Howard A Stone

List of Publications by Citations

554 papers	39,625 citations	97 h-index	184 g-index
605 ext. papers	44,876 ext. citations	6.8 avg, IF	7.77 L-index

#	Paper	IF	Citations
554	Chaotic mixer for microchannels. *Science*, **2002**, 295, 647-51	33.3	2471
553	Formation of dispersions using "flow focusing" in microchannels. *Applied Physics Letters*, **2003**, 82, 364-366	3.4	1766
552	Monodisperse double emulsions generated from a microcapillary device. *Science*, **2005**, 308, 537-41	33.3	1687
551	Formation of droplets and bubbles in a microfluidic T-junction-scaling and mechanism of break-up. *Lab on A Chip*, **2006**, 6, 437-46	7.2	1550
550	Microscopic artificial swimmers. *Nature*, **2005**, 437, 862-5	50.4	1343
549	Dynamics of Drop Deformation and Breakup in Viscous Fluids. *Annual Review of Fluid Mechanics*, **1994**, 26, 65-102	22	893
548	Generation of monodisperse particles by using microfluidics: control over size, shape, and composition. *Angewandte Chemie - International Edition*, **2005**, 44, 724-8	16.4	642
547	Swimming in circles: motion of bacteria near solid boundaries. *Biophysical Journal*, **2006**, 90, 400-12	2.9	638
546	Effective slip in pressure-driven Stokes flow. *Journal of Fluid Mechanics*, **2003**, 489, 55-77	3.7	551
545	Formation of monodisperse bubbles in a microfluidic flow-focusing device. *Applied Physics Letters*, **2004**, 85, 2649-2651	3.4	501
544	Transition from squeezing to dripping in a microfluidic T-shaped junction. *Journal of Fluid Mechanics* , **2008**, 595, 141-161	3.7	485
543	Coalescence of liquid drops. *Journal of Fluid Mechanics*, **1999**, 401, 293-310	3.7	440
542	Experimental and theoretical scaling laws for transverse diffusive broadening in two-phase laminar flows in microchannels. *Applied Physics Letters*, **2000**, 76, 2376-2378	3.4	436
541	Dynamic self-assembly of magnetized, millimetre-sized objects rotating at a liquid-air interface. *Nature*, **2000**, 405, 1033-6	50.4	427
540	Mechanism for flow-rate controlled breakup in confined geometries: a route to monodisperse emulsions. *Physical Review Letters*, **2005**, 94, 164501	7.4	426
539	Microfluidics: Basic issues, applications, and challenges. *AICHE Journal*, **2001**, 47, 1250-1254	3.6	410
538	Influence of substrate conductivity on circulation reversal in evaporating drops. *Physical Review Letters*, **2007**, 99, 234502	7.4	408

537	An experimental study of transient effects in the breakup of viscous drops. *Journal of Fluid Mechanics*, **1986**, 173, 131-158	3.7	329
536	A Generalized View of Foam Drainage: Experiment and Theory. *Langmuir*, **2000**, 16, 6327-6341	4	311
535	Relaxation and breakup of an initially extended drop in an otherwise quiescent fluid. *Journal of Fluid Mechanics*, **1989**, 198, 399	3.7	311
534	Wrinkles and deep folds as photonic structures in photovoltaics. *Nature Photonics*, **2012**, 6, 327-332	33.9	310
533	The effects of surfactants on drop deformation and breakup. *Journal of Fluid Mechanics*, **1990**, 220, 161-186	3.7	308
532	A simple derivation of the time-dependent convective-diffusion equation for surfactant transport along a deforming interface. *Physics of Fluids A, Fluid Dynamics*, **1990**, 2, 111-112		299
531	Propulsion of Microorganisms by Surface Distortions. *Physical Review Letters*, **1996**, 77, 4102-4104	7.4	295
530	The pressure drop along rectangular microchannels containing bubbles. *Lab on A Chip*, **2007**, 7, 1479-89	7.2	290
529	The mechanical world of bacteria. *Cell*, **2015**, 161, 988-997	56.2	281
528	Microfluidic flow focusing: drop size and scaling in pressure versus flow-rate-driven pumping. *Electrophoresis*, **2005**, 26, 3716-24	3.6	271
527	Emulsification in a microfluidic flow-focusing device: effect of the viscosities of the liquids. *Microfluidics and Nanofluidics*, **2008**, 5, 585-594	2.8	264
526	Imbibition by polygonal spreading on microdecorated surfaces. *Nature Materials*, **2007**, 6, 661-4	27	242
525	Controlled assembly of jammed colloidal shells on fluid droplets. *Nature Materials*, **2005**, 4, 553-6	27	241
524	On self-propulsion of micro-machines at low Reynolds number: Purcell's three-link swimmer. *Journal of Fluid Mechanics*, **2003**, 490, 15-35	3.7	237
523	Dripping and jetting in microfluidic multiphase flows applied to particle and fiber synthesis. *Journal Physics D: Applied Physics*, **2013**, 46,	3	236
522	Capillary breakup of a viscous thread surrounded by another viscous fluid. *Physics of Fluids*, **1998**, 10, 2758-2764	4.4	231
521	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, 4345-50	11.5	230
520	Solutions to the public goods dilemma in bacterial biofilms. *Current Biology*, **2014**, 24, 50-55	6.3	229

519	Satellite and subsatellite formation in capillary breakup. *Journal of Fluid Mechanics*, **1992**, 243, 297	3.7	225
518	Inhaling to mitigate exhaled bioaerosols. *Proceedings of the National Academy of Sciences of the United States of America*, **2004**, 101, 17383-8	11.5	218
517	Type IV pili mechanochemically regulate virulence factors in Pseudomonas aeruginosa. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 7563-8	11.5	214
516	Non-coalescence of oppositely charged drops. *Nature*, **2009**, 461, 377-80	50.4	203
515	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, 16432-7	11.5	199
514	Wetting of flexible fibre arrays. *Nature*, **2012**, 482, 510-3	50.4	197
513	Surface Morphology of Drying Latex Films: Multiple Ring Formation. *Langmuir*, **2002**, 18, 3441-3445	4	196
512	Hierarchical folding of elastic membranes under biaxial compressive stress. *Nature Materials*, **2011**, 10, 952-7	27	190
511	Dynamics of coarsening foams: accelerated and self-limiting drainage. *Physical Review Letters*, **2001** , 86, 4704-7	7.4	188
510	Short-time dynamics of partial wetting. *Physical Review Letters*, **2008**, 100, 234501	7.4	183
509	Controlled Uniform Coating from the Interplay of Marangoni Flows and Surface-Adsorbed Macromolecules. *Physical Review Letters*, **2016**, 116, 124501	7.4	177
508	Shear-driven failure of liquid-infused surfaces. *Physical Review Letters*, **2015**, 114, 168301	7.4	175
507	Liquid Flow through Aqueous Foams: The Node-Dominated Foam Drainage Equation. *Physical Review Letters*, **1999**, 82, 4232-4235	7.4	169
506	Geometric cue for protein localization in a bacterium. *Science*, **2009**, 323, 1354-7	33.3	163
505	Dynamic self-assembly and control of microfluidic particle crystals. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 22413-8	11.5	162
504	Daughter bubble cascades produced by folding of ruptured thin films. *Nature*, **2010**, 465, 759-62	50.4	148
503	Scaling laws for the thrust production of flexible pitching panels. *Journal of Fluid Mechanics*, **2013**, 732, 29-46	3.7	147
502	Ice-phobic surfaces that are wet. *ACS Nano*, **2012**, 6, 6536-40	16.7	146

501	High-speed microfluidic differential manometer for cellular-scale hydrodynamics. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 538-42	11.5	141
500	Electrohydrodynamic deformation and interaction of drop pairs. *Journal of Fluid Mechanics*, **1998**, 368, 359-375	3.7	141
499	Control of interfacial instabilities using flow geometry. *Nature Physics*, **2012**, 8, 747-750	16.2	140
498	Cell Membranes Resist Flow. *Cell*, **2018**, 175, 1769-1779.e13	56.2	140
497	The effect of surfactant on the transient motion of Newtonian drops. *Physics of Fluids A, Fluid Dynamics*, **1993**, 5, 69-79		134
496	Laminar flow around corners triggers the formation of biofilm streamers. *Journal of the Royal Society Interface*, **2010**, 7, 1293-9	4.1	132
495	Imbibition in porous membranes of complex shape: quasi-stationary flow in thin rectangular segments. *Langmuir*, **2010**, 26, 1380-5	4	132
494	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, 10986-91	11.5	130
493	High-density regular arrays of nanometer-scale rods formed on silicon surfaces via femtosecond laser irradiation in water. *Nano Letters*, **2008**, 8, 2087-91	11.5	130
492	Cellular-scale hydrodynamics. *Biomedical Materials (Bristol)*, **2008**, 3, 034011	3.5	130
491	Controllable Microfluidic Production of Microbubbles in Water-in-Oil Emulsions and the Formation of Porous Microparticles. *Advanced Materials*, **2008**, 20, 3314-3318	24	130
490	Drop formation in viscous flows at a vertical capillary tube. *Physics of Fluids*, **1997**, 9, 2234-2242	4.4	129
489	Geometrical focusing of cells in a microfluidic device: an approach to separate blood plasma. *Biorheology*, **2006**, 43, 147-59	1.7	129
488	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, 257-61	11.5	125
487	Dissolution arrest and stability of particle-covered bubbles. *Physical Review Letters*, **2007**, 99, 188301	7.4	125
486	Hydrodynamic dispersion in shallow microchannels: the effect of cross-sectional shape. *Analytical Chemistry*, **2006**, 78, 387-92	7.8	124
485	Interfacial polygonal nanopatterning of stable microbubbles. *Science*, **2008**, 320, 1198-201	33.3	122
484	An accurate von Neumann's law for three-dimensional foams. *Physical Review Letters*, **2001**, 86, 2685-8	7.4	122

483	Buoyancy-driven interactions between two deformable viscous drops. *Journal of Fluid Mechanics*, **1993**, 256, 647-683	3.7	121
482	Architectural transitions in Vibrio cholerae biofilms at single-cell resolution. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, E2066-72	11.5	119
481	Hydrodynamics of particles embedded in a flat surfactant layer overlying a subphase of finite depth. *Journal of Fluid Mechanics*, **1998**, 369, 151-173	3.7	119
480	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	3	117
479	Shear stress increases the residence time of adhesion of Pseudomonas aeruginosa. *Biophysical Journal*, **2011**, 100, 341-50	2.9	114
478	The dynamic behavior of chemically "stiffened" red blood cells in microchannel flows. *Microvascular Research*, **2010**, 80, 37-43	3.7	114
477	Bending and twisting of soft materials by non-homogenous swelling. *Soft Matter*, **2011**, 7, 5188	3.6	113
476	On the dynamics of magnetically driven elastic filaments. *Journal of Fluid Mechanics*, **2006**, 554, 167	3.7	112
475	Effect of microtextured surface topography on the wetting behavior of eutectic gallium-indium alloys. *Langmuir*, **2014**, 30, 533-9	4	110
474	Pinching threads, singularities and the number 0.0304.... *Physics of Fluids*, **1996**, 8, 2827-2836	4.4	110
473	Colloidal crystallization and banding in a cylindrical geometry. *Journal of the American Chemical Society*, **2004**, 126, 5978-9	16.4	108
472	Pumping-out photo-surfactants from an air–water interface using light. *Soft Matter*, **2011**, 7, 7866	3.6	107
471	Breakup of concentric double emulsion droplets in linear flows. *Journal of Fluid Mechanics*, **1990**, 211, 123-156	3.7	107
470	Relaxation time of the topological T1 process in a two-dimensional foam. *Physical Review Letters*, **2006**, 97, 226101	7.4	104
469	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	3.7	104
468	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, 9084-8	11.5	102
467	Fiber coating with surfactant solutions. *Physics of Fluids*, **2002**, 14, 4055-4068	4.4	102
466	Critical angle for electrically driven coalescence of two conical droplets. *Physical Review Letters*, **2009**, 103, 164502	7.4	101

465	Microstructure, morphology, and lifetime of armored bubbles exposed to surfactants. *Langmuir*, **2006**, 22, 5986-90	4	101
464	Vibrio cholerae 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	11.5	100
463	Imbibition in geometries with axial variations. *Journal of Fluid Mechanics*, **2008**, 615, 335-344	3.7	100
462	Axial and lateral particle ordering in finite Reynolds number channel flows. *Physics of Fluids*, **2010**, 22, 081703	4.4	99
461	Thermophoresis: microfluidics characterization and separation. *Soft Matter*, **2010**, 6, 3489	3.6	99
460	Drops with conical ends in electric and magnetic fields. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **1999**, 455, 329-347	2.4	99
459	Morphology of femtosecond-laser-ablated borosilicate glass surfaces. *Applied Physics Letters*, **2003**, 83, 3030-3032	3.4	98
458	Viscoplastic Matrix Materials for Embedded 3D Printing. *ACS Applied Materials & Interfaces*, **2018**, 10, 23353-23361	9.5	97
457	Local and global consequences of flow on bacterial quorum sensing. *Nature Microbiology*, **2016**, 1, 15005	26.6	94
456	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	3.7	93
455	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	11.5	93
454	Two-peak and three-peak optimal complex networks. *Physical Review Letters*, **2004**, 92, 118702	7.4	91
453	Quantifying Dynamics in Phase-Separated Condensates Using Fluorescence Recovery after Photobleaching. *Biophysical Journal*, **2019**, 117, 1285-1300	2.9	90
452	Effective slip boundary conditions for arbitrary periodic surfaces: the surface mobility tensor. *Journal of Fluid Mechanics*, **2010**, 658, 409-437	3.7	90
451	Pressure-driven laminar flow in tangential microchannels: an elastomeric microfluidic switch. *Analytical Chemistry*, **2001**, 73, 4682-7	7.8	90
450	Electroosmotic Flows Created by Surface Defects in Capillary Electrophoresis. *Journal of Colloid and Interface Science*, **1999**, 212, 338-349	9.3	89
449	Two-ply channels for faster wicking in paper-based microfluidic devices. *Lab on A Chip*, **2015**, 15, 4461-6	7.2	87
448	Foam drainage on the microscale I. Modeling flow through single Plateau borders. *Journal of Colloid and Interface Science*, **2004**, 276, 420-38	9.3	87

447	Dynamic, self-assembled aggregates of magnetized, millimeter-sized objects rotating at the liquid-air interface: macroscopic, two-dimensional classical artificial atoms and molecules. *Physical Review E*, **2001**, 64, 011603	2.4	86
446	Secondary flow as a mechanism for the formation of biofilm streamers. *Biophysical Journal*, **2011**, 100, 1392-9	2.9	84
445	The effect of surface tension on rimming flows in a partially filled rotating cylinder. *Journal of Fluid Mechanics*, **2003**, 479, 65-98	3.7	83
444	Chaotic streamlines inside drops immersed in steady Stokes flows. *Journal of Fluid Mechanics*, **1991**, 232, 629	3.7	83
443	Liquid explosions induced by X-ray laser pulses. *Nature Physics*, **2016**, 12, 966-971	16.2	82
442	Mechanics of interfacial composite materials. *Langmuir*, **2006**, 22, 10204-8	4	81
441	A mathematical model for top-shelf vertigo: the role of sedimenting otoconia in BPPV. *Journal of Biomechanics*, **2004**, 37, 1137-46	2.9	81
440	Dynamics of wetting: from inertial spreading to viscous imbibition. *Journal of Physics Condensed Matter*, **2009**, 21, 464127	1.8	77
439	Low Reynolds number motion of bubbles, drops and rigid spheres through fluid-fluid interfaces. *Journal of Fluid Mechanics*, **1995**, 287, 279-298	3.7	77
438	Extracellular-matrix-mediated osmotic pressure drives Vibrio cholerae biofilm expansion and cheater exclusion. *Nature Communications*, **2017**, 8, 327	17.4	75
437	Spreading of viscous fluid drops on a solid substrate assisted by thermal fluctuations. *Physical Review Letters*, **2005**, 95, 244505	7.4	75
436	Single-particle Brownian dynamics for characterizing the rheology of fluid Langmuir monolayers. *Europhysics Letters*, **2007**, 79, 66005	1.6	73
435	Splashing on elastic membranes: The importance of early-time dynamics. *Physics of Fluids*, **2008**, 20, 082103	4.4	70
434	Dynamics of foam drainage. *Physical Review E*, **1998**, 58, 2097-2106	2.4	70
433	Estimating interfacial tension via relaxation of drop shapes and filament breakup. *AICHE Journal*, **1994**, 40, 385-394	3.6	70
432	Oil-Impregnated Nanoporous Oxide Layer for Corrosion Protection with Self-Healing. *Advanced Functional Materials*, **2017**, 27, 1606040	15.6	69
431	Robust liquid-infused surfaces through patterned wettability. *Soft Matter*, **2015**, 11, 5023-9	3.6	68
430	Reactions in double emulsions by flow-controlled coalescence of encapsulated drops. *Lab on A Chip* , **2011**, 11, 2312-5	7.2	68

429	Peristaltically driven channel flows with applications toward micromixing. *Physics of Fluids*, **2001**, 13, 1837-1859	4.4	67
428	Collective hydrodynamics of deformable drops and bubbles in dilute low Reynolds number suspensions. *Journal of Fluid Mechanics*, **1995**, 300, 231-263	3.7	67
427	Suppressing viscous fingering in structured porous media. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 4833-4838	11.5	66
426	Surface-attached molecules control Staphylococcus aureus quorum sensing and biofilm development. *Nature Microbiology*, **2017**, 2, 17080	26.6	64
425	Foam drainage on the microscale II. Imaging flow through single Plateau borders. *Journal of Colloid and Interface Science*, **2004**, 276, 439-49	9.3	64
424	Nanoemulsions obtained via bubble-bursting at a compound interface. *Nature Physics*, **2014**, 10, 606-612	16.2	63
423	Short and long time drop dynamics on lubricated substrates. *Europhysics Letters*, **2013**, 104, 34008	1.6	62
422	Extensional deformation of Newtonian liquid bridges. *Physics of Fluids*, **1996**, 8, 2568-2579	4.4	62
421	The curved shape of Caulobacter crescentus enhances surface colonization in flow. *Nature Communications*, **2014**, 5, 3824	17.4	61
420	Effect of viscosity ratio on the shear-driven failure of liquid-infused surfaces. *Physical Review Fluids*, **2016**, 1,	2.8	61
419	Flow through beds of porous particles. *Chemical Engineering Science*, **1993**, 48, 3993-4005	4.4	60
418	Dip coating for the alignment of carbon nanotubes on curved surfaces. *Journal of Materials Chemistry*, **2004**, 14, 1299		59
417	Purcell□s □otator□mechanical rotation at low Reynolds number. *European Physical Journal B*, **2005**, 47, 161-164	1.2	59
416	Microfluidic chest cavities reveal that transmural pressure controls the rate of lung development. *Development (Cambridge)*, **2017**, 144, 4328-4335	6.6	58
415	Flow rate through microfilters: Influence of the pore size distribution, hydrodynamic interactions, wall slip, and inertia. *Physics of Fluids*, **2014**, 26, 052004	4.4	58
414	Characterization of syringe-pump-driven induced pressure fluctuations in elastic microchannels. *Lab on A Chip*, **2015**, 15, 1110-5	7.2	57
413	Unexpected trapping of particles at a T junction. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 4770-5	11.5	57
412	A reciprocal theorem for Marangoni propulsion. *Journal of Fluid Mechanics*, **2014**, 741,	3.7	57

411	Enzymatic reactions in microfluidic devices: Michaelis-Menten kinetics. *Analytical Chemistry*, **2008**, 80, 3270-6	7.8	57
410	Membraneless water filtration using CO. *Nature Communications*, **2017**, 8, 15181	17.4	56
409	Study of the flow field in the magnetic rod interfacial stress rheometer. *Langmuir*, **2011**, 27, 9345-58	4	56
408	Philip Saffman and viscous flow theory. *Journal of Fluid Mechanics*, **2000**, 409, 165-183	3.7	56
407	Solutal Marangoni flows of miscible liquids drive transport without surface contamination. *Nature Physics*, **2017**, 13, 1105-1110	16.2	54
406	Droplet breakup in flow past an obstacle: A capillary instability due to permeability variations. *Europhysics Letters*, **2010**, 92, 54002	1.6	54
405	Do magnetic micro-swimmers move like eukaryotic cells?. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **2008**, 464, 877-904	2.4	54
404	An "off-the-shelf" capillary microfluidic device that enables tuning of the droplet breakup regime at constant flow rates. *Lab on A Chip*, **2013**, 13, 4507-11	7.2	53
403	Verticalization of bacterial biofilms. *Nature Physics*, **2018**, 14, 954-960	16.2	52
402	Interfacial instabilities in a microfluidic Hele-Shaw cell. *Soft Matter*, **2008**, 4, 1403-1413	3.6	52
401	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, 4147-51	11.5	52
400	Marangoni Flow of Soluble Amphiphiles. *Physical Review Letters*, **2014**, 112,	7.4	51
399	Flow directs surface-attached bacteria to twitch upstream. *Biophysical Journal*, **2012**, 103, 146-51	2.9	51
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397	Coated gas bubbles for the continuous synthesis of hollow inorganic particles. *Langmuir*, **2012**, 28, 37-414		50
396	Cornered drops and rivulets. *Physics of Fluids*, **2007**, 19, 042104	4.4	50
395	Propagation of a topological transition: The Rayleigh instability. *Physics of Fluids*, **1998**, 10, 1052-1057	4.4	50
394	Minimization of thermodynamic costs in cancer cell invasion. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 1686-91	11.5	49

393	In-fiber semiconductor filament arrays. *Nano Letters*, **2008**, 8, 4265-9	11.5	49
392	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	11.5	48
391	Buckling of dielectric elastomeric plates for soft, electrically active microfluidic pumps. *Soft Matter*, **2014**, 10, 4789-94	3.6	48
390	Fabricating shaped microfibers with inertial microfluidics. *Advanced Materials*, **2014**, 26, 3712-7	24	48
389	Controlling viscous fingering in tapered Hele-Shaw cells. *Physics of Fluids*, **2013**, 25, 092102	4.4	48
388	Viscous Marangoni migration of a drop in a Poiseuille flow at low surface Péclet numbers. *Journal of Fluid Mechanics*, **2014**, 753, 535-552	3.7	48
387	Ordered clusters and dynamical states of particles in a vibrated fluid. *Physical Review Letters*, **2002**, 88, 234301	7.4	48
386	Oscillatory motions of circular disks and nearly spherical particles in viscous flows. *Journal of Fluid Mechanics*, **1998**, 367, 329-358	3.7	48
385	Controlling Viscous Fingering Using Time-Dependent Strategies. *Physical Review Letters*, **2015**, 115, 174501	7.4	47
384	Hydraulic design of pine needles: one-dimensional optimization for single-vein leaves. *Plant, Cell and Environment*, **2006**, 29, 803-9	8.4	47
383	Dynamics of elastocapillary rise. *Journal of Fluid Mechanics*, **2011**, 679, 641-654	3.7	46
382	Drop production and tip-streaming phenomenon in a microfluidic flow-focusing device via an interfacial chemical reaction. *Langmuir*, **2010**, 26, 9233-9	4	46
381	Separation-driven coalescence of droplets: an analytical criterion for the approach to contact. *Journal of Fluid Mechanics*, **2009**, 632, 97-107	3.7	46
380	Three-dimensional flows in slowly varying planar geometries. *Physics of Fluids*, **2004**, 16, 3051-3062	4.4	46
379	Cell position fates and collective fountain flow in bacterial biofilms revealed by light-sheet microscopy. *Science*, **2020**, 369, 71-77	33.3	45
378	Clinical implications of a mathematical model of benign paroxysmal positional vertigo. *Annals of the New York Academy of Sciences*, **2005**, 1039, 384-94	6.5	45
377	Heat/mass transfer from surface films to shear flows at arbitrary Peclet numbers. *Physics of Fluids A, Fluid Dynamics*, **1989**, 1, 1112-1122		45
376	Touch- and Brush-Spinning of Nanofibers. *Advanced Materials*, **2015**, 27, 6526-32	24	44

375	Hydrodynamically driven colloidal assembly in dip coating. *Physical Review Letters*, **2013**, 110, 188302	7.4	44
374	Flow rate–pressure drop relation for deformable shallow microfluidic channels. *Journal of Fluid Mechanics*, **2018**, 841, 267-286	3.7	43
373	Breakup of double emulsions in constrictions. *Soft Matter*, **2011**, 7, 2345	3.6	43
372	Wetting on two parallel fibers: drop to column transitions. *Soft Matter*, **2013**, 9, 271-276	3.6	42
371	The effects of membrane cholesterol and simvastatin on red blood cell deformability and ATP release. *Microvascular Research*, **2012**, 83, 347-51	3.7	42
370	Conformal coating of particles in microchannels by magnetic forcing. *Applied Physics Letters*, **2011**, 99, 153509	3.4	42
369	Fluid motion of monomolecular films in a channel flow geometry. *Physics of Fluids*, **1995**, 7, 2931-2937	4.4	42
368	Drag and diffusion coefficients of a spherical particle attached to a fluid–fluid interface. *Journal of Fluid Mechanics*, **2016**, 790, 607-618	3.7	42
367	Drop impact on a flexible fiber. *Soft Matter*, **2016**, 12, 200-8	3.6	41
366	Filaments in curved streamlines: Rapid formation of biofilm streamers. *New Journal of Physics*, **2014**, 16, 065024	2.9	41
365	Source-like solution for radial imbibition into a homogeneous semi-infinite porous medium. *Langmuir*, **2012**, 28, 4208-12	4	41
364	The reciprocal theorem in fluid dynamics and transport phenomena. *Journal of Fluid Mechanics*, **2019**, 879,	3.7	40
363	Flow regimes for fluid injection into a confined porous medium. *Journal of Fluid Mechanics*, **2015**, 767, 881-909	3.7	39
362	Biophysical characterization of organelle-based RNA/protein liquid phases using microfluidics. *Soft Matter*, **2016**, 12, 9142-9150	3.6	38
361	Dynamic fracture of nonglassy suspensions. *Physical Review Letters*, **2013**, 110, 148304	7.4	38
360	Heterogeneity and the role of normal stresses during the extensional thinning of non-Brownian shear-thickening fluids. *Physical Review Letters*, **2011**, 107, 134503	7.4	38
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