

# Robert Davis

## List of Publications by Year in descending order

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172  
papers

8,315  
citations

53660

45  
h-index

53109

85  
g-index

174  
all docs

174  
docs citations

174  
times ranked

4669  
citing authors

#	ARTICLE	IF	CITATIONS
1	The behavior of suspensions and macromolecular solutions in crossflow microfiltration. <i>Journal of Membrane Science</i> , 1994, 96, 1-58.	4.1	1,180
2	The elastohydrodynamic collision of two spheres. <i>Journal of Fluid Mechanics</i> , 1986, 163, 479-497.	1.4	327
3	A Novel Sequential Photoinduced Living Graft Polymerization. <i>Macromolecules</i> , 2000, 33, 331-335.	2.2	288
4	The lubrication force between two viscous drops. <i>Physics of Fluids A, Fluid Dynamics</i> , 1989, 1, 77-81.	1.6	224
5	Protein Fouling of Track-Etched Polycarbonate Microfiltration Membranes. <i>Journal of Colloid and Interface Science</i> , 1994, 167, 104-116.	5.0	216
6	On the buoyancy-driven motion of a drop towards a rigid surface or a deformable interface. <i>Journal of Fluid Mechanics</i> , 1990, 217, 547-573.	1.4	184
7	A novel boundary-integral algorithm for viscous interaction of deformable drops. <i>Physics of Fluids</i> , 1997, 9, 1493-1511.	1.6	167
8	Modeling of Fouling of Crossflow Microfiltration Membranes. <i>Separation and Purification Reviews</i> , 1992, 21, 75-126.	0.8	165
9	Elastohydrodynamic collision and rebound of spheres: Experimental verification. <i>Physics of Fluids</i> , 1988, 31, 1324.	1.4	156
10	Motion of a particle between two parallel plane walls in low-Reynolds-number Poiseuille flow. <i>Physics of Fluids</i> , 2003, 15, 1711.	1.6	148
11	The rate of collisions due to Brownian or gravitational motion of small drops. <i>Journal of Fluid Mechanics</i> , 1991, 230, 479-504.	1.4	142
12	Close approach and deformation of two viscous drops due to gravity and van der waals forces. <i>Journal of Colloid and Interface Science</i> , 1991, 144, 412-433.	5.0	141
13	Membrane fouling during microfiltration of protein mixtures. <i>Journal of Membrane Science</i> , 1996, 119, 269-284.	4.1	136
14	Cross-flow microfiltration with high-frequency reverse filtration. <i>AIChE Journal</i> , 1995, 41, 501-508.	1.8	115
15	Spreading of the interface at the top of a slightly polydisperse sedimenting suspension. <i>Journal of Fluid Mechanics</i> , 1988, 196, 107-134.	1.4	111
16	The collision rate of small drops in linear flow fields. <i>Journal of Fluid Mechanics</i> , 1994, 265, 161-188.	1.4	111
17	Elastohydrodynamic rebound of spheres from coated surfaces. <i>Journal of Fluid Mechanics</i> , 2002, 468, 107-119.	1.4	105
18	The rate of coagulation of a dilute polydisperse system of sedimenting spheres. <i>Journal of Fluid Mechanics</i> , 1984, 145, 179.	1.4	104

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19	Cusping, capture, and breakup of interacting drops by a curvatureless boundary-integral algorithm. <i>Journal of Fluid Mechanics</i> , 1999, 391, 249-292.	1.4	101
20	Factors affecting membrane fouling reduction by surface modification and backpulsing. <i>Journal of Membrane Science</i> , 2001, 189, 255-270.	4.1	99
21	Inclined Sedimentation for Selective Retention of Viable Hybridomas in a Continuous Suspension Bioreactor. <i>Biotechnology Progress</i> , 1990, 6, 458-464.	1.3	98
22	Microfiltration of protein mixtures and the effects of yeast on membrane fouling. <i>Journal of Membrane Science</i> , 1999, 155, 113-122.	4.1	97
23	Buoyancy-driven coalescence of slightly deformable drops. <i>Journal of Fluid Mechanics</i> , 1997, 346, 117-148.	1.4	90
24	Hindered settling function with no empirical parameters for polydisperse suspensions. <i>AIChE Journal</i> , 1994, 40, 570-575.	1.8	89
25	Sedimentation of algae flocculated using naturally-available, magnesium-based flocculants. <i>Algal Research</i> , 2012, 1, 32-39.	2.4	89
26	Experimental verification of the shear-induced hydrodynamic diffusion model of crossflow microfiltration. <i>Journal of Membrane Science</i> , 1991, 62, 249-273.	4.1	88
27	An Efficient Algorithm for Hydrodynamical Interaction of Many Deformable Drops. <i>Journal of Computational Physics</i> , 2000, 157, 539-587.	1.9	86
28	The effect of slight deformation on droplet coalescence in linear flows. <i>Physics of Fluids</i> , 2001, 13, 1178-1190.	1.6	81
29	Modeling of concentration polarization and depolarization with high-frequency backpulsing. <i>Journal of Membrane Science</i> , 1996, 121, 229-242.	4.1	80
30	Low-Reynolds-number motion of a deformable drop between two parallel plane walls. <i>International Journal of Multiphase Flow</i> , 2007, 33, 182-206.	1.6	79
31	Direct visual observation of yeast deposition and removal during microfiltration. <i>Journal of Membrane Science</i> , 2001, 189, 217-230.	4.1	77
32	HYDRODYNAMIC MODEL AND EXPERIMENTS FOR CROSSFLOW MICROFILTRATION. <i>Chemical Engineering Communications</i> , 1987, 49, 217-234.	1.5	68
33	Flux enhancement for membrane filtration of bacterial suspensions using high-frequency backpulsing. <i>Journal of Membrane Science</i> , 1998, 60, 77-87.		68
34	Shear flow of highly concentrated emulsions of deformable drops by numerical simulations. <i>Journal of Fluid Mechanics</i> , 2002, 455, 21-61.	1.4	68
35	The viscosity of a dilute suspension of rough spheres. <i>Journal of Fluid Mechanics</i> , 2000, 421, 339-367.	1.4	65
36	Dynamics of induced CAT expression in <i>E. coli</i> . <i>Biotechnology and Bioengineering</i> , 1991, 38, 749-760.	1.7	63

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37	Protein recovery from bacterial cell debris using crossflow microfiltration with backpulsing. <i>Journal of Membrane Science</i> , 1996, 118, 259-268.	4.1	61
38	Soft-lithography fabrication of microfluidic features using thiol-ene formulations. <i>Lab on A Chip</i> , 2011, 11, 2772.	3.1	59
39	Crossflow microfiltration of yeast suspensions in tubular filters. <i>Biotechnology Progress</i> , 1993, 9, 625-634.	1.3	56
40	Theoretical and experimental flux maximization by optimization of backpulsing. <i>Journal of Membrane Science</i> , 2000, 165, 225-236.	4.1	54
41	Effects of Added Yeast on Protein Transmission and Flux in Cross-Flow Membrane Microfiltration. <i>Biotechnology Progress</i> , 1999, 15, 472-479.	1.3	51
42	Shear stress of a monolayer of rough spheres. <i>Journal of Fluid Mechanics</i> , 2002, 452, 425-441.	1.4	50
43	A boundary-integral study of a drop squeezing through interparticle constrictions. <i>Journal of Fluid Mechanics</i> , 2006, 564, 227.	1.4	50
44	Effects of surface roughness on a sphere sedimenting through a dilute suspension of neutrally buoyant spheres. <i>Physics of Fluids A, Fluid Dynamics</i> , 1992, 4, 2607-2619.	1.6	49
45	Microfiltration of protein-cell mixtures with crossflushing or backflushing. <i>Journal of Membrane Science</i> , 2001, 183, 1-14.	4.1	49
46	Oblique collisions and rebound of spheres from a wetted surface. <i>Journal of Fluid Mechanics</i> , 2004, 509, 63-81.	1.4	47
47	Yeast cake layers as secondary membranes in dead-end microfiltration of bovine serum albumin. <i>Journal of Membrane Science</i> , 1994, 92, 247-256.	4.1	46
48	Cellulase Recovery via Membrane Filtration. <i>Applied Biochemistry and Biotechnology</i> , 2001, 91-93, 297-310.	1.4	46
49	The influence of pressure-dependent density and viscosity on the elastohydrodynamic collision and rebound of two spheres. <i>Journal of Fluid Mechanics</i> , 1989, 209, 501-519.	1.4	45
50	The lubrication force between spherical drops, bubbles and rigid particles in a viscous fluid. <i>International Journal of Multiphase Flow</i> , 1989, 15, 627-638.	1.6	43
51	Solid-solid contacts due to surface roughness and their effects on suspension behaviour. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2003, 361, 871-894.	1.6	43
52	In situ fabrication of macroporous polymer networks within microfluidic devices by living radical photopolymerization and leaching. <i>Lab on A Chip</i> , 2005, 5, 151.	3.1	43
53	Modeling and Measurement of Yeast Flocculation. <i>Biotechnology Progress</i> , 1986, 2, 91-97.	1.3	42
54	Particle transport in Poiseuille flow in narrow channels. <i>International Journal of Multiphase Flow</i> , 2005, 31, 529-547.	1.6	42

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55	The nature of particle contacts in sedimentation. <i>Physics of Fluids</i> , 1996, 8, 1389-1396.	1.6	41
56	Buoyancy-driven viscous interaction of a rising drop with a smaller trailing drop. <i>Physics of Fluids</i> , 1999, 11, 1016-1028.	1.6	40
57	Large-scale simulations of concentrated emulsion flows. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2003, 361, 813-845.	1.6	40
58	Deposition of foulant particles during tangential flow filtration. <i>Journal of Membrane Science</i> , 2006, 271, 101-113.	4.1	39
59	Motion of Deformable Drops Through Porous Media. <i>Annual Review of Fluid Mechanics</i> , 2017, 49, 71-90.	10.8	39
60	The sedimentation of polydisperse suspensions in vessels having inclined walls. <i>International Journal of Multiphase Flow</i> , 1982, 8, 571-585.	1.6	38
61	Particle classification for dilute suspensions using an inclined settler. <i>Industrial &amp; Engineering Chemistry Research</i> , 1989, 28, 785-793.	1.8	38
62	Yeast foulant removal by backpulses in crossflow microfiltration. <i>Journal of Membrane Science</i> , 2002, 208, 389-404.	4.1	38
63	Cellulase Retention and Sugar Removal by Membrane Ultrafiltration During Lignocellulosic Biomass Hydrolysis. <i>Applied Biochemistry and Biotechnology</i> , 2004, 114, 585-600.	1.4	38
64	Droplet Growth by Coalescence in Binary Fluid Mixtures. <i>Physical Review Letters</i> , 2001, 87, 098304.	2.9	37
65	Application of cross-flow microfiltration with rapid backpulsing to wastewater treatment. <i>Journal of Hazardous Materials</i> , 1998, 63, 179-197.	6.5	35
66	A multipole-accelerated algorithm for close interaction of slightly deformable drops. <i>Journal of Computational Physics</i> , 2005, 207, 695-735.	1.9	35
67	Near-contact electrophoretic particle motion. <i>Journal of Fluid Mechanics</i> , 1995, 288, 103-122.	1.4	34
68	Emulsion flow through a packed bed with multiple drop breakup. <i>Journal of Fluid Mechanics</i> , 2013, 725, 611-663.	1.4	33
69	Gravity-induced coalescence of drops at arbitrary Péclet numbers. <i>Journal of Fluid Mechanics</i> , 1994, 280, 119-148.	1.4	32
70	Large-scale oligoribonucleotide production. <i>Current Opinion in Biotechnology</i> , 1995, 6, 213-217.	3.3	32
71	Hydrodynamic diffusion of a sphere sedimenting through a dilute suspension of neutrally buoyant spheres. <i>Journal of Fluid Mechanics</i> , 1992, 236, 513-533.	1.4	31
72	Protein recovery from cell debris using rotary and tangential crossflow microfiltration. <i>Biotechnology and Bioengineering</i> , 1995, 47, 155-164.	1.7	31

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73	Direct observation of membrane cleaning via rapid backpulsing. <i>Desalination</i> , 2002, 146, 135-140.	4.0	31
74	Collision rates of spherical drops or particles in a shear flow at arbitrary Péclet numbers. <i>Physics of Fluids</i> , 1995, 7, 2310-2327.	1.6	30
75	Simultaneous sedimentation and coalescence of a dilute dispersion of small drops. <i>Journal of Fluid Mechanics</i> , 1995, 295, 247.	1.4	29
76	Electroosmotic flow in channels with step changes in zeta potential and cross section. <i>Journal of Colloid and Interface Science</i> , 2004, 270, 242-246.	5.0	28
77	A water-activated pump for portable microfluidic applications. <i>Journal of Colloid and Interface Science</i> , 2007, 305, 239-249.	5.0	28
78	Flotation rates of fine, spherical particles and droplets. <i>Chemical Engineering Science</i> , 1994, 49, 3923-3941.	1.9	27
79	Yeast-Fouling Effects in Cross-Flow Microfiltration with Periodic Reverse Filtration. <i>Industrial &amp; Engineering Chemistry Research</i> , 2003, 42, 130-139.	1.8	27
80	Continuous recombinant bacterial fermentations utilizing selective flocculation and recycle. <i>Biotechnology Progress</i> , 1990, 6, 7-12.	1.3	26
81	Classification of concentrated suspensions using inclined settlers. <i>International Journal of Multiphase Flow</i> , 1996, 22, 563-574.	1.6	26
82	Algorithm for direct numerical simulation of emulsion flow through a granular material. <i>Journal of Computational Physics</i> , 2008, 227, 7841-7888.	1.9	26
83	Wave formation and growth during sedimentation in narrow tilted channels. <i>Physics of Fluids</i> , 1983, 26, 2055.	1.4	25
84	Application of Solution Equilibrium Analysis to in Vitro RNA Transcription. <i>Biotechnology Progress</i> , 1997, 13, 747-756.	1.3	25
85	Low-velocity collisions of particles with a dry or wet wall. <i>Microgravity Science and Technology</i> , 2005, 17, 18-25.	0.7	25
86	Combined Sedimentation and Filtration Process for Cellulase Recovery During Hydrolysis of Lignocellulosic Biomass. <i>Applied Biochemistry and Biotechnology</i> , 2002, 98-100, 1161-1172.	1.4	23
87	Elastohydrodynamic theory for wet oblique collisions. <i>Powder Technology</i> , 2006, 168, 42-52.	2.1	23
88	Particle concentration using inclined sedimentation via sludge accumulation and removal for algae harvesting. <i>Chemical Engineering Science</i> , 2013, 91, 79-85.	1.9	23
89	Microhydrodynamics of particulate. <i>Advances in Colloid and Interface Science</i> , 1993, 43, 17-50.	7.0	22
90	The flotation rates of fine spherical particles under Brownian and convective motion. <i>Chemical Engineering Science</i> , 1999, 54, 149-157.	1.9	22

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91	Interaction of two touching spheres in a viscous fluid. <i>Chemical Engineering Science</i> , 2002, 57, 1997-2006.	1.9	22
92	Modeling and verification of fluid-responsive polymer pumps for microfluidic systems. <i>Chemical Engineering Science</i> , 2004, 59, 5967-5974.	1.9	22
93	Mechanisms for agglomeration and deagglomeration following oblique collisions of wet particles. <i>Physical Review E</i> , 2012, 86, 021303.	0.8	21
94	Agglomeration and de-agglomeration of rotating wet doublets. <i>Journal of Fluid Mechanics</i> , 2012, 708, 128-148.	1.4	21
95	RNA Transcription from Immobilized DNA Templates. <i>Biotechnology Progress</i> , 1995, 11, 393-396.	1.3	20
96	Mass transfer to a surfactant-covered bubble or drop. <i>AIChE Journal</i> , 1999, 45, 1355-1358.	1.8	20
97	Motion of a sphere down a rough plane in a viscous fluid. <i>International Journal of Multiphase Flow</i> , 2002, 28, 1787-1800.	1.6	20
98	Competitive yeast fermentation with selective flocculation and recycle. <i>Biotechnology and Bioengineering</i> , 1989, 33, 767-776.	1.7	19
99	Near-contact thermocapillary motion of two non-conducting drops. <i>Journal of Fluid Mechanics</i> , 1993, 256, 107-131.	1.4	19
100	Empirical Evaluation of Inhibitory Product, Substrate, and Enzyme Effects During the Enzymatic Saccharification of Lignocellulosic Biomass. <i>Applied Biochemistry and Biotechnology</i> , 2010, 161, 468-482.	1.4	19
101	Buoyancy-induced squeezing of a deformable drop through an axisymmetric ring constriction. <i>Physics of Fluids</i> , 2010, 22, .	1.6	19
102	Extensional and shear flows, and general rheology of concentrated emulsions of deformable drops. <i>Journal of Fluid Mechanics</i> , 2015, 779, 197-244.	1.4	19
103	Dynamic simulation of spheroid motion between two parallel plane walls in low-Reynolds-number Poiseuille flow. <i>Journal of Fluid Mechanics</i> , 2006, 553, 187.	1.4	18
104	Modeling and optimization of a batch process for in vitro RNA production. , 1997, 56, 210-220.		17
105	Application of a Fed-Batch System To Produce RNA by In Vitro Transcription. <i>Biotechnology Progress</i> , 1999, 15, 174-184.	1.3	17
106	MEMBRANE SURFACE MODIFICATION AND BACKPULSING FOR WASTEWATER TREATMENT. <i>Separation Science and Technology</i> , 2001, 36, 1557-1573.	1.3	17
107	Ellipsoidal model for deformable drops and application to non-Newtonian emulsion flow. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2002, 102, 281-298.	1.0	17
108	Collisions of spheres with wet and dry porous layers on a solid wall. <i>Chemical Engineering Science</i> , 2006, 61, 417-427.	1.9	17

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109	Gravity-driven motion of a deformable drop or bubble near an inclined plane at low Reynolds number. <i>International Journal of Multiphase Flow</i> , 2008, 34, 408-418.	1.6	17
110	The Effects of van der Waals Attractions on Cloud Droplet Growth by Coalescence. <i>Journals of the Atmospheric Sciences</i> , 1990, 47, 1075-1080.	0.6	16
111	Experimental study of two interacting drops in an immiscible fluid. <i>Journal of Fluid Mechanics</i> , 1993, 249, 227.	1.4	16
112	Microflotation of fine particles in the presence of a bulk-insoluble surfactant. <i>International Journal of Multiphase Flow</i> , 2000, 26, 891-920.	1.6	16
113	Buoyancy-driven interactions of viscous drops with deforming interfaces. <i>Journal of Fluid Mechanics</i> , 2001, 446, 253-269.	1.4	16
114	Squeezing of a periodic emulsion through a cubic lattice of spheres. <i>Physics of Fluids</i> , 2008, 20, 040803.	1.6	16
115	Sedimentation of axisymmetric particles in shear flows. <i>Physics of Fluids A, Fluid Dynamics</i> , 1991, 3, 2051-2060.	1.6	15
116	Hydrodynamic separation of particles using pinched flow fractionation. <i>AIChE Journal</i> , 2013, 59, 3444-3457.	1.8	15
117	Collective effects of temperature gradients and gravity on droplet coalescence. <i>Physics of Fluids A, Fluid Dynamics</i> , 1993, 5, 1602-1613.	1.6	14
118	Buoyancy-driven coalescence of spherical drops covered with incompressible surfactant at arbitrary Péclet number. <i>Journal of Colloid and Interface Science</i> , 2004, 270, 205-220.	5.0	14
119	General rheology of highly concentrated emulsions with insoluble surfactant. <i>Journal of Fluid Mechanics</i> , 2017, 816, 661-704.	1.4	14
120	Low-Reynolds-number motion of a heavy sphere between two parallel plane walls. <i>Chemical Engineering Science</i> , 2006, 61, 1932-1945.	1.9	13
121	Motion of deformable drops through granular media and other confined geometries. <i>Journal of Colloid and Interface Science</i> , 2009, 334, 113-123.	5.0	12
122	EXPERIMENTAL DETERMINATION OF THE PERMEABILITY AND RELATIVE VISCOSITY FOR FINE LATEXES AND YEAST SUSPENSIONS. <i>Chemical Engineering Communications</i> , 1990, 91, 11-28.	1.5	11
123	General Ellipsoidal Model for Deformable Drops in Viscous Flows. <i>Industrial &amp; Engineering Chemistry Research</i> , 2002, 41, 6270-6278.	1.8	11
124	Simplified model for droplet growth in shear flow. <i>AIChE Journal</i> , 2003, 49, 546-548.	1.8	11
125	Surfactant effects on buoyancy-driven viscous interactions of deformable drops. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2006, 282-283, 50-60.	2.3	11
126	Simulations of gravity-induced trapping of a deformable drop in a three-dimensional constriction. <i>Journal of Colloid and Interface Science</i> , 2012, 383, 167-176.	5.0	11



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127	Particle collection by permeable drops. <i>Physical Review Fluids</i> , 2018, 3, .	1.0	11
128	Interaction of sedimenting spheres with multiple surface roughness scales. <i>Journal of Fluid Mechanics</i> , 2003, 492, 101-129.	1.4	10
129	Drops with insoluble surfactant squeezing through interparticle constrictions. <i>Journal of Fluid Mechanics</i> , 2019, 878, 324-355.	1.4	10
130	Microfiltration in Pharmaceuticals and Biotechnology. , 2019, , 29-67.		10
131	Water transport by osmosis through a high-internal-phase, water-in-oil emulsion. <i>Chemical Engineering Science</i> , 2021, 232, 116348.	1.9	8
132	Electrokinetic isolation of vesicles and ribosomes derived from <i>Serratia marcescens</i> . <i>Biotechnology Progress</i> , 1992, 8, 429-435.	1.3	7
133	An adjustable expression system for controlling growth rate, plasmid maintenance, and culture dynamics. <i>Biotechnology and Bioengineering</i> , 1992, 40, 1027-1038.	1.7	7
134	Optimization of repeated-batch transcription for RNA production. <i>Biotechnology and Bioengineering</i> , 2000, 69, 679-687.	1.7	7
135	Infrasonic pulsing for foulant removal in crossflow microfiltration. <i>Journal of Membrane Science</i> , 2000, 180, 157-169.	4.1	7
136	Cellulase Retention and Sugar Removal by Membrane Ultrafiltration During Lignocellulosic Biomass Hydrolysis. , 2004, , 585-599.		7
137	Computational modeling and comparison of three co-laminar microfluidic mixing techniques. <i>Microfluidics and Nanofluidics</i> , 2008, 5, 43-53.	1.0	7
138	Simultaneous and sequential collisions of three wetted spheres. <i>Journal of Fluid Mechanics</i> , 2019, 881, 983-1009.	1.4	7
139	Simulation of drop motion and breakup in narrow pores. <i>Chemical Engineering Science</i> , 2021, 229, 116057.	1.9	7
140	Cell Separations Using Differential Sedimentation in Inclined Settlers. <i>ACS Symposium Series</i> , 1991, , 113-127.	0.5	6
141	MICROFLOTATION OF FINE OIL DROPLETS BY SMALL AIR BUBBLES: EXPERIMENT AND THEORY. <i>Separation Science and Technology</i> , 2001, 36, 1-15.	1.3	6
142	Gravity-induced collisions of spherical drops covered with compressible surfactant. <i>Journal of Fluid Mechanics</i> , 2011, 667, 369-402.	1.4	6
143	A moving-frame boundary-integral method for particle transport in microchannels of complex shape. <i>Physics of Fluids</i> , 2012, 24, 043302.	1.6	6
144	A generalized Oldroyd's model for non-Newtonian liquids with applications to a dilute emulsion of deformable drops. <i>Journal of Rheology</i> , 2014, 58, 759-777.	1.3	6

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145	Boundary-integral study of a freely suspended drop in a T-shaped microchannel. <i>International Journal of Multiphase Flow</i> , 2020, 130, 103379.	1.6	6
146	Drop squeezing between arbitrary smooth obstacles. <i>Journal of Fluid Mechanics</i> , 2021, 908, .	1.4	6
147	Creeping motion and pending breakup of drops and bubbles near an inclined wall. <i>Physics of Fluids</i> , 2009, 21, .	1.6	5
148	Enhanced sediment flow in inclined settlers via surface modification or applied vibration for harvesting microalgae. <i>Algal Research</i> , 2013, 2, 369-377.	2.4	5
149	Fractionation of Organic Fuel Precursors from Electrolytes with Membranes. <i>Industrial &amp; Engineering Chemistry Research</i> , 2013, 52, 10530-10539.	1.8	5
150	Modelling of particle capture by expanding droplets. <i>Journal of Fluid Mechanics</i> , 2021, 912, .	1.4	5
151	Oblique collisions of two wetted spheres. <i>Physical Review Fluids</i> , 2020, 5, .	1.0	5
152	Gravitational collision efficiencies of small viscous drops at finite Stokes numbers and low Reynolds numbers. <i>International Journal of Multiphase Flow</i> , 2022, 146, 103876.	1.6	5
153	Separation and classification of axisymmetric particles in an inclined settler. <i>International Journal of Multiphase Flow</i> , 1993, 19, 803-816.	1.6	4
154	Growth of multiparticle aggregates in sedimenting suspensions. <i>Journal of Fluid Mechanics</i> , 2014, 742, 577-617.	1.4	4
155	Algorithm for flow of highly-concentrated emulsions through a narrow constriction. <i>Journal of Computational Physics</i> , 2021, 438, 110363.	1.9	4
156	Cell separations using targeted monoclonal antibodies against overproduced surface proteins. <i>Applied Biochemistry and Biotechnology</i> , 1994, 45-46, 233-244.	1.4	3
157	Modeling of repeated-batch transcription for production of RNA. <i>Journal of Biotechnology</i> , 1999, 71, 25-37.	1.9	3
158	Internal circulation and mixing within tight-squeezing deformable droplets. <i>Physical Review E</i> , 2021, 103, 043106.	0.8	3
159	Optimal chemostat cascades for periplasmic protein production. <i>Biotechnology Progress</i> , 1990, 6, 430-436.	1.3	2
160	Secondary Membranes for Flux Optimization in Membrane Filtration of Biologic Suspensions. <i>Applied Biochemistry and Biotechnology</i> , 2004, 114, 417-432.	1.4	2
161	Drop trapping in axisymmetric constrictions with arbitrary contact angle. <i>Physics of Fluids</i> , 2012, 24, 062102.	1.6	2
162	Particle interactions with permeable drops in shear flow. <i>Powder Technology</i> , 2021, 383, 410-417.	2.1	2

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163	Diffusion-limited osmotic swelling of droplets. <i>Physics of Fluids</i> , 2021, 33, 117109.	1.6	2
164	Boundary-Integral Algorithm for Drop Squeezing through a Granular Material. <i>AIP Conference Proceedings</i> , 2008, , .	0.3	1
165	Effects of emulsifier concentration in a high-internal-phase, W/O emulsion binder on particle agglomeration. <i>Chemical Engineering Science</i> , 2022, 248, 117098.	1.9	1
166	Flux enhancement for membrane filtration of bacterial suspensions using high-frequency backpulsing. , 1998, 60, 77.		1
167	Combined Sedimentation and Filtration Process for Cellulase Recovery During Hydrolysis of Lignocellulosic Biomass. , 2002, , 1161-1172.		1
168	Interactions Between Aggregated Particles in Stokes Flow. <i>AIP Conference Proceedings</i> , 2008, , .	0.3	0
169	Direct Visual Observation of Microfiltration Membrane Fouling and Cleaning. , 0, , 9-32.		0
170	Improving the facultyâ€student experience in chemical engineering. <i>AICHE Journal</i> , 2020, 66, e16960.	1.8	0
171	BUOYANCY-DRIVEN INTERACTIONS OF VISCOUS DROPS WITH DEFORMING INTERFACES. , 2002, , 252-252.		0
172	Secondary Membranes for Flux Optimization in Membrane Filtration of Biologic Suspensions. , 2004, , 417-432.		0