Howard A Stone

List of Publications by Year
in descending order

582 papers	49,185 citations	1704 104 h-index	2280 200 g-index
605 all docs	605 docs citations	605 times ranked	33913 citing authors

#	Article	IF	Citations
1	Chaotic Mixer for Microchannels. Science, 2002, 295, 647-651.	12.6	2,963
2	Formation of dispersions using â€œflow focusingâ€• in microchannels. Applied Physics Letters, 2003, 82, 364-366.	3.3	1,998
3	Monodisperse Double Emulsions Generated from a Microcapillary Device. Science, 2005, 308, 537-541.	12.6	1,923
4	Formation of droplets and bubbles in a microfluidic T-junctionâ€”scaling and mechanism of break-up. Lab on A Chip, 2006, 6, 437.	6.0	1,863
5	Microscopic artificial swimmers. Nature, 2005, 437, 862-865.	27.8	1,595
6	Dynamics of Drop Deformation and Breakup in Viscous Fluids. Annual Review of Fluid Mechanics, 1994, 26, 65-102.	25.0	1,001
7	Swimming in Circles: Motion of Bacteria near Solid Boundaries. Biophysical Journal, 2006, 90, 400-412.	0.5	805
8	Generation of Monodisperse Particles by Using Microfluidics: Control over Size, Shape, and Composition. Angewandte Chemie - International Edition, 2005, 44, 724-728.	13.8	700
9	Effective slip in pressure-driven Stokes flow. Journal of Fluid Mechanics, 2003, 489, 55-77.	3.4	640
10	Transition from squeezing to dripping in a microfluidic T-shaped junction. Journal of Fluid Mechanics, 2008, 595, 141-161.	3.4	571
11	Formation of monodisperse bubbles in a microfluidic flow-focusing device. Applied Physics Letters, 2004, 85, 2649-2651.	3.3	563
12	Coalescence of liquid drops. Journal of Fluid Mechanics, 1999, 401, 293-310.	3.4	554
13	Influence of Substrate Conductivity on Circulation Reversal in Evaporating Drops. Physical Review Letters, 2007, 99, 234502.	7.8	484
14	Dynamic self-assembly of magnetized, millimetre-sized objects rotating at a liquidâ€"air interface. Nature, 2000, 405, 1033-1036.	27.8	481
15	Mechanism for Flow-Rate Controlled Breakup in Confined Geometries: A Route to Monodisperse Emulsions. Physical Review Letters, 2005, 94, 164501.	7.8	480
16	Experimental and theoretical scaling laws for transverse diffusive broadening in two-phase laminar flows in microchannels. Applied Physics Letters, 2000, 76, 2376-2378.	3.3	478
17	Microfluidics: Basic issues, applications, and challenges. AICHE Journal, 2001, 47, 1250-1254.	3.6	459
18	The Mechanical World of Bacteria. Cell, 2015, 161, 988-997.	28.9	422

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19	An experimental study of transient effects in the breakup of viscous drops. Journal of Fluid Mechanics, 1986, 173, 131-158.	3.4	387
20	A simple derivation of the timeâ€dependent convectiveâ€diffusion equation for surfactant transport along a deforming interface. Physics of Fluids A, Fluid Dynamics, 1990, 2, 111-112.	1.6	380
21	Relaxation and breakup of an initially extended drop in an otherwise quiescent fluid. Journal of Fluid Mechanics, 1989, 198, 399.	3.4	364
22	A Generalized View of Foam Drainage:Â Experiment and Theory. Langmuir, 2000, 16, 6327-6341.	3.5	364
23	Propulsion of Microorganisms by Surface Distortions. Physical Review Letters, 1996, 77, 4102-4104.	7.8	360
24	The effects of surfactants on drop deformation and breakup. Journal of Fluid Mechanics, 1990, 220, 161-186.	3.4	348
25	Wrinkles and deep folds as photonic structures in photovoltaics. Nature Photonics, 2012, 6, 327-332.	31.4	346
26	The pressure drop along rectangular microchannels containing bubbles. Lab on A Chip, 2007, 7, 1479.	6.0	334
27	Type IV pili mechanochemically regulate virulence factors in <i>Pseudomonas aeruginosa</i>. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 7563-7568.	7.1	320
28	Microfluidic flow focusing: Drop size and scaling in pressureversus flow-rate-driven pumping. Electrophoresis, 2005, 26, 3716-3724.	2.4	309
29	Solutions to the Public Goods Dilemma in Bacterial Biofilms. Current Biology, 2014, 24, 50-55.	3.9	307
30	Emulsification in a microfluidic flow-focusing device: effect of the viscosities of the liquids. Microfluidics and Nanofluidics, 2008, 5, 585-594.	2.2	299
31	Dripping and jetting in microfluidic multiphase flows applied to particle and fibre synthesis. Journal Physics D: Applied Physics, 2013, 46, 114002.	2.8	296
32	Inhaling to mitigate exhaled bioaerosols. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 17383-17388.	7.1	294
33	Biofilm streamers cause catastrophic disruption of flow with consequences for environmental and medical systems. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 4345-4350.	7.1	283
34	On self-propulsion of micro-machines at low Reynolds number: Purcells three-link swimmer. Journal of Fluid Mechanics, 2003, 490, 15-35.	3.4	275
35	Imbibition by polygonal spreading on microdecorated surfaces. Nature Materials, 2007, 6, 661-664.	27.5	274
36	Capillary breakup of a viscous thread surrounded by another viscous fluid. Physics of Fluids, 1998, 10, 2758-2764.	4.0	270

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37	Satellite and subsatellite formation in capillary breakup. Journal of Fluid Mechanics, 1992, 243, 297.	3.4	262
38	Cell Membranes Resist Flow. Cell, 2018, 175, 1769-1779.e13.	28.9	254
39	Controlled assembly of jammed colloidal shells on fluid droplets. Nature Materials, 2005, 4, 553-556.	27.5	253
40	Short-Time Dynamics of Partial Wetting. Physical Review Letters, 2008, 100, 234501.	7.8	246
41	Shear-Driven Failure of Liquid-Infused Surfaces. Physical Review Letters, 2015, 114, 168301.	7.8	240
42	Dynamics of shear-induced ATP release from red blood cells. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 16432-16437.	7.1	235
43	Non-coalescence of oppositely charged drops. Nature, 2009, 461, 377-380.	27.8	235
44	Controlled Uniform Coating from the Interplay of Marangoni Flows and Surface-Adsorbed Macromolecules. Physical Review Letters, 2016, 116, 124501.	7.8	231
45	Wetting of flexible fibre arrays. Nature, 2012, 482, 510-513.	27.8	229
46	Dynamics of Coarsening Foams: Accelerated and Self-Limiting Drainage. Physical Review Letters, 2001, 86, 4704-4707.	7.8	221
47	Hierarchical folding of elastic membranes under biaxial compressive stress. Nature Materials, 2011, 10, 952-957.	27.5	218
48	Scaling laws for the thrust production of flexible pitching panels. Journal of Fluid Mechanics, 2013, 732, 29-46.	3.4	208
49	Quantifying Dynamics in Phase-Separated Condensates Using Fluorescence Recovery after Photobleaching. Biophysical Journal, 2019, 117, 1285-1300.	0.5	208
50	Surface Morphology of Drying Latex Films:Â Multiple Ring Formation. Langmuir, 2002, 18, 3441-3445.	3.5	206
51	Control of interfacial instabilities using flow geometry. Nature Physics, 2012, 8, 747-750.	16.7	198
52	Dynamic self-assembly and control of microfluidic particle crystals. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 22413-22418.	7.1	193
53	Size-dependent control of colloid transport via solute gradients in dead-end channels. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 257-261.	7.1	189
54	Liquid Flow through Aqueous Foams: The Node-Dominated Foam Drainage Equation. Physical Review Letters, 1999, 82, 4232-4235.	7.8	186

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55	Geometric Cue for Protein Localization in a Bacterium. Science, 2009, 323, 1354-1357.	12.6	186
56	Daughter bubble cascades produced by folding of ruptured thin films. Nature, 2010, 465, 759-762.	27.8	182
57	Architectural transitions in <i>Vibrio cholerae</i> biofilms at single-cell resolution. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E2066-72.	7.1	178
58	Laminar flow around corners triggers the formation of biofilm streamers. Journal of the Royal Society Interface, 2010, 7, 1293-1299.	3.4	172
59	Electrohydrodynamic deformation and interaction of drop pairs. Journal of Fluid Mechanics, 1998, 368, 359-375.	3.4	171
60	Viscoplastic Matrix Materials for Embedded 3D Printing. ACS Applied Materials & Interfaces, 2018, 10, 23353-23361.	8.0	167
61	Speech can produce jet-like transport relevant to asymptomatic spreading of virus. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 25237-25245.	7.1	165
62	Ice-Phobic Surfaces That Are Wet. ACS Nano, 2012, 6, 6536-6540.	14.6	163
63	High-speed microfluidic differential manometer for cellular-scale hydrodynamics. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 538-542.	7.1	160
64	Cellular-scale hydrodynamics. Biomedical Materials (Bristol), 2008, 3, 034011.	3.3	159
65	<i>Vibrio cholerae</i> biofilm growth program and architecture revealed by single-cell live imaging. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E5337-43.	7.1	159
66	High-Density Regular Arrays of Nanometer-Scale Rods Formed on Silicon Surfaces via Femtosecond Laser Irradiation in Water. Nano Letters, 2008, 8, 2087-2091.	9.1	157
67	The effect of surfactant on the transient motion of Newtonian drops. Physics of Fluids A, Fluid Dynamics, 1993, 5, 69-79.	1.6	155
68	Imbibition in Porous Membranes of Complex Shape: Quasi-stationary Flow in Thin Rectangular Segments. Langmuir, 2010, 26, 1380-1385.	3.5	154
69	Dissolution Arrest and Stability of Particle-Covered Bubbles. Physical Review Letters, 2007, 99, 188301.	7.8	150
70	Multiscale approach to link red blood cell dynamics, shear viscosity, and ATP release. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 10986-10991.	7.1	149
71	Shear Stress Increases the Residence Time of Adhesion of Pseudomonas aeruginosa. Biophysical Journal, 2011, 100, 341-350.	0.5	145
72	The dynamic behavior of chemically â€œstiffenedâ€•red blood cells in microchannel flows. Microvascular Research, 2010, 80, 37-43.	2.5	143

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73	Geometrical focusing of cells in a microfluidic device: an approach to separate blood plasma. Biorheology, 2006, 43, 147-59.	0.4	143
74	Effect of Microtextured Surface Topography on the Wetting Behavior of Eutectic Galliumâ€"Indium Alloys. Langmuir, 2014, 30, 533-539.	3.5	142
75	Drop formation in viscous flows at a vertical capillary tube. Physics of Fluids, 1997, 9, 2234-2242.	4.0	139
76	Hydrodynamic Dispersion in Shallow Microchannels:â€‰ the Effect of Cross-Sectional Shape. Analytical Chemistry, 2006, 78, 387-392.	6.5	139
77	Controllable Microfluidic Production of Microbubbles in Waterâ€inâ€Oil Emulsions and the Formation of Porous Microparticles. Advanced Materials, 2008, 20, 3314-3318.	21.0	139
78	Interfacial Polygonal Nanopatterning of Stable Microbubbles. Science, 2008, 320, 1198-1201.	12.6	137
79	Local and global consequences of flow on bacterial quorum sensing. Nature Microbiology, 2016, 1, 15005.	13.3	137
80	Thermal and fluid processes of a thin melt zone during femtosecond laser ablation of glass: the formation of rims by single laser pulses. Journal Physics D: Applied Physics, 2007, 40, 1447-1459.	2.8	135
81	An Accurate von Neumann's Law for Three-Dimensional Foams. Physical Review Letters, 2001, 86, 2685-2688.	7.8	134
82	Imbibition in geometries with axial variations. Journal of Fluid Mechanics, 2008, 615, 335-344.	3.4	134
83	Bending and twisting of soft materials by non-homogenous swelling. Soft Matter, 2011, 7, 5188.	2.7	134
84	Hydrodynamics of particles embedded in a flat surfactant layer overlying a subphase of finite depth. Journal of Fluid Mechanics, 1998, 369, 151-173.	3.4	132
85	Pumping-out photo-surfactants from an airâ€"water interface using light. Soft Matter, 2011, 7, 7866.	2.7	130
86	On the dynamics of magnetically driven elastic filaments. Journal of Fluid Mechanics, 2006, 554, 167.	3.4	128
87	Breakup of concentric double emulsion droplets in linear flows. Journal of Fluid Mechanics, 1990, 211, 123-156.	3.4	126
88	Buoyancy-driven interactions between two deformable viscous drops. Journal of Fluid Mechanics, 1993, 256, 647-683.	3.4	126
89	A mathematical model for top-shelf vertigo: the role of sedimenting otoconia in BPPV. Journal of Biomechanics, 2004, 37, 1137-1146.	2.1	122
90	Pinching threads, singularities and the number 0.0304.... Physics of Fluids, 1996, 8, 2827-2836.	4.0	121

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91	Relaxation Time of the TopologicalT1Process in a Two-Dimensional Foam. Physical Review Letters, 2006, 97, 226101.	7.8	121
92	Axial and lateral particle ordering in finite Reynolds number channel flows. Physics of Fluids, 2010, 22, .	4.0	121
93	Mechanics of surface area regulation in cells examined with confined lipid membranes. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 9084-9088.	7.1	121
94	Fiber coating with surfactant solutions. Physics of Fluids, 2002, 14, 4055-4068.	4.0	119
95	Characteristic lengths at moving contact lines for a perfectly wetting fluid: the influence of speed on the dynamic contact angle. Journal of Fluid Mechanics, 2004, 505, 309-321.	3.4	119
96	Extracellular-matrix-mediated osmotic pressure drives Vibrio cholerae biofilm expansion and cheater exclusion. Nature Communications, 2017, 8, 327.	12.8	119
97	Critical Angle for Electrically Driven Coalescence of Two Conical Droplets. Physical Review Letters, 2009, 103, 164502.	7.8	118
98	Thermophoresis: microfluidics characterization and separation. Soft Matter, 2010, 6, 3489.	2.7	118
99	Liquid explosions induced by X-ray laser pulses. Nature Physics, 2016, 12, 966-971.	16.7	116
100	Morphology of femtosecond-laser-ablated borosilicate glass surfaces. Applied Physics Letters, 2003, 83, 3030-3032.	3.3	115
101	Drops with conical ends in electric and magnetic fields. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 1999, 455, 329-347.	2.1	114
102	Colloidal Crystallization and Banding in a Cylindrical Geometry. Journal of the American Chemical Society, 2004, 126, 5978-5979.	13.7	112
103	Two-Peak and Three-Peak Optimal Complex Networks. Physical Review Letters, 2004, 92, 118702.	7.8	110
104	Microstructure, Morphology, and Lifetime of Armored Bubbles Exposed to Surfactants. Langmuir, 2006, 22, 5986-5990.	3.5	110
105	The influence of initial deformation on drop breakup in subcritical time-dependent flows at low Reynolds numbers. Journal of Fluid Mechanics, 1989, 206, 223-263.	3.4	109
106	Effective slip boundary conditions for arbitrary periodic surfaces: the surface mobility tensor. Journal of Fluid Mechanics, 2010, 658, 409-437.	3.4	109
107	Suppressing viscous fingering in structured porous media. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 4833-4838.	7.1	107
108	Cell position fates and collective fountain flow in bacterial biofilms revealed by light-sheet microscopy. Science, 2020, 369, 71-77.	12.6	106

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109	Secondary Flow as a Mechanism for the Formation of Biofilm Streamers. Biophysical Journal, 2011, 100, 1392-1399.	0.5	101
110	Oilâ€Impregnated Nanoporous Oxide Layer for Corrosion Protection with Selfâ€Healing. Advanced Functional Materials, 2017, 27, 1606040.	14.9	100
111	Electroosmotic Flows Created by Surface Defects in Capillary Electrophoresis. Journal of Colloid and Interface Science, 1999, 212, 338-349.	9.4	99
112	Foam drainage on the microscale. Journal of Colloid and Interface Science, 2004, 276, 420-438.	9.4	99
113	Dynamics of wetting: from inertial spreading to viscous imbibition. Journal of Physics Condensed Matter, 2009, 21, 464127.	1.8	98
114	Two-ply channels for faster wicking in paper-based microfluidic devices. Lab on A Chip, 2015, 15, 4461-4466.	6.0	98
115	The effect of surface tension on rimming flows in a partially filled rotating cylinder. Journal of Fluid Mechanics, 2003, 479, 65-98.	3.4	97
116	Dynamic, self-assembled aggregates of magnetized, millimeter-sized objects rotating at the liquid-air interface:â€ƒMacroscopic, two-dimensional classical artificial atoms and molecules. Physical Review E, 2001, 64, 011603.	2.1	95
117	The curved shape of Caulobacter crescentus enhances surface colonization in flow. Nature Communications, 2014, 5, 3824.	12.8	95
118	Surface-attached molecules control Staphylococcus aureus quorum sensing and biofilm development. Nature Microbiology, 2017, 2, 17080.	13.3	95
119	Pressure-Driven Laminar Flow in Tangential Microchannels:Â an Elastomeric Microfluidic Switch. Analytical Chemistry, 2001, 73, 4682-4687.	6.5	94
120	Spreading of Viscous Fluid Drops on a Solid Substrate Assisted by Thermal Fluctuations. Physical Review Letters, 2005, 95, 244505.	7.8	94
121	Verticalization of bacterial biofilms. Nature Physics, 2018, 14, 954-960.	16.7	92
122	The reciprocal theorem in fluid dynamics and transport phenomena. Journal of Fluid Mechanics, 2019, 879, .	3.4	92
123	Chaotic streamlines inside drops immersed in steady Stokes flows. Journal of Fluid Mechanics, 1991, 232, 629.	3.4	91
124	Mechanics of Interfacial Composite Materials. Langmuir, 2006, 22, 10204-10208.	3.5	91
125	Membraneless water filtration using CO2. Nature Communications, 2017, 8, 15181.	12.8	90
126	Microfluidic chest cavities reveal that transmural pressure controls the rate of lung development. Development (Cambridge), 2017, 144, 4328-4335.	2.5	88

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127	Nanoemulsions obtained via bubble-bursting at a compound interface. Nature Physics, 2014, 10, 606-612.	16.7	85
128	Solutal Marangoni flows of miscible liquids drive transport without surface contamination. Nature Physics, 2017, 13, 1105-1110.	16.7	85
129	Splashing on elastic membranes: The importance of early-time dynamics. Physics of Fluids, 2008, 20, .	4.0	84
130	Low Reynolds number motion of bubbles, drops and rigid spheres through fluidâ€"fluid interfaces. Journal of Fluid Mechanics, 1995, 287, 279-298.	3.4	83
131	Nonuniform growth and surface friction determine bacterial biofilm morphology on soft substrates. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 7622-7632.	7.1	82
132	Peristaltically driven channel flows with applications toward micromixing. Physics of Fluids, 2001, 13, 1837-1859.	4.0	80
133	Short and long time drop dynamics on lubricated substrates. Europhysics Letters, 2013, 104, 34008.	2.0	80
134	Marangoni Flow of Soluble Amphiphiles. Physical Review Letters, 2014, 112, .	7.8	80
135	Single-particle Brownian dynamics for characterizing the rheology of fluid Langmuir monolayers. Europhysics Letters, 2007, 79, 66005.	2.0	79
136	Reactions in double emulsions by flow-controlled coalescence of encapsulated drops. Lab on A Chip, 2011, 11, 2312.	6.0	79
137	Controlling viscous fingering in tapered Hele-Shaw cells. Physics of Fluids, 2013, 25, .	4.0	79
138	Flow rateâ€"pressure drop relation for deformable shallow microfluidic channels. Journal of Fluid Mechanics, 2018, 841, 267-286.	3.4	79
139	Dynamics of foam drainage. Physical Review E, 1998, 58, 2097-2106.	2.1	78
140	Flow rate through microfilters: Influence of the pore size distribution, hydrodynamic interactions, wall slip, and inertia. Physics of Fluids, 2014, 26, .	4.0	77
141	Robust liquid-infused surfaces through patterned wettability. Soft Matter, 2015, 11, 5023-5029.	2.7	77
142	Characterization of syringe-pump-driven induced pressure fluctuations in elastic microchannels. Lab on A Chip, 2015, 15, 1110-1115.	6.0	77
143	Foam drainage on the microscale II. Imaging flow through single Plateau borders. Journal of Colloid and Interface Science, 2004, 276, 439-449.	9.4	76
144	Controlling Viscous Fingering Using Time-Dependent Strategies. Physical Review Letters, 2015, 115, 174501.	7.8	76

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145	Flow through beds of porous particles. Chemical Engineering Science, 1993, 48, 3993-4005.	3.8	75
146	Effect of viscosity ratio on the shear-driven failure of liquid-infused surfaces. Physical Review Fluids, 2016, 1, .	2.5	75
147	Estimating interfacial tension via relaxation of drop shapes and filament breakup. AIChE Journal, 1994, 40, 385-394.	3.6	74
148	Unexpected trapping of particles at a T junction. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 4770-4775.	7.1	74
149	Collective hydrodynamics of deformable drops and bubbles in dilute low Reynolds number suspensions. Journal of Fluid Mechanics, 1995, 300, 231-263.	3.4	72
150	Flow-induced phase separation of active particles is controlled by boundary conditions. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 5403-5408.	7.1	72
151	Flow Directs Surface-Attached Bacteria to Twitch Upstream. Biophysical Journal, 2012, 103, 146-151.	0.5	70
152	Ordered Clusters and Dynamical States of Particles in a Vibrated Fluid. Physical Review Letters, 2002, 88, 234301.	7.8	69
153	Purcellâ€™s â€œrotatorâ€: mechanical rotation at low Reynolds number. European Physical Journal B, 2005, 47, 161-164.	1.5	69
154	Do magnetic micro-swimmers move like eukaryotic cells?. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2008, 464, 877-904.	2.1	69
155	Clinical Implications of a Mathematical Model of Benign Paroxysmal Positional Vertigo. Annals of the New York Academy of Sciences, 2005, 1039, 384-394.	3.8	68
156	Extensional deformation of Newtonian liquid bridges. Physics of Fluids, 1996, 8, 2568-2579.	4.0	67
157	An â€œoff-the-shelfâ€•capillary microfluidic device that enables tuning of the droplet breakup regime at constant flow rates. Lab on A Chip, 2013, 13, 4507.	6.0	67
158	Mechanical instability and interfacial energy drive biofilm morphogenesis. ELife, 2019, 8, .	6.0	67
159	Study of the Flow Field in the Magnetic Rod Interfacial Stress Rheometer. Langmuir, 2011, 27, 9345-9358.	3.5	66
160	Dynamics of self assembly of magnetized disks rotating at the liquid-air interface. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 4147-4151.	7.1	65
161	Dip coating for the alignment of carbon nanotubes on curved surfaces. Journal of Materials Chemistry, 2004, 14, 1299.	6.7	65
162	Enzymatic Reactions in Microfluidic Devices:â€‰ Michaelisâˆ’Menten Kinetics. Analytical Chemistry, 2008, 80, 3270-3276.	6.5	65

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163	A reciprocal theorem for Marangoni propulsion. Journal of Fluid Mechanics, 2014, 741, .	3.4	65
164	Droplet breakup in flow past an obstacle: A capillary instability due to permeability variations. Europhysics Letters, 2010, 92, 54002.	2.0	63
165	Stretching and break-up of saliva filaments during speech: A route for pathogen aerosolization and its potential mitigation. Physical Review Fluids, 2020, 5, .	2.5	63
166	Interfacial instabilities in a microfluidic Hele-Shaw cell. Soft Matter, 2008, 4, 1403.	2.7	62
167	Bacterial Biofilm Material Properties Enable Removal and Transfer by Capillary Peeling. Advanced Materials, 2018, 30, e1804153.	21.0	62
168	Philip Saffman and viscous flow theory. Journal of Fluid Mechanics, 2000, 409, 165-183.	3.4	61
169	Biophysical characterization of organelle-based RNA/protein liquid phases using microfluidics. Soft Matter, 2016, 12, 9142-9150.	2.7	61
170	Drag and diffusion coefficients of a spherical particle attached to a fluidâ€"fluid interface. Journal of Fluid Mechanics, 2016, 790, 607-618.	3.4	60
171	Spatial gene drives and pushed genetic waves. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 8452-8457.	7.1	60
172	In-Fiber Semiconductor Filament Arrays. Nano Letters, 2008, 8, 4265-4269.	9.1	59
173	A new wrinkle on liquid sheets: Turning the mechanism of viscous bubble collapse upside down. Science, 2020, 369, 685-688.	12.6	59
174	Propagation of a topological transition: The Rayleigh instability. Physics of Fluids, 1998, 10, 1052-1057.	4.0	58
175	The role of surface rheology in liquid film formation. Europhysics Letters, 2010, 90, 24002.	2.0	58
176	Motion of a Free-Settling Spherical Particle Driven by a Laser-Induced Bubble. Physical Review Letters, 2017, 119, 084501.	7.8	58
177	Cornered drops and rivulets. Physics of Fluids, 2007, 19, 042104.	4.0	57
178	Fabricating Shaped Microfibers with Inertial Microfluidics. Advanced Materials, 2014, 26, 3712-3717.	21.0	57
179	Cleaning by Surfactant Gradients: Particulate Removal from Porous Materials and the Significance of Rinsing in Laundry Detergency. Physical Review Applied, 2018, 9, .	3.8	57
180	Coated Gas Bubbles for the Continuous Synthesis of Hollow Inorganic Particles. Langmuir, 2012, 28, 37-41.	3.5	56

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181	Wetting on two parallel fibers: drop to column transitions. Soft Matter, 2013, 9, 271-276.	2.7	56
182	Hydrodynamically Driven Colloidal Assembly in Dip Coating. Physical Review Letters, 2013, 110, 188302.	7.8	56
183	Buckling of dielectric elastomeric plates for soft, electrically active microfluidic pumps. Soft Matter, 2014, 10, 4789-4794.	2.7	56
184	Towards improved social distancing guidelines: Space and time dependence of virus transmission from speech-driven aerosol transport between two individuals. Physical Review Fluids, 2020, 5, .	2.5	56
185	Minimization of thermodynamic costs in cancer cell invasion. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 1686-1691.	7.1	55
186	Flow regimes for fluid injection into a confined porous medium. Journal of Fluid Mechanics, 2015, 767, 881-909.	3.4	55
187	Heat/mass transfer from surface films to shear flows at arbitrary Peclet numbers. Physics of Fluids A, Fluid Dynamics, 1989, 1, 1112-1122.	1.6	54
188	Dynamics of elastocapillary rise. Journal of Fluid Mechanics, 2011, 679, 641-654.	3.4	54
189	Viscous Marangoni migration of a drop in a Poiseuille flow at low surface PÃ©clet numbers. Journal of Fluid Mechanics, 2014, 753, 535-552.	3.4	54
190	Oscillatory motions of circular disks and nearly spherical particles in viscous flows. Journal of Fluid Mechanics, 1998, 367, 329-358.	3.4	53
191	Hydraulic design of pine needles: one-dimensional optimization for single-vein leaves. Plant, Cell and Environment, 2006, 29, 803-809.	5.7	53
192	Microfluidic-based transcriptomics reveal force-independent bacterial rheosensing. Nature Microbiology, 2019, 4, 1274-1281.	13.3	53
193	Breakup of double emulsions in constrictions. Soft Matter, 2011, 7, 2345.	2.7	52
194	Bending of elastic fibres in viscous flows: the influence of confinement. Journal of Fluid Mechanics, 2013, 720, 517-544.	3.4	52
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