

Frieder Mugele

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9011912/publications.pdf>

Version: 2024-02-01

237
papers

11,332
citations

26567

56
h-index

37111

96
g-index

258
all docs

258
docs citations

258
times ranked

9905
citing authors

#	ARTICLE	IF	CITATIONS
1	Electrowetting: from basics to applications. <i>Journal of Physics Condensed Matter</i> , 2005, 17, R705-R774.	0.7	1,650
2	Capillary forces in tapping mode atomic force microscopy. <i>Physical Review B</i> , 2002, 66, .	1.1	260
3	Direct Observation of a Nonequilibrium Electro-Osmotic Instability. <i>Physical Review Letters</i> , 2008, 101, 236101.	2.9	260
4	Suppressing the coffee stain effect: how to control colloidal self-assembly in evaporating drops using electrowetting. <i>Soft Matter</i> , 2011, 7, 4954.	1.2	252
5	Droplets Formation and Merging in Two-Phase Flow Microfluidics. <i>International Journal of Molecular Sciences</i> , 2011, 12, 2572-2597.	1.8	246
6	Fundamental challenges in electrowetting: from equilibrium shapes to contact angle saturation and drop dynamics. <i>Soft Matter</i> , 2009, 5, 3377.	1.2	229
7	Wettability-independent bouncing on flat surfaces mediated by thin air films. <i>Nature Physics</i> , 2015, 11, 48-53.	6.5	197
8	Microfluidic mixing through electrowetting-induced droplet oscillations. <i>Applied Physics Letters</i> , 2006, 88, 204106.	1.5	192
9	How to make sticky surfaces slippery: Contact angle hysteresis in electrowetting with alternating voltage. <i>Applied Physics Letters</i> , 2008, 92, .	1.5	177
10	Hard and soft colloids at fluid interfaces: Adsorption, interactions, assembly & rheology. <i>Advances in Colloid and Interface Science</i> , 2015, 222, 215-227.	7.0	172
11	Direct observation of ionic structure at solid-liquid interfaces: a deep look into the Stern Layer. <i>Scientific Reports</i> , 2014, 4, 4956.	1.6	160
12	On the Shape of Surface Nanobubbles. <i>Langmuir</i> , 2010, 26, 260-268.	1.6	147
13	Interface Profiles near Three-Phase Contact Lines in Electric Fields. <i>Physical Review Letters</i> , 2003, 91, 086101.	2.9	138
14	Electrical Switching of Wetting States on Superhydrophobic Surfaces: A Route Towards Reversible Cassie-to-Wenzel Transitions. <i>Physical Review Letters</i> , 2011, 106, 014501.	2.9	137
15	Hydrodynamic resistance of single confined moving drops in rectangular microchannels. <i>Lab on A Chip</i> , 2009, 9, 982-990.	3.1	125
16	Electrowetting driven optical switch and tunable aperture. <i>Optics Express</i> , 2011, 19, 15525.	1.7	122
17	Dynamics of Collapse of Air Films in Drop Impact. <i>Physical Review Letters</i> , 2012, 108, 074505.	2.9	121
18	Ion adsorption-induced wetting transition in oil-water-mineral systems. <i>Scientific Reports</i> , 2015, 5, 10519.	1.6	119

#	ARTICLE	IF	CITATIONS
19	Fabrication, mechanical testing and application of high-pressure glass microreactor chips. <i>Chemical Engineering Journal</i> , 2007, 131, 163-170.	6.6	117
20	Volume phase transition of "smart" microgels in bulk solution and adsorbed at an interface: A combined AFM, dynamic light, and small angle neutron scattering study. <i>Polymer</i> , 2007, 48, 245-254.	1.8	115
21	Equilibrium drop surface profiles in electric fields. <i>Journal of Physics Condensed Matter</i> , 2007, 19, 375112.	0.7	114
22	Electrostatic stabilization of fluid microstructures. <i>Applied Physics Letters</i> , 2002, 81, 2303-2305.	1.5	113
23	Energy Harvesting from Drops Impacting onto Charged Surfaces. <i>Physical Review Letters</i> , 2020, 125, 078301.	2.9	104
24	Charge Trapping-Based Electricity Generator (CTEG): An Ultrarobust and High Efficiency Nanogenerator for Energy Harvesting from Water Droplets. <i>Advanced Materials</i> , 2020, 32, e2001699.	11.1	99
25	Nanofluidics: Viscous Dissipation in Layered Liquid Films. <i>Physical Review Letters</i> , 2003, 91, 166104.	2.9	98
26	Mechanical properties of wet granular materials. <i>Journal of Physics Condensed Matter</i> , 2005, 17, S477-S502.	0.7	94
27	Microfluidics as a functional tool for cell mechanics. <i>Biomicrofluidics</i> , 2009, 3, 012006.	1.2	90
28	Drops on functional fibers: from barrels to clamshells and back. <i>Soft Matter</i> , 2011, 7, 5138.	1.2	90
29	Salinity-Dependent Contact Angle Alteration in Oil/Brine/Silicate Systems: the Critical Role of Divalent Cations. <i>Langmuir</i> , 2017, 33, 3349-3357.	1.6	87
30	Capillary Forces between Spherical Particles Floating at a Liquid-Liquid Interface. <i>Langmuir</i> , 2005, 21, 11190-11200.	1.6	85
31	Optofluidic lens with tunable focal length and asphericity. <i>Scientific Reports</i> , 2014, 4, 6378.	1.6	85
32	Trapping of drops by wetting defects. <i>Nature Communications</i> , 2014, 5, 3559.	5.8	84
33	Trends in Microfluidics with Complex Fluids. <i>ChemPhysChem</i> , 2003, 4, 1291-1298.	1.0	78
34	Roadmap for optofluidics. <i>Journal of Optics (United Kingdom)</i> , 2017, 19, 093003.	1.0	78
35	Class Transition and Aging in Dense Suspensions of Thermosensitive Microgel Particles. <i>Physical Review Letters</i> , 2008, 101, 238301.	2.9	76
36	Electrowetting: A versatile tool for drop manipulation, generation, and characterization. <i>Advances in Colloid and Interface Science</i> , 2010, 161, 115-123.	7.0	75

#	ARTICLE	IF	CITATIONS
37	Capillary Stokes drift: a new driving mechanism for mixing in AC-electrowetting. Lab on A Chip, 2011, 11, 2011.	3.1	75
38	Squeeze-out and wear: fundamental principles and applications. Journal of Physics Condensed Matter, 2004, 16, R295-R355.	0.7	73
39	Electrowetting: a convenient way to switchable wettability patterns. Journal of Physics Condensed Matter, 2005, 17, S559-S576.	0.7	73
40	Electrowetting-Induced Oil Film Entrapment and Instability. Physical Review Letters, 2006, 97, 167801.	2.9	73
41	Characterization of the surface charge distribution on kaolinite particles using high resolution atomic force microscopy. Geochimica Et Cosmochimica Acta, 2016, 175, 100-112.	1.6	70
42	Mechanical History Dependence in Carbon Black Suspensions for Flow Batteries: A Rheo-Impedance Study. Langmuir, 2017, 33, 1629-1638.	1.6	69
43	Electrowetting-Based Microdrop Tensiometer. Langmuir, 2008, 24, 10549-10551.	1.6	67
44	High speed adaptive liquid microlens array. Optics Express, 2012, 20, 18180.	1.7	67
45	Electrostatic interaction forces in aqueous salt solutions of variable concentration and valency. Nanotechnology, 2011, 22, 305706.	1.3	65
46	Probing the Surface Charge on the Basal Planes of Kaolinite Particles with High-Resolution Atomic Force Microscopy. Langmuir, 2017, 33, 14226-14237.	1.6	65
47	Extracting local surface charges and charge regulation behavior from atomic force microscopy measurements at heterogeneous solid-electrolyte interfaces. Nanoscale, 2015, 7, 16298-16311.	2.8	63
48	Electrothermally driven flows in ac electrowetting. Physical Review E, 2010, 81, 015303.	0.8	61
49	Micromachined Fabry-Pérot Interferometer with Embedded Nanochannels for Nanoscale Fluid Dynamics. Nano Letters, 2007, 7, 345-350.	4.5	60
50	Control of evaporating complex fluids through electrowetting. Soft Matter, 2012, 8, 10614.	1.2	59
51	Droplet Manipulations in Two Phase Flow Microfluidics. Micromachines, 2015, 6, 1768-1793.	1.4	59
52	Interfacial Assembly of Surfactant-Decorated Nanoparticles: On the Rheological Description of a Colloidal 2D Glass. Langmuir, 2015, 31, 6289-6297.	1.6	59
53	Equation of state and adsorption dynamics of soft microgel particles at an air-water interface. Soft Matter, 2014, 10, 7045-7050.	1.2	58
54	Air cushioning in droplet impact. II. Experimental characterization of the air film evolution. Physics of Fluids, 2015, 27, .	1.6	57

#	ARTICLE	IF	CITATIONS
55	Capillarity at the nanoscale: an AFM view. <i>Journal of Adhesion Science and Technology</i> , 2002, 16, 951-964.	1.4	56
56	Anisotropic and Hindered Diffusion of Colloidal Particles in a Closed Cylinder. <i>Langmuir</i> , 2010, 26, 16722-16729.	1.6	56
57	Recent Developments in Optofluidic Lens Technology. <i>Micromachines</i> , 2016, 7, 102.	1.4	56
58	e-MALDI: An Electrowetting-Enhanced Drop Drying Method for MALDI Mass Spectrometry. <i>Analytical Chemistry</i> , 2016, 88, 4669-4675.	3.2	56
59	Dynamics of Layering Transitions in Confined Liquids. <i>Physical Review Letters</i> , 2000, 84, 5796-5799.	2.9	53
60	Dissipation and oscillatory solvation forces in confined liquids studied by small-amplitude atomic force spectroscopy. <i>Nanotechnology</i> , 2010, 21, 325703.	1.3	53
61	Influence of confinement by smooth and rough walls on particle dynamics in dense hard-sphere suspensions. <i>Physical Review E</i> , 2009, 80, 061403.	0.8	51
62	Wetting ridge assisted programmed magnetic actuation of droplets on ferrofluid-infused surface. <i>Nature Communications</i> , 2021, 12, 7136.	5.8	51
63	Stability of stearic acid monolayers on Artificial Sea Water. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2012, 407, 38-48.	2.3	49
64	Ion-Specific and pH-Dependent Hydration of Micaâ€“Electrolyte Interfaces. <i>Langmuir</i> , 2019, 35, 5737-5745.	1.6	49
65	Mixing and Condensation in a Wet Granular Medium. <i>Physical Review Letters</i> , 2003, 90, 168702.	2.9	47
66	Capillarity-driven dynamics of waterâ€“alcohol mixtures in nanofluidic channels. <i>Microfluidics and Nanofluidics</i> , 2010, 9, 123-129.	1.0	47
67	Microscopic shape and contact angle measurement at a superhydrophobic surface. <i>Faraday Discussions</i> , 2010, 146, 49.	1.6	47
68	Electrically assisted drop sliding on inclined planes. <i>Applied Physics Letters</i> , 2011, 98, .	1.5	47
69	A numerical technique to simulate display pixels based on electrowetting. <i>Microfluidics and Nanofluidics</i> , 2015, 19, 465-482.	1.0	47
70	Nonlocal Dynamics of Spontaneous Imbibition Fronts. <i>Physical Review Letters</i> , 2002, 89, 104503.	2.9	46
71	Linear viscoelastic properties of aging suspensions. <i>Europhysics Letters</i> , 2006, 76, 74-80.	0.7	46
72	Air cushioning in droplet impact. I. Dynamics of thin films studied by dual wavelength reflection interference microscopy. <i>Physics of Fluids</i> , 2015, 27, .	1.6	46

#	ARTICLE	IF	CITATIONS
73	A microfluidic platform for on-demand formation and merging of microdroplets using electric control. <i>Biomicrofluidics</i> , 2011, 5, 11101.	1.2	45
74	Breath Figures under Electrowetting: Electrically Controlled Evolution of Drop Condensation Patterns. <i>Physical Review Letters</i> , 2018, 120, 214502.	2.9	45
75	Electrowetting-enhanced microfluidic device for drop generation. <i>Applied Physics Letters</i> , 2008, 93, .	1.5	44
76	Electrowetting-induced morphological transitions of fluid microstructures. <i>Journal of Applied Physics</i> , 2004, 95, 2918-2920.	1.1	42
77	Electrowetting –A versatile tool for controlling microdrop generation. <i>European Physical Journal E</i> , 2008, 26, 91-96.	0.7	42
78	Electrostatic potential wells for on-demand drop manipulation in microchannels. <i>Lab on A Chip</i> , 2014, 14, 883.	3.1	42
79	Electrically Controlled Localized Charge Trapping at Amorphous Fluoropolymer–Electrolyte Interfaces. <i>Small</i> , 2020, 16, e1905726.	5.2	41
80	Structure of Confined Films of Chain Alcohols. <i>Journal of Physical Chemistry B</i> , 2000, 104, 3140-3144.	1.2	40
81	Insights From Ion Adsorption and Contact-Angle Alteration at Mineral Surfaces for Low-Salinity Waterflooding. <i>SPE Journal</i> , 2016, 21, 1204-1213.	1.7	39
82	Charge inversion and colloidal stability of carbon black in battery electrolyte solutions. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2016, 489, 461-468.	2.3	39
83	Impact of Line Tension on the Equilibrium Shape of Liquid Droplets on Patterned Substrates. <i>Langmuir</i> , 2002, 18, 9771-9777.	1.6	38
84	Electrical Discharge in Capillary Breakup: Controlling the Charge of a Droplet. <i>Physical Review Letters</i> , 2006, 96, 016106.	2.9	38
85	Spontaneous electrification of fluoropolymer–water interfaces probed by electrowetting. <i>Faraday Discussions</i> , 2017, 199, 29-47.	1.6	38
86	Electrowetting-controlled droplet generation in a microfluidic flow-focusing device. <i>Journal of Physics Condensed Matter</i> , 2007, 19, 462101.	0.7	37
87	Electrically Tunable Wetting Defects Characterized by a Simple Capillary Force Sensor. <i>Langmuir</i> , 2013, 29, 9944-9949.	1.6	37
88	Sorption-Determined Deposition of Platinum on Well-Defined Platelike WO ₃ . <i>Angewandte Chemie - International Edition</i> , 2014, 53, 12476-12479.	7.2	37
89	Fragmentation and Erosion of Two-Dimensional Aggregates in Shear Flow. <i>Langmuir</i> , 2007, 23, 2352-2361.	1.6	35
90	Geometry-controlled droplet generation in head-on microfluidic devices. <i>Applied Physics Letters</i> , 2008, 93, .	1.5	35

#	ARTICLE	IF	CITATIONS
91	Mapping of spatiotemporal heterogeneous particle dynamics in living cells. <i>Physical Review E</i> , 2009, 79, 051910.	0.8	35
92	Salt Dependent Stability of Stearic Acid Langmuir-Blodgett Films Exposed to Aqueous Electrolytes. <i>Langmuir</i> , 2013, 29, 5150-5159.	1.6	35
93	Electric-field-driven instabilities on superhydrophobic surfaces. <i>Europhysics Letters</i> , 2011, 93, 56001.	0.7	34
94	On the shape of a droplet in a wedge: new insight from electrowetting. <i>Soft Matter</i> , 2015, 11, 7717-7721.	1.2	34
95	Self-Excited Drop Oscillations in Electrowetting. <i>Langmuir</i> , 2007, 23, 5173-5179.	1.6	33
96	A hybrid microfluidic chip with electrowetting functionality using ultraviolet (UV)-curable polymer. <i>Lab on A Chip</i> , 2010, 10, 1550.	3.1	33
97	Facet-Dependent Surface Charge and Hydration of Semiconducting Nanoparticles at Variable pH. <i>Advanced Materials</i> , 2021, 33, e2106229.	11.1	33
98	Rheological properties of aging thermosensitive suspensions. <i>Physical Review E</i> , 2007, 76, 021404.	0.8	32
99	Marangoni flow on an inkjet nozzle plate. <i>Applied Physics Letters</i> , 2007, 91, 204102.	1.5	32
100	Self-excited oscillatory dynamics of capillary bridges in electric fields. <i>Applied Physics Letters</i> , 2003, 82, 4187-4189.	1.5	31
101	Atomic structure and surface defects at mineral-water interfaces probed by in situ atomic force microscopy. <i>Nanoscale</i> , 2016, 8, 8220-8227.	2.8	30
102	Shaken not stirred – On internal flow patterns in oscillating sessile drops. <i>Europhysics Letters</i> , 2012, 98, 34003.	0.7	29
103	Buoyant Droplets on Functional Fibers. <i>Langmuir</i> , 2012, 28, 13300-13306.	1.6	29
104	Bouncing on thin air: how squeeze forces in the air film during non-wetting droplet bouncing lead to momentum transfer and dissipation. <i>Journal of Fluid Mechanics</i> , 2015, 776, 531-567.	1.4	29
105	Restructuring and Break-Up of Two-Dimensional Aggregates in Shear Flow. <i>Langmuir</i> , 2006, 22, 4959-4967.	1.6	28
106	Electrowetting-driven oscillating drops sandwiched between two substrates. <i>Physical Review E</i> , 2013, 88, 053015.	0.8	28
107	Surfactant induced autophobing. <i>Soft Matter</i> , 2016, 12, 4562-4571.	1.2	28
108	Nanometer-Resolved Collective Micromeniscus Oscillations through Optical Diffraction. <i>Physical Review Letters</i> , 2007, 99, 214501.	2.9	27

#	ARTICLE	IF	CITATIONS
109	Interfacial tension measurements with microfluidic tapered channels. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2011, 389, 38-42.	2.3	27
110	Impact of surface defects on the surface charge of gibbsite nanoparticles. <i>Nanoscale</i> , 2017, 9, 4721-4729.	2.8	27
111	Controlling shedding characteristics of condensate drops using electrowetting. <i>Applied Physics Letters</i> , 2018, 113, .	1.5	27
112	Contact angle hysteresis and oil film lubrication in electrowetting with two immiscible liquids. <i>Applied Physics Letters</i> , 2018, 112, 203703.	1.5	27
113	Capillary Bridges in Electric Fields. <i>Langmuir</i> , 2004, 20, 6770-6777.	1.6	26
114	Controlling flow patterns in oscillating sessile drops by breaking azimuthal symmetry. <i>Applied Physics Letters</i> , 2011, 99, .	1.5	26
115	pH-Dependence in facet-selective photo-deposition of metals and metal oxides on semiconductor particles. <i>Journal of Materials Chemistry A</i> , 2018, 6, 7500-7508.	5.2	26
116	Influence of Cationic Composition and pH on the Formation of Metal Stearates at Oil-Water Interfaces. <i>Langmuir</i> , 2011, 27, 8738-8747.	1.6	25
117	Detection of ion adsorption at solid-liquid interfaces using internal reflection ellipsometry. <i>Sensors and Actuators B: Chemical</i> , 2015, 210, 649-655.	4.0	25
118	Aging in dense suspensions of soft thermosensitive microgel particles studied with particle-tracking microrheology. <i>Physical Review E</i> , 2010, 81, 011404.	0.8	24
119	Ion effects in the adsorption of carboxylate on oxide surfaces, studied with quartz crystal microbalance. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2016, 494, 30-38.	2.3	24
120	Correlation between Electrostatic and Hydration Forces on Silica and Gibbsite Surfaces: An Atomic Force Microscopy Study. <i>Langmuir</i> , 2022, 38, 914-926.	1.6	24
121	Scaling of interface displacement in a microfluidic comparator. <i>Applied Physics Letters</i> , 2007, 90, 114109.	1.5	22
122	Unobtrusive graphene coatings. <i>Nature Materials</i> , 2012, 11, 182-183.	13.3	22
123	Stability and interactions in mixed monolayers of fatty acid derivatives on Artificial Sea Water. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2013, 433, 200-211.	2.3	22
124	Boundary lubrication: Dynamics of squeeze-out. <i>Physical Review E</i> , 2001, 63, 055103.	0.8	21
125	A simple, ultrahigh vacuum compatible scanning tunneling microscope for use at variable temperatures. <i>Review of Scientific Instruments</i> , 1996, 67, 2557-2559.	0.6	20
126	The influence of tip-sample interaction on step fluctuations on Ag(111). <i>Surface Science</i> , 1998, 400, 80-86.	0.8	20

#	ARTICLE	IF	CITATIONS
127	STM investigation of the island growth of gold on WS ₂ and WSe ₂ . Surface Science, 1998, 402-404, 409-412.	0.8	20
128	Frictional properties of thin chain alcohol films. Journal of Chemical Physics, 2001, 114, 1831-1836.	1.2	20
129	Stability Limits of Capillary Bridges: How Contact Angle Hysteresis Affects Morphology Transitions of Liquid Microstructures. Physical Review Letters, 2015, 114, 234501.	2.9	20
130	Aberration control in adaptive optics: a numerical study of arbitrarily deformable liquid lenses. Optics Express, 2017, 25, 6700.	1.7	20
131	Algorithm-improved high-speed and non-invasive confocal Raman imaging of 2D materials. National Science Review, 2020, 7, 620-628.	4.6	20
132	Electrical-field-induced curvature increase on a drop of conducting liquid. Europhysics Letters, 2006, 74, 103-109.	0.7	19
133	Atomic force microscopy cantilever dynamics in liquid in the presence of tip sample interaction. Applied Physics Letters, 2008, 93, .	1.5	19
134	Influence of electrochemical cycling on the rheo-impedance of anolytes for Li-based Semi Solid Flow Batteries. Electrochimica Acta, 2017, 251, 388-395.	2.6	19
135	Sample preconcentration inside sessile droplets using electrowetting. Biomicrofluidics, 2013, 7, 44102.	1.2	18
136	Electrowetting of Complex Fluids: Perspectives for Rheometry on Chip. Langmuir, 2009, 25, 1245-1252.	1.6	17
137	Colloidal Dynamics Near a Particle-Covered Surface. Langmuir, 2011, 27, 12297-12303.	1.6	17
138	Atomic force microscopy of confined liquids using the thermal bending fluctuations of the cantilever. Physical Review E, 2013, 87, 062406.	0.8	17
139	Stick-Slip to Sliding Transition of Dynamic Contact Lines under AC Electrowetting. Langmuir, 2013, 29, 15116-15121.	1.6	17
140	In-chip direct laser writing of a centimeter-scale acoustic micromixer. Journal of Micro/Nanolithography, MEMS, and MOEMS, 2015, 14, 1.	1.0	17
141	Numerical simulation of astigmatic liquid lenses tuned by a stripe electrode. Optics Express, 2016, 24, 4210.	1.7	17
142	Droplets profiles and wetting transitions in electric fields. Physica A: Statistical Mechanics and Its Applications, 2004, 339, 72-79.	1.2	16
143	Non-monotonic variation of viscous dissipation in confined liquid films: A reconciliation. Europhysics Letters, 2012, 97, 46001.	0.7	16
144	Salinity-dependent contact angle alteration in oil/brine/silicate systems: The effect of temperature. Journal of Petroleum Science and Engineering, 2018, 165, 1040-1048.	2.1	16

#	ARTICLE	IF	CITATIONS
145	Electroviscous Dissipation in Aqueous Electrolyte Films with Overlapping Electric Double Layers. <i>Journal of Physical Chemistry B</i> , 2018, 122, 933-946.	1.2	16
146	Frictional Properties of Straight-Chain Alcohols and the Dynamics of Layering Transitions. <i>Tribology Letters</i> , 2002, 12, 123-129.	1.2	15
147	Collapse of molecularly thin lubricant layers between elastic substrates. <i>Journal of Physics Condensed Matter</i> , 2003, 15, S321-S330.	0.7	15
148	Nanofluidics: Molecularly thin lubricant layers under confinement. <i>Molecular Simulation</i> , 2005, 31, 489-494.	0.9	15
149	Absence of anomalous underscreening in highly concentrated aqueous electrolytes confined between smooth silica surfaces. <i>Journal of Colloid and Interface Science</i> , 2022, 622, 819-827.	5.0	15
150	A simple method to determine the surface charge in microfluidic channels. <i>Electrophoresis</i> , 2010, 31, 563-569.	1.3	14
151	Amplitude modulation atomic force microscopy, is acoustic driving in liquid quantitatively reliable?. <i>Nanotechnology</i> , 2015, 26, 385703.	1.3	14
152	Effects of shear and walls on the diffusion of colloids in microchannels. <i>Physical Review E</i> , 2015, 91, 052305.	0.8	14
153	Measuring Advection and Diffusion of Colloids in Shear Flow. <i>Langmuir</i> , 2015, 31, 5689-5700.	1.6	14
154	Jumping drops on hydrophobic surfaces, controlling energy transfer by timed electric actuation. <i>Soft Matter</i> , 2017, 13, 4856-4863.	1.2	14
155	Design and wavefront characterization of an electrically tunable aspherical optofluidic lens. <i>Optics Express</i> , 2019, 27, 17601.	1.7	14
156	Do Epitaxy and Temperature Affect Oscillatory Solvation Forces?. <i>Langmuir</i> , 2010, 26, 13245-13250.	1.6	13
157	Can Confinement-Induced Variations in the Viscous Dissipation be Measured?. <i>Tribology Letters</i> , 2012, 48, 1-9.	1.2	13
158	Numerical investigation of dynamic effects for sliding drops on wetting defects. <i>Physical Review E</i> , 2015, 91, 023013.	0.8	13
159	High-throughput sorting of drops in microfluidic chips using electric capacitance. <i>Biomicrofluidics</i> , 2015, 9, 044116.	1.2	13
160	Mineral Interfaces and Oil Recovery: A Microscopic View on Surface Reconstruction, Organic Modification, and Wettability Alteration of Carbonates. <i>Energy & Fuels</i> , 2020, 34, 5611-5622.	2.5	13
161	New design of a variable-temperature ultrahigh vacuum scanning tunneling microscope. <i>Review of Scientific Instruments</i> , 1998, 69, 1765-1769.	0.6	12
162	Two-dimensional observation of drainage and layering transitions in confined liquids. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2002, 206, 105-113.	2.3	12

#	ARTICLE	IF	CITATIONS
163	Dynamics of squeeze-out: Theory and experiments. <i>Journal of Chemical Physics</i> , 2003, 118, 11160-11167.	1.2	12
164	Imaging local acoustic pressure in microchannels. <i>Applied Optics</i> , 2015, 54, 6482.	2.1	12
165	Electrode-assisted trapping and release of droplets on hydrophilic patches in a hydrophobic microchannel. <i>Microfluidics and Nanofluidics</i> , 2016, 20, 1.	1.0	12
166	Numerical analysis of electrically tunable aspherical optofluidic lenses. <i>Optics Express</i> , 2016, 24, 14672.	1.7	12
167	Apparent wall-slip of colloidal hard-sphere suspensions in microchannel flow. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2016, 491, 50-56.	2.3	12
168	Soft electrowetting. <i>Soft Matter</i> , 2019, 15, 6469-6475.	1.2	12
169	A method for reversible control over nano-roughness of colloidal particles. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2019, 560, 50-58.	2.3	12
170	Interlayer Cation-Controlled Adsorption of Carbon Dioxide in Anhydrous Montmorillonite Clay. <i>Journal of Physical Chemistry C</i> , 2021, 125, 27159-27169.	1.5	12
171	Microrheology of Aggregated Emulsion Droplet Networks, Studied with AFM [®] CSLM. <i>Langmuir</i> , 2006, 22, 560-574.	1.6	11
172	To merge or not to merge <i>Nature</i> , 2009, 461, 356-356.	18.7	11
173	Confinement-dependent damping in a layered liquid. <i>Journal of Physics Condensed Matter</i> , 2011, 23, 112206.	0.7	11
174	Slippery when wet: mobility regimes of confined drops in electrowetting. <i>Soft Matter</i> , 2019, 15, 7063-7070.	1.2	11
175	Electrowetting-Assisted Generation of Ultrastable High Charge Densities in Composite Silicon Oxide-Fluoropolymer Electret Samples for Electric Nanogenerators. <i>Advanced Functional Materials</i> , 2021, 31, 2007872.	7.8	11
176	Finite conductivity effects and apparent contact angle saturation in AC electrowetting. <i>Materials Research Society Symposia Proceedings</i> , 2005, 899, 1.	0.1	10
177	Cationic Hofmeister Series of Wettability Alteration in Mica-Water-Alkane Systems. <i>Langmuir</i> , 2018, 34, 13574-13583.	1.6	10
178	Wetting of Mineral Surfaces by Fatty-Acid-Laden Oil and Brine: Carbonate Effect at Elevated Temperature. <i>Energy & Fuels</i> , 2019, 33, 9446-9456.	2.5	10
179	Large-Area High-Contrast Hydrophobic/Hydrophilic Patterned Surface for Robust Electrowetting Devices. <i>ACS Applied Nano Materials</i> , 2019, 2, 1018-1026.	2.4	10
180	Spherical probes for simultaneous measurement of rotational and translational diffusion in 3 dimensions. <i>Journal of Colloid and Interface Science</i> , 2020, 576, 322-329.	5.0	10

#	ARTICLE	IF	CITATIONS
181	In-situ observation of reactive wettability alteration using algorithm-improved confocal Raman microscopy. <i>Journal of Colloid and Interface Science</i> , 2021, 584, 551-560.	5.0	10
182	Towards enhanced oil recovery: Effects of ionic valency and pH on the adsorption of hydrolyzed polyacrylamide at model surfaces using QCM-D. <i>Applied Surface Science</i> , 2021, 560, 149995.	3.1	10
183	Electrowettingâ€Controlled Dropwise Condensation with Patterned Electrodes: Physical Principles, Modeling, and Application Perspectives. <i>Advanced Materials Interfaces</i> , 2021, 8, 2001317.	1.9	10
184	Say goodbye to coffee stains. <i>Physics World</i> , 2012, 25, 33-37.	0.0	9
185	Behaviour of flexible superhydrophobic striped surfaces during (electro-)wetting of a sessile drop. <i>Soft Matter</i> , 2019, 15, 9840-9848.	1.2	9
186	Characterizing the fluidâ€matrix affinity in an organogel from the growth dynamics of oil stains on blotting paper. <i>Soft Matter</i> , 2020, 16, 4200-4209.	1.2	9
187	Step roughness on Ag(111) investigated by STM: a systematic study of tip influence. <i>Surface Science</i> , 1997, 377-379, 62-65.	0.8	8
188	Phase Selection in Capillary Breakup in AC Electric Fields. <i>Langmuir</i> , 2008, 24, 11847-11850.	1.6	8
189	Use of electrowetting to measure dynamic interfacial tensions of a microdrop. <i>Lab on A Chip</i> , 2012, 12, 2832.	3.1	8
190	Encased cantilevers for low-noise force and mass sensing in liquids. , 2014, , .		8
191	Analytic model for the electrowetting properties of oil-water-solid systems. <i>Physical Review E</i> , 2016, 93, 042606.	0.8	8
192	Bubble formation in catalyst pores; curse or blessing?. <i>Reaction Chemistry and Engineering</i> , 2018, 3, 826-833.	1.9	8
193	Electroviscous effects on the squeezing flow of thin electrolyte solution films. <i>Journal of Fluid Mechanics</i> , 2020, 888, .	1.4	8
194	On the structure of thin ⁴ He films on solid hydrogen. <i>Journal of Low Temperature Physics</i> , 1994, 96, 177-184.	0.6	7
195	Microfluidic valves with integrated structured elastomeric membranes for reversible fluidic entrapment and in situ channel functionalization. <i>Lab on A Chip</i> , 2009, 9, 1461.	3.1	7
196	Instability of Confined Water Films between Elastic Surfaces. <i>Langmuir</i> , 2010, 26, 3280-3285.	1.6	7
197	Combined microfluidicsâ€confocal Raman microscopy platform for studying enhanced oil recovery mechanisms. <i>Journal of Raman Spectroscopy</i> , 2019, 50, 996-1007.	1.2	7
198	X-ray Photoelectron Spectroscopy with Electrical Modulation Can Be Used to Probe Electrical Properties of Liquids and Their Interfaces at Different Stages. <i>Langmuir</i> , 2019, 35, 16989-16999.	1.6	7

#	ARTICLE	IF	CITATIONS
199	Electrochemically Induced Changes in TiO ₂ and Carbon Films Studied with QCM-D. ACS Applied Energy Materials, 2020, 3, 1775-1783.	2.5	7
200	Roughness induced rotational slowdown near the colloidal glass transition. Journal of Colloid and Interface Science, 2022, 607, 1709-1716.	5.0	7
201	Mechanical properties of molecularly thin lubricant layers: experimental methods and procedures. Journal of Physics Condensed Matter, 2005, 17, S319-S332.	0.7	6
202	Droplet motion electrically controlled. Nature, 2019, 572, 445-446.	13.7	6
203	Optical measurements of oil release from calcite packed beds in microfluidic channels. Microfluidics and Nanofluidics, 2020, 24, 1.	1.0	6
204	Aging brine-dependent deposition of crude oil components onto mica substrates, and its consequences for wettability. Fuel, 2020, 274, 117856.	3.4	6
205	Fundamentals of Electrowetting and Applications in Microsystems. , 2011, , 85-125.		6
206	Effects of Fluid Aging and Reservoir Temperature on Waterflooding in 2.5D Glass Micromodels. Energy & Fuels, 2022, 36, 1388-1401.	2.5	6
207	Formation and Stability of Heterogeneous Organo-Ionic Surface Layers on Geological Carbonates. Energy & Fuels, 2022, 36, 7414-7433.	2.5	6
208	Dynamics of colloids confined in microcylinders. Soft Matter, 2016, 12, 1621-1630.	1.2	5
209	Artificial Diagenesis of Carbonates: Temperature-Dependent Inorganic and Organic Modifications in Reservoir Mimetic Fluids. SPE Journal, 2021, 26, 3222-3236.	1.7	5
210	A Model Configuration For Studying Stationary Grease Bleed In Rolling Bearings. Tribology Transactions, 2021, 64, 1127-1137.	1.1	5
211	Nonmonotonic Coupled Dissolution-Precipitation Reactions at the Mineral-Water Interface. Advanced Functional Materials, 2021, 31, 2106396.	7.8	5
212	Reappraisal of Unrealised & amp; Novel Thermal Control Issues For Applications In Future Spacecraft. , 0, , .		4
213	Superamphiphobic Surfaces. , 2015, , 57-69.		4
214	E-MALDI: optimized conditions during electrowetting-enhanced drop drying for MALDI-MS. Journal of Mass Spectrometry, 2017, 52, 405-410.	0.7	4
215	Numerical study of submicroparticle acoustophoresis using higher-order modes in a rectangular microchannel. Journal of Sound and Vibration, 2018, 415, 169-183.	2.1	3
216	Charge-Trapping-Based Electricity Generation: Charge Trapping-Based Electricity Generator (CTEG): An Ultrarobust and High Efficiency Nanogenerator for Energy Harvesting from Water Droplets (Adv.) Tj ETQq0 0 0 rgBT10 Overlock 10 Tf 50	11.0	10

#	ARTICLE	IF	CITATIONS
217	Response of crude oil deposited organic layers to brines of different salinity: An atomic force microscopy study on carbonate surfaces. <i>Fuel</i> , 2021, 302, 121129.	3.4	3
218	Possible correlation effects of surface state electrons on a solid hydrogen film. <i>Journal of Low Temperature Physics</i> , 1992, 89, 743-746.	0.6	2
219	Electroactuators: from understanding to micro-robotics and energy conversion: general discussion. <i>Faraday Discussions</i> , 2017, 199, 525-545.	1.6	2
220	Electrotunable wetting, and micro- and nanofluidics: general discussion. <i>Faraday Discussions</i> , 2017, 199, 195-237.	1.6	2
221	Device for rheometry, impedance spectroscopy, and electrochemistry on fluid electrodes. <i>Review of Scientific Instruments</i> , 2019, 90, 025112.	0.6	2
222	Artificial Diagenesis of Carbonates: Temperature Dependent Inorganic and Organic Modifications in Reservoir Mimetic Fluids. , 2020, , .		2
223	AFM Imaging of Liquid Structures: From Droplet Profiles to Molecular Interactions. , 2002, , 337-347.		2
224	Design of a hybrid advective-diffusive microfluidic system with ellipsometric detection for studying adsorption. <i>Biomicrofluidics</i> , 2016, 10, 034113.	1.2	1
225	Facile synthesis, characterization and catalytic activity of nanoporous supports loaded with monometallic and bimetallic nanoparticles. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2016, 491, 57-61.	2.3	1
226	Electrovariable nanoplasmonics: general discussion. <i>Faraday Discussions</i> , 2017, 199, 603-613.	1.6	1
227	Response to "Comment on "How to make sticky surfaces slippery: Contact angle hysteresis in electrowetting with alternating voltage" [Appl. Phys. Lett. 114, 116101 (2019)]. <i>Applied Physics Letters</i> , 2019, 114, 116102.	1.5	1
228	Ultrasensitive Detection and In Situ Imaging of Analytes on Graphene Oxide Analogues Using Enhanced Raman Spectroscopy. <i>Analytical Chemistry</i> , 2021, 93, 12966-12972.	3.2	1
229	Small Amplitude Atomic Force Spectroscopy. <i>Nanoscience and Technology</i> , 2011, , 39-58.	1.5	1
230	On the origins of the universal dynamics of endogenous granules in mammalian cells. <i>MCB Molecular and Cellular Biomechanics</i> , 2009, 6, 191-201.	0.3	1
231	Wetting, Confinement, and Drainage of Liquids. <i>ACS Symposium Series</i> , 2004, , 123-130.	0.5	0
232	Age-dependent Relaxation Times of Soft Colloidal Suspensions with Tunable Glassiness. <i>AIP Conference Proceedings</i> , 2008, , .	0.3	0
233	Nanotribology and voltage-controlled friction: general discussion. <i>Faraday Discussions</i> , 2017, 199, 349-376.	1.6	0
234	10.1063/1.3533362.1. , 2011, , .		0

#	ARTICLE	IF	CITATIONS
235	Wigner crystallization of two-dimensional electron systems on solid H ₂ -films. European Physical Journal Special Topics, 1993, 03, C2-45-C2-48.	0.2	0
236	Nonmonotonic Coupled Dissolutionâ€Precipitation Reactions at the Mineralâ€Water Interface (Adv.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	7.8	0
237	Facetâ€Dependent Surface Charge and Hydration of Semiconducting Nanoparticles at Variable pH (Adv.) Tj ETQq1 1 0.784314 rgBT /Ov	11.1	0