.	1.9	4
181	Effective Strategies for Droplet Transport on Solid Surfaces. Advanced Materials Interfaces, 2021, 8, 2001441.	1.9	19
182	Vapor-Induced Liquid Collection and Microfluidics on Superlyophilic Substrates. ACS Applied Materials & Interfaces, 2021, 13, 3454-3462.	4.0	8
183	Analysis of augmented droplet transport during electrowetting over triangular coplanar electrode array. Journal of Electrostatics, 2021, 109, 103541.	1.0	8
184	A Review on the Evaporation Dynamics of Sessile Drops of Binary Mixtures: Challenges and Opportunities. Fluid Dynamics and Materials Processing, 2021, 17, 253-284.	0.5	11

#	Article	IF	Citations
185	Design of Continuous Transport of the Droplet by the Contact-Boiling Regime. Langmuir, 2021, 37, 553-560.	1.6	8
186	Initial-position-driven opposite directional transport of a water droplet on a wedge-shaped groove. Nanoscale, 2021, 13, 15963-15972.	2.8	7
187	How to Control Powder Alignment to Maximize Functionality and Performance of Color Cosmetics and Sunscreen. Journal of Oleo Science, 2021, 70, 1081-1091.	0.6	1
188	Dynamics of hygroscopic aqueous solution droplets undergoing evaporation or vapour absorption. Journal of Fluid Mechanics, 2021, 912, .	1.4	13
189	Marangoni fireworks: Atomization dynamics of binary droplets on an oil pool. Physics of Fluids, 2021, 33, .	1.6	10
190	Photothermally Caused Propylene Glycolâ€“Water Binary Droplet Evaporation on a Hydrophobic Surface. Industrial & Engineering Chemistry Research, 2021, 60, 4153-4167.	1.8	3
191	Wetting of Two-Component Drops: Marangoni Contraction Versus Autophobing. Langmuir, 2021, 37, 3605-3611.	1.6	12
192	Enhanced Movement of Two-Component Droplets on a Wedge-Shaped Ag/Cu Surface by a Wettability Gradient. ACS Applied Materials & Interfaces, 2021, 13, 15857-15865.	4.0	20
193	A Wettingâ€Enabledâ€Transfer (WET) Strategy for Precise Surface Patterning of Organohydrogels. Advanced Materials, 2021, 33, e2008557.	11.1	36
194	Spontaneous Motion and Rotation of Acid Droplets on the Surface of a Liquid Metal. Langmuir, 2021, 37, 4370-4379.	1.6	7
195	Crystal critters: Self-ejection of crystals from heated, superhydrophobic surfaces. Science Advances, 2021, 7, .	4.7	31
196	Global existence of a unique solution and a bimodal travelling wave solution for the 1D particle-reaction-diffusion system. Journal of Physics Communications, 2021, 5, 055016.	0.5	2
197	Bioinspired micro- and nanostructures used for fog harvesting. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	1.1	10
198	Mesoscopic Lattice Boltzmann Modeling of the Liquid-Vapor Phase Transition. Physical Review Letters, 2021, 126, 244501.	2.9	29
199	How Fast do Microdroplets Generated During Liquidâ€“Liquid Phase Separation Move in a Confined 2D Space?. Energy & Fuels, 2021, 35, 11257-11270.	2.5	3
200	Periodic bouncing of a plasmonic bubble in a binary liquid by competing solutal and thermal Marangoni forces. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	15
201	Controlling the wetting and evaporation dynamics of non-ideal volatile binary solutions. Journal of Colloid and Interface Science, 2021, 592, 319-328.	5.0	10
203	Evaporation of Binary-Mixture Liquid Droplets: The Formation of Picoliter Pancakelike Shapes. Physical Review Letters, 2021, 127, 024501.	2.9	27

#	Article	IF	Citations
204	Controlling Surface Wettability for Automated In Situ Array Synthesis and Direct Bioscreening. Advanced Materials, 2021, 33, 2102349.	11.1	5
205	Liquid Crystalline Microdroplets of Graphene Oxide via Microfluidics. Chinese Journal of Polymer Science (English Edition), 2021, 39, 1657-1664.	2.0	4
206	Thermal Marangoni Flow Impacts the Shape of Single Component Volatile Droplets on Thin, Completely Wetting Substrates. Physical Review Letters, 2021, 127, 024502.	2.9	17
207	Droplet tilings for rapid exploration of spatially constrained many-body systems. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	4
208	Motion of generated dumbbell-shaped satellite droplets during liquid dielectrophoresis. Journal of Micromechanics and Microengineering, 2021, 31, 095006.	1.5	6
209	Phase Separation of an Evaporating Ternary Solution in a Hele-Shaw Cell. Langmuir, 2021, 37, 10450-10460.	1.6	3
210	Evaporation-Induced Diffusion Acceleration in Liquid-Filled Porous Materials. ACS Omega, 2021, 6, 21646-21654.	1.6	8
211	Enhanced Solutal Marangoni Flow Using Ultrasound-Induced Heating for Rapid Digital Microfluidic Mixing. Frontiers in Physics, 2021, 9, .	1.0	4
212	Early stage of delayed coalescence of soluble paired droplets: A numerical study. Physics of Fluids, 2021, 33, .	1.6	7
213	Selfâ€Driven Droplet Vehicle for Material Patterning. Advanced Materials Interfaces, 2021, 8, 2101309.	1.9	5
214	Rebound Behaviors of Multiple Droplets Simultaneously Impacting a Superhydrophobic Surface. Langmuir, 2021, 37, 11233-11241.	1.6	11
215	Morphological Sensitivity and Falling Behavior of Paper V-Shapes. Artificial Life, 2021, , 1-16.	1.0	0
216	Spatio-temporal modulation of self-assembled central aggregates of buoyant colloids in sessile droplets using vapor mediated interactions. Journal of Colloid and Interface Science, 2021, 598, 136-146.	5.0	4
217	Lubricant self-replenishing slippery surface with prolonged service life for fog harvesting. Friction, 2022, 10, 1676-1692.	3.4	2
218	Liquid crystalâ€“based open surface microfluidics manipulate liquid mobility and chemical composition on demand. Science Advances, 2021, 7, eabi7607.	4.7	39
219	A reactionâ€“diffusion particle model for clustering of self-propelled oil droplets on a surfactant solution. Physica D: Nonlinear Phenomena, 2021, 425, 132949.	1.3	3
220	Universal spatio-topological control of crystallization in sessile droplets using non-intrusive vapor mediation. Physics of Fluids, 2021, 33, 012101.	1.6	8
221	The contact angle of an evaporating droplet of a binary solution on a super wetting surface. Soft Matter, 2021, 17, 7932-7939.	1.2	7

#	Article	IF	Citations
222	Propelling microdroplets generated and sustained by liquidâ€“liquid phase separation in confined spaces. Soft Matter, 2021, 17, 5362-5374.	1.2	10
223	Visualization of Motion Inside Droplets. IITK Directions, 2018, , 69-77.	0.2	2
224	Delayed coalescence of surfactant containing sessile droplets. Physical Review Fluids, 2018, 3, .	1.0	15
225	Solutal Marangoni flow as the cause of ring stains from drying salty colloidal drops. Physical Review Fluids, 2019, 4, .	1.0	50
226	Reality-Assisted Evolution of Soft Robots through Large-Scale Physical Experimentation: A Review. Artificial Life, 2021, 26, 484-506.	1.0	26
227	Counterintuitive Ballistic and Directional Liquid Transport on a Flexible Droplet Rectifier. Research, 2020, 2020, 6472313.	2.8	16
228	Droplet Ejection and Liquid Jetting by Visible Laser Irradiation in Pyroâ€Photovoltaic Feâ€Doped LiNbO₃ Platforms. Advanced Materials Interfaces, 2021, 8, 2101164.	1.9	9
229	Superwetting patterned PDMS/PMMA materials by facile one-step electro-spraying for signal expression and liquid transportation. Chemical Engineering Journal, 2022, 431, 133206.	6.6	11
230	Fundamental Fluid Dynamics Challenges in Inkjet Printing. Annual Review of Fluid Mechanics, 2022, 54, 349-382.	10.8	207
231	Contactless transport of sessile droplets. Physics of Fluids, 2021, 33, 112115.	1.6	10
232	New <i>in vitro</i> SPF Evaluation Method for Hydrophilic Sunscreen Samples. Journal of Oleo Science, 2022, 71, 321-331.	0.6	1
233	Waterâ€“propylene glycol sessile droplet shapes and migration: Marangoni mixing and separation of scales. Journal of Fluid Mechanics, 2022, 933, .	1.4	3
234	Complex Polymeric Microstructures with Programmable Architecture via Pickering Emulsion-Templated In Situ Polymerization. Langmuir, 2022, 38, 1406-1421.	1.6	4
235	Molecular origin of fast evaporation at the solidâ€“waterâ€“vapor line in a sessile droplet. Nanoscale, 2022, 14, 2729-2734.	2.8	7
237	Self-Moving blooming drops of dimethyl sulfoxide containing benzyne intermediate for solutal transport. Journal of Molecular Liquids, 2022, 350, 118514.	2.3	2
238	Ultraslippery/hydrophilic patterned surfaces for efficient fog harvest. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 640, 128398.	2.3	28
239	A Biocompatible Vibrationâ€Actuated Omniâ€Droplets Rectifier with Large Volume Range Fabricated by Femtosecond Laser. Advanced Materials, 2022, 34, e2108567.	11.1	40
240	Taylor dispersion in thin liquid films of volatile mixtures: A quantitative model for Marangoni contraction. Physical Review Fluids, 2022, 7, .	1.0	3

#	Article	IF	Citations
241	Vapor Absorption and Marangoni Flows in Evaporating Drops. Langmuir, 2022, 38, 2185-2191.	1.6	4
242	Circadian humidity fluctuation induced capillary flow for sustainable mobile energy. Nature Communications, 2022, 13, 1291.	5.8	12
243	DSRP Theory: A Primer. Systems, 2022, 10, 26.	1.2	10
244	Distinctions Organize Information in Mind and Nature: Empirical Findings of Identityâ€“Other Distinctions (D) in Cognitive and Material Complexity. Systems, 2022, 10, 41.	1.2	4
245	The â€œFish Tankâ€•Experiments: Metacognitive Awareness of Distinctions, Systems, Relationships, and Perspectives (DSRP) Significantly Increases Cognitive Complexity. Systems, 2022, 10, 29.	1.2	4
246	Durably Self-Sustained Droplet on a Fully Miscible Liquid Film. Langmuir, 2022, 38, 3993-4000.	1.6	2
247	Systems Organize Information in Mind and Nature: Empirical Findings of Part-Whole Systems (S) in Cognitive and Material Complexity. Systems, 2022, 10, 44.	1.2	2
248	Wetting and evaporation of multicomponent droplets. Physics Reports, 2022, 960, 1-37.	10.3	56
249	Autonomous droplet transport on a chemically homogenous superhydrophilic surface. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 643, 128798.	2.3	4
250	Contactless Discharge-Driven Droplet Motion on a Nonslippery Polymer Surface. Langmuir, 2021, 37, 14697-14702.	1.6	4
251	Perspectives Organize Information in Mind and Nature: Empirical Findings of Point-View Perspective (P) in Cognitive and Material Complexity. Systems, 2022, 10, 52.	1.2	8
252	The investigation of droplet directional self-transport ability on the slippery liquid-infused surface with anisotropic structure. Progress in Organic Coatings, 2022, 168, 106857.	1.9	6
253	Experimental Study on the Interaction of Sessile Double Droplets on Hydrophobic Surface. Modeling and Simulation, 2022, 11, 475-486.	0.0	0
254	Marangoni spreading and contracting three-component droplets on completely wetting surfaces. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2120432119.	3.3	13
255	A Bionic Interface to Suppress the Coffeeâ€Ring Effect for Reliable and Flexible Perovskite Modules with a Nearâ€90% Yield Rate. Advanced Materials, 2022, 34, e2201840.	11.1	54
256	Relationships Organize Information in Mind and Nature: Empirical Findings of Actionâ€“Reaction Relationships (R) in Cognitive and Material Complexity. Systems, 2022, 10, 71.	1.2	1
257	Three-Dimensional Droplet Manipulation with Electrostatic Levitation. Analytical Chemistry, 2022, 94, 8217-8225.	3.2	12
258	Droplets in underlying chemical communication recreate cell interaction behaviors. Nature Communications, 2022, 13, .	5.8	11

#	Article	IF	Citations
259	Chiral photonic materials self-assembled by cellulose nanocrystals. Current Opinion in Solid State and Materials Science, 2022, 26, 101017.	5.6	21
260	A numerical study of an impacting compound droplet undergoing thermocapillary convection. Acta Mechanica, 0, , .	1.1	3
261	Hierarchical polymeric hollow microspheres with size tunable single holes and their application as catalytic microreactor. Colloid and Polymer Science, 2022, 300, 1101-1109.	1.0	3
262	Hydrodynamic metamaterials for flow manipulation: Functions and prospects. Chinese Physics B, 2022, 31, 098101.	0.7	8
263	Slippery concrete for sanitation. Progress in Organic Coatings, 2022, 171, 107022.	1.9	8
264	Bouncing dynamics of impact droplets on bioinspired surfaces with mixed wettability and directional transport control. Journal of Colloid and Interface Science, 2022, 626, 193-207.	5.0	11
265	Gradient monolayered porous membrane for liquid manipulation: from fabrication to application. Nanoscale Advances, 2022, 4, 3495-3503.	2.2	2
266	Bioinspired materials for droplet manipulation: Principles, methods and applications. , 2022, 1, 11-37.		65
267	How liquidâ€“liquid phase separation induces active spreading. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	6
268	Pairing-induced motion of source and inert particles driven by surface tension. Physical Review E, 2022, 106, .	0.8	0
269	Optimal transport and control of active drops. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	7
270	Oscillations of Drops with Mobile Contact Lines on the International Space Station: Elucidation of Terrestrial Inertial Droplet Spreading. Physical Review Letters, 2022, 129, .	2.9	7
271	Light control of droplets on photo-induced charged surfaces. National Science Review, 2023, 10, .	4.6	26
272	Distributed evaporation of water-in-oil emulsion drops on solid surfaces. Physics of Fluids, 2022, 34, .	1.6	5
273	On the Measurement of Local Vapor Concentration Around Sessile Water Droplet with High Spatiotemporal Resolution. SSRN Electronic Journal, 0, , .	0.4	0
274	Spatial programming of self-organizing chemical systems using sustained physicochemical gradients from reaction, diffusion and hydrodynamics. Physical Chemistry Chemical Physics, 2022, 24, 23980-24001.	1.3	11
275	Dynamic ordering caused by a source-sink relation between two droplets. Soft Matter, 2022, 18, 6465-6474.	1.2	2
276	Scale-reconfigurable miniature ferrofluidic robots for negotiating sharply variable spaces. Science Advances, 2022, 8, .	4.7	36

#	Article	IF	Citations
277	Factors to control the alignment of surface treated titanium dioxide powders to maximize performance of sunscreens. International Journal of Cosmetic Science, 0, , .	1.2	0
278	A review on control of droplet motion based on wettability modulation: principles, design strategies, recent progress, and applications. Science and Technology of Advanced Materials, 2022, 23, 473-497.	2.8	10
279	Near-infrared-laser-navigated dancing bubble within water via a thermally conductive interface. Nature Communications, 2022, 13, .	5.8	5
280	Patterning Wettability for Open-Surface Fluidic Manipulation: Fundamentals and Applications. Chemical Reviews, 2022, 122, 16752-16801.	23.0	28
281	We the droplets: A constitutional approach to active and self-propelled emulsions. Current Opinion in Colloid and Interface Science, 2022, 61, 101623.	3.4	15
282	High-speed magnetic control of water transport in superhydrophobic tubular actuators. NPG Asia Materials, 2022, 14, .	3.8	5
283	Scalable Ultrathin Allâ€Organic Polymer Dielectric Films for Highâ€Temperature Capacitive Energy Storage. Advanced Materials, 2022, 34, .	11.1	53
284	Precursor film of self-propelled droplets: Inducing motion of a static droplet. Journal of Molecular Liquids, 2022, 368, 120729.	2.3	2
285	Multiple Marangoni flows in a binary mixture sessile droplet. Physics of Fluids, 2022, 34, .	1.6	10
286	Sliding droplets as the chemical version for identifying the number and type of needles in a haystack. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	1
287	Surfing of particles and droplets on the free surface of a liquid: a review. European Physical Journal: Special Topics, 2023, 232, 735-768.	1.2	3
288	Oil-on-water droplets faceted and stabilized by vortex halos in the subphase. Proceedings of the National Academy of Sciences of the United States of America, 2023, 120, .	3.3	3
289	Photoinduced collective motion of oil droplets and concurrent pattern formation in surfactant solution. Cell Reports Physical Science, 2023, 4, 101222.	2.8	3
290	A General Vaporâ€Induced Coating Approach for Layerâ€controlled Organic Single Crystals. Advanced Functional Materials, 2023, 33, .	7.8	6
291	On the measurement of local vapor concentration around sessile water droplet with high spatiotemporal resolution. International Journal of Multiphase Flow, 2023, 161, 104397.	1.6	0
292	Sequentially Selective Coalescence of Binary Self-Propelled Droplets upon Collective Motion. Langmuir, 2023, 39, 2073-2079.	1.6	3
293	Load-responsive bionic kirigami structures for high-efficient fog harvesting. Chemical Engineering Journal, 2023, 464, 142549.	6.6	7
294	Evaporation-driven directed motion of droplets on the glass. Surfaces and Interfaces, 2023, 38, 102811.	1.5	1

#	Article	IF	Citations
295	Learning hydrodynamic equations for active matter from particle simulations and experiments. Proceedings of the National Academy of Sciences of the United States of America, 2023, 120, .	3.3	12
296	Leafâ€Inspired Patterned Organohydrogel Surface for Ultrawide Timeâ€Range Open Biosensing. Advanced Science, 2023, 10, .	5.6	7
298	Drying Drops of Colloidal Dispersions. Annual Review of Chemical and Biomolecular Engineering, 2023, 14, 53-83.	3.3	7
299	Fundamentals and Manipulation of Bare Droplets and Liquid Marbles as Open Microfluidic Platforms. Processes, 2023, 11, 983.	1.3	2
300	On the Stability and Behavioral Diversity of Single and Collective Bernoulli Balls. Artificial Life, 0, , 1-19.	1.0	2
301	Toward droplets displaying life-like interaction behaviors. Biomicrofluidics, 2023, 17, 021302.	1.2	0
307	Innovations in exploiting photo-controlled Marangoni flows for soft matter actuations. Soft Matter, 2023, 19, 5223-5243.	1.2	1
313	Dancing Delicacies: Designing Computational Food for Dynamic Dining Trajectories. , 2023, , .		1
333	Photo-controllable azobenzene microdroplets on an open surface and their application as transporters. Materials Horizons, 2024, 11, 1495-1501.	6.4	0