

Robert Davis

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169
papers

7,251
citations

43
h-index

80
g-index

174
ext. papers

7,657
ext. citations

4.8
avg, IF

5.96
L-index

#	Paper	IF	Citations
169	The behavior of suspensions and macromolecular solutions in crossflow microfiltration. <i>Journal of Membrane Science</i> , 1994 , 96, 1-58	9.6	1050
168	The elastohydrodynamic collision of two spheres. <i>Journal of Fluid Mechanics</i> , 1986 , 163, 479-497	3.7	280
167	A Novel Sequential Photoinduced Living Graft Polymerization. <i>Macromolecules</i> , 2000 , 33, 331-335	5.5	272
166	Protein Fouling of Track-Etched Polycarbonate Microfiltration Membranes. <i>Journal of Colloid and Interface Science</i> , 1994 , 167, 104-116	9.3	197
165	The lubrication force between two viscous drops. <i>Physics of Fluids A, Fluid Dynamics</i> , 1989 , 1, 77-81		182
164	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	3.7	165
163	A novel boundary-integral algorithm for viscous interaction of deformable drops. <i>Physics of Fluids</i> , 1997 , 9, 1493-1511	4.4	149
162	Modeling of Fouling of Crossflow Microfiltration Membranes. <i>Separation and Purification Reviews</i> , 1992 , 21, 75-126		145
161	Motion of a particle between two parallel plane walls in low-Reynolds-number Poiseuille flow. <i>Physics of Fluids</i> , 2003 , 15, 1711	4.4	132
160	The rate of collisions due to Brownian or gravitational motion of small drops. <i>Journal of Fluid Mechanics</i> , 1991 , 230, 479-504	3.7	131
159	Elastohydrodynamic collision and rebound of spheres: Experimental verification. <i>Physics of Fluids</i> , 1988 , 31, 1324		129
158	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	9.3	127
157	Membrane fouling during microfiltration of protein mixtures. <i>Journal of Membrane Science</i> , 1996 , 119, 269-284	9.6	122
156	Cross-flow microfiltration with high-frequency reverse filtration. <i>AIChE Journal</i> , 1995 , 41, 501-508	3.6	101
155	Spreading of the interface at the top of a slightly polydisperse sedimenting suspension. <i>Journal of Fluid Mechanics</i> , 1988 , 196, 107-134	3.7	99
154	The collision rate of small drops in linear flow fields. <i>Journal of Fluid Mechanics</i> , 1994 , 265, 161-188	3.7	97
153	Factors affecting membrane fouling reduction by surface modification and backpulsing. <i>Journal of Membrane Science</i> , 2001 , 189, 255-270	9.6	92

152	Cusping, capture, and breakup of interacting drops by a curvatureless boundary-integral algorithm. <i>Journal of Fluid Mechanics</i> , 1999 , 391, 249-292	3.7	90
151	Inclined sedimentation for selective retention of viable hybridomas in a continuous suspension bioreactor. <i>Biotechnology Progress</i> , 1990 , 6, 458-64	2.8	90
150	Microfiltration of protein mixtures and the effects of yeast on membrane fouling. <i>Journal of Membrane Science</i> , 1999 , 155, 113-122	9.6	89
149	Elastohydrodynamic rebound of spheres from coated surfaces. <i>Journal of Fluid Mechanics</i> , 2002 , 468, 107-119	3.7	84
148	The rate of coagulation of a dilute polydisperse system of sedimenting spheres. <i>Journal of Fluid Mechanics</i> , 1984 , 145, 179	3.7	82
147	Buoyancy-driven coalescence of slightly deformable drops. <i>Journal of Fluid Mechanics</i> , 1997 , 346, 117-148	3.7	81
146	Experimental verification of the shear-induced hydrodynamic diffusion model of crossflow microfiltration. <i>Journal of Membrane Science</i> , 1991 , 62, 249-273	9.6	78
145	Sedimentation of algae flocculated using naturally-available, magnesium-based flocculants. <i>Algal Research</i> , 2012 , 1, 32-39	5	75
144	An Efficient Algorithm for Hydrodynamical Interaction of Many Deformable Drops. <i>Journal of Computational Physics</i> , 2000 , 157, 539-587	4.1	74
143	The effect of slight deformation on droplet coalescence in linear flows. <i>Physics of Fluids</i> , 2001 , 13, 1178-1190	4.1	72
142	Modeling of concentration polarization and depolarization with high-frequency backpulsing. <i>Journal of Membrane Science</i> , 1996 , 121, 229-242	9.6	72
141	Hindered settling function with no empirical parameters for polydisperse suspensions. <i>AIChE Journal</i> , 1994 , 40, 570-575	3.6	70
140	Direct visual observation of yeast deposition and removal during microfiltration. <i>Journal of Membrane Science</i> , 2001 , 189, 217-230	9.6	64
139	Low-Reynolds-number motion of a deformable drop between two parallel plane walls. <i>International Journal of Multiphase Flow</i> , 2007 , 33, 182-206	3.6	63
138	Shear flow of highly concentrated emulsions of deformable drops by numerical simulations. <i>Journal of Fluid Mechanics</i> , 2002 , 455, 21-61	3.7	61
137	HYDRODYNAMIC MODEL AND EXPERIMENTS FOR CROSSFLOW MICROFILTRATION. <i>Chemical Engineering Communications</i> , 1987 , 49, 217-234	2.2	61
136	The viscosity of a dilute suspension of rough spheres. <i>Journal of Fluid Mechanics</i> , 2000 , 421, 339-367	3.7	59
135	Dynamics of induced CAT expression in E. coli. <i>Biotechnology and Bioengineering</i> , 1991 , 38, 749-60	4.9	58

134	Flux enhancement for membrane filtration of bacterial suspensions using high-frequency backpulsing. <i>Biotechnology and Bioengineering</i> , 1998 , 60, 77-87	4.9	57
133	Protein recovery from bacterial cell debris using crossflow microfiltration with backpulsing. <i>Journal of Membrane Science</i> , 1996 , 118, 259-268	9.6	56
132	Soft-lithography fabrication of microfluidic features using thiol-ene formulations. <i>Lab on A Chip</i> , 2011 , 11, 2772-8	7.2	54
131	Shear stress of a monolayer of rough spheres. <i>Journal of Fluid Mechanics</i> , 2002 , 452, 425-441	3.7	48
130	Crossflow microfiltration of yeast suspensions in tubular filters. <i>Biotechnology Progress</i> , 1993 , 9, 625-34	2.8	48
129	Theoretical and experimental flux maximization by optimization of backpulsing. <i>Journal of Membrane Science</i> , 2000 , 165, 225-236	9.6	47
128	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		47
127	Microfiltration of protein-cell mixtures with crossflushing or backflushing. <i>Journal of Membrane Science</i> , 2001 , 183, 1-14	9.6	45
126	Effects of added yeast on protein transmission and flux in cross-flow membrane microfiltration. <i>Biotechnology Progress</i> , 1999 , 15, 472-9	2.8	42
125	Cellulase recovery via membrane filtration. <i>Applied Biochemistry and Biotechnology</i> , 2001 , 91-93, 297-309	3.2	41
124	Yeast cake layers as secondary membranes in dead-end microfiltration of bovine serum albumin. <i>Journal of Membrane Science</i> , 1994 , 92, 247-256	9.6	41
123	Oblique collisions and rebound of spheres from a wetted surface. <i>Journal of Fluid Mechanics</i> , 2004 , 509, 63-81	3.7	40
122	Modeling and measurement of yeast flocculation. <i>Biotechnology Progress</i> , 1986 , 2, 91-7	2.8	40
121	A boundary-integral study of a drop squeezing through interparticle constrictions. <i>Journal of Fluid Mechanics</i> , 2006 , 564, 227	3.7	38
120	Buoyancy-driven viscous interaction of a rising drop with a smaller trailing drop. <i>Physics of Fluids</i> , 1999 , 11, 1016-1028	4.4	38
119	The nature of particle contacts in sedimentation. <i>Physics of Fluids</i> , 1996 , 8, 1389-1396	4.4	38
118	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	3.7	38
117	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, 871-94	3	37

116	Particle transport in Poiseuille flow in narrow channels. <i>International Journal of Multiphase Flow</i> , 2005 , 31, 529-547	3.6	37
115	In situ fabrication of macroporous polymer networks within microfluidic devices by living radical photopolymerization and leaching. <i>Lab on A Chip</i> , 2005 , 5, 151-7	7.2	36
114	Particle classification for dilute suspensions using an inclined settler. <i>Industrial & Engineering Chemistry Research</i> , 1989 , 28, 785-793	3.9	36
113	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	3.6	35
112	The sedimentation of polydisperse suspensions in vessels having inclined walls. <i>International Journal of Multiphase Flow</i> , 1982 , 8, 571-585	3.6	35
111	Large-scale simulations of concentrated emulsion flows. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2003 , 361, 813-45	3	34
110	Droplet growth by coalescence in binary fluid mixtures. <i>Physical Review Letters</i> , 2001 , 87, 098304	7.4	34
109	Cellulase retention and sugar removal by membrane ultrafiltration during lignocellulosic biomass hydrolysis. <i>Applied Biochemistry and Biotechnology</i> , 2004 , 113-116, 585-99	3.2	33
108	Near-contact electrophoretic particle motion. <i>Journal of Fluid Mechanics</i> , 1995 , 288, 103-122	3.7	33
107	A multipole-accelerated algorithm for close interaction of slightly deformable drops. <i>Journal of Computational Physics</i> , 2005 , 207, 695-735	4.1	31
106	Motion of Deformable Drops Through Porous Media. <i>Annual Review of Fluid Mechanics</i> , 2017 , 49, 71-90	2.2	30
105	Deposition of foulant particles during tangential flow filtration. <i>Journal of Membrane Science</i> , 2006 , 271, 101-113	9.6	30
104	Emulsion flow through a packed bed with multiple drop breakup. <i>Journal of Fluid Mechanics</i> , 2013 , 725, 611-663	3.7	29
103	Protein recovery from cell debris using rotary and tangential crossflow microfiltration. <i>Biotechnology and Bioengineering</i> , 1995 , 47, 155-64	4.9	29
102	Hydrodynamic diffusion of a sphere sedimenting through a dilute suspension of neutrally buoyant spheres. <i>Journal of Fluid Mechanics</i> , 1992 , 236, 513-533	3.7	29
101	Yeast foulant removal by backpulses in crossflow microfiltration. <i>Journal of Membrane Science</i> , 2002 , 208, 389-404	9.6	28
100	Large-scale oligoribonucleotide production. <i>Current Opinion in Biotechnology</i> , 1995 , 6, 213-7	11.4	28
99	Gravity-induced coalescence of drops at arbitrary Péclet numbers. <i>Journal of Fluid Mechanics</i> , 1994 , 280, 119-148	3.7	28

98	Application of cross-flow microfiltration with rapid backpulsing to wastewater treatment. <i>Journal of Hazardous Materials</i> , 1998 , 63, 179-197	12.8	27
97	Electroosmotic flow in channels with step changes in zeta potential and cross section. <i>Journal of Colloid and Interface Science</i> , 2004 , 270, 242-6	9.3	27
96	Direct observation of membrane cleaning via rapid backpulsing. <i>Desalination</i> , 2002 , 146, 135-140	10.3	27
95	Collision rates of spherical drops or particles in a shear flow at arbitrary Péclet numbers. <i>Physics of Fluids</i> , 1995 , 7, 2310-2327	4.4	26
94	Simultaneous sedimentation and coalescence of a dilute dispersion of small drops. <i>Journal of Fluid Mechanics</i> , 1995 , 295, 247	3.7	26
93	Yeast-Fouling Effects in Cross-Flow Microfiltration with Periodic Reverse Filtration. <i>Industrial & Engineering Chemistry Research</i> , 2003 , 42, 130-139	3.9	25
92	Flotation rates of fine, spherical particles and droplets. <i>Chemical Engineering Science</i> , 1994 , 49, 3923-3944	4.4	24
91	A water-activated pump for portable microfluidic applications. <i>Journal of Colloid and Interface Science</i> , 2007 , 305, 239-49	9.3	23
90	Algorithm for direct numerical simulation of emulsion flow through a granular material. <i>Journal of Computational Physics</i> , 2008 , 227, 7841-7888	4.1	23
89	Combined sedimentation and filtration process for cellulase recovery during hydrolysis of lignocellulosic biomass. <i>Applied Biochemistry and Biotechnology</i> , 2002 , 98-100, 1161-72	3.2	23
88	Classification of concentrated suspensions using inclined settlers. <i>International Journal of Multiphase Flow</i> , 1996 , 22, 563-574	3.6	23
87	Particle concentration using inclined sedimentation via sludge accumulation and removal for algae harvesting. <i>Chemical Engineering Science</i> , 2013 , 91, 79-85	4.4	22
86	Continuous recombinant bacterial fermentations utilizing selective flocculation and recycle. <i>Biotechnology Progress</i> , 1990 , 6, 7-12	2.8	22
85	Modeling and verification of fluid-responsive polymer pumps for microfluidic systems. <i>Chemical Engineering Science</i> , 2004 , 59, 5967-5974	4.4	20
84	Interaction of two touching spheres in a viscous fluid. <i>Chemical Engineering Science</i> , 2002 , 57, 1997-2006	4.4	20
83	Low-velocity collisions of particles with a dry or wet wall. <i>Microgravity Science and Technology</i> , 2005 , 17, 18-25	1.6	20
82	Elastohydrodynamic theory for wet oblique collisions. <i>Powder Technology</i> , 2006 , 168, 42-52	5.2	19
81	Application of solution equilibrium analysis to in vitro RNA transcription. <i>Biotechnology Progress</i> , 1997 , 13, 747-56	2.8	18

80	The flotation rates of fine spherical particles under Brownian and convective motion. <i>Chemical Engineering Science</i> , 1999 , 54, 149-157	4.4	18
79	Mass transfer to a surfactant-covered bubble or drop. <i>AIChE Journal</i> , 1999 , 45, 1355-1358	3.6	18
78	RNA transcription from immobilized DNA templates. <i>Biotechnology Progress</i> , 1995 , 11, 393-6	2.8	18
77	Microhydrodynamics of particulate. <i>Advances in Colloid and Interface Science</i> , 1993 , 43, 17-50	14.3	18
76	Empirical evaluation of inhibitory product, substrate, and enzyme effects during the enzymatic saccharification of lignocellulosic biomass. <i>Applied Biochemistry and Biotechnology</i> , 2010 , 161, 468-82	3.2	17
75	Collisions of spheres with wet and dry porous layers on a solid wall. <i>Chemical Engineering Science</i> , 2006 , 61, 417-427	4.4	17
74	Motion of a sphere down a rough plane in a viscous fluid. <i>International Journal of Multiphase Flow</i> , 2002 , 28, 1787-1800	3.6	17
73	Wave formation and growth during sedimentation in narrow tilted channels. <i>Physics of Fluids</i> , 1983 , 26, 2055		17
72	Buoyancy-induced squeezing of a deformable drop through an axisymmetric ring constriction. <i>Physics of Fluids</i> , 2010 , 22, 082101	4.4	16
71	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	3.6	16
70	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	3.7	16
69	Extensional and shear flows, and general rheology of concentrated emulsions of deformable drops. <i>Journal of Fluid Mechanics</i> , 2015 , 779, 197-244	3.7	15
68	Mechanisms for agglomeration and deagglomeration following oblique collisions of wet particles. <i>Physical Review E</i> , 2012 , 86, 021303	2.4	15
67	Ellipsoidal model for deformable drops and application to non-Newtonian emulsion flow. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2002 , 102, 281-298	2.7	15
66	Microflotation of fine particles in the presence of a bulk-insoluble surfactant. <i>International Journal of Multiphase Flow</i> , 2000 , 26, 891-920	3.6	15
65	Buoyancy-driven interactions of viscous drops with deforming interfaces. <i>Journal of Fluid Mechanics</i> , 2001 , 446, 253-269	3.7	15
64	Experimental study of two interacting drops in an immiscible fluid. <i>Journal of Fluid Mechanics</i> , 1993 , 249, 227	3.7	15
63	Sedimentation of axisymmetric particles in shear flows. <i>Physics of Fluids A, Fluid Dynamics</i> , 1991 , 3, 2051-2060		15

62	Agglomeration and de-agglomeration of rotating wet doublets. <i>Journal of Fluid Mechanics</i> , 2012 , 708, 128-148	3.7	14
61	Squeezing of a periodic emulsion through a cubic lattice of spheres. <i>Physics of Fluids</i> , 2008 , 20, 040803	4.4	14
60	Buoyancy-driven coalescence of spherical drops covered with incompressible surfactant at arbitrary Péclet number. <i>Journal of Colloid and Interface Science</i> , 2004 , 270, 205-20	9.3	14
59	MEMBRANE SURFACE MODIFICATION AND BACKPULSING FOR WASTEWATER TREATMENT. <i>Separation Science and Technology</i> , 2001 , 36, 1557-1573	2.5	14
58	Near-contact thermocapillary motion of two non-conducting drops. <i>Journal of Fluid Mechanics</i> , 1993 , 256, 107-131	3.7	14
57	Collective effects of temperature gradients and gravity on droplet coalescence. <i>Physics of Fluids A, Fluid Dynamics</i> , 1993 , 5, 1602-1613		14
56	The Effects of van der Waals Attractions on Cloud Droplet Growth by Coalescence. <i>Journals of the Atmospheric Sciences</i> , 1990 , 47, 1075-1080	2.1	14
55	Competitive yeast fermentation with selective flocculation and recycle. <i>Biotechnology and Bioengineering</i> , 1989 , 33, 767-76	4.9	13
54	General rheology of highly concentrated emulsions with insoluble surfactant. <i>Journal of Fluid Mechanics</i> , 2017 , 816, 661-704	3.7	11
53	Hydrodynamic separation of particles using pinched-flow fractionation. <i>AIChE Journal</i> , 2013 , 59, 3444-3457	3.5	11
52	Modeling and optimization of a batch process for in vitro RNA production. <i>Biotechnology and Bioengineering</i> , 1997 , 56, 210-20	4.9	11
51	Low-Reynolds-number motion of a heavy sphere between two parallel plane walls. <i>Chemical Engineering Science</i> , 2006 , 61, 1932-1945	4.4	11
50	General Ellipsoidal Model for Deformable Drops in Viscous Flows. <i>Industrial & Engineering Chemistry Research</i> , 2002 , 41, 6270-6278	3.9	11
49	Application of a fed-batch system to produce RNA by in vitro transcription. <i>Biotechnology Progress</i> , 1999 , 15, 174-84	2.8	11
48	EXPERIMENTAL DETERMINATION OF THE PERMEABILITY AND RELATIVE VISCOSITY FOR FINE LATEXES AND YEAST SUSPENSIONS. <i>Chemical Engineering Communications</i> , 1990 , 91, 11-28	2.2	11
47	Simulations of gravity-induced trapping of a deformable drop in a three-dimensional constriction. <i>Journal of Colloid and Interface Science</i> , 2012 , 383, 167-76	9.3	10
46	Motion of deformable drops through granular media and other confined geometries. <i>Journal of Colloid and Interface Science</i> , 2009 , 334, 113-23	9.3	10
45	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	5.1	10

44	Simplified model for droplet growth in shear flow. <i>AICHE Journal</i> , 2003 , 49, 546-548	3.6	10
43	Particle collection by permeable drops. <i>Physical Review Fluids</i> , 2018 , 3,	2.8	9
42	Interaction of sedimenting spheres with multiple surface roughness scales. <i>Journal of Fluid Mechanics</i> , 2003 , 492, 101-129	3.7	7
41	Infrasonic pulsing for foulant removal in crossflow microfiltration. <i>Journal of Membrane Science</i> , 2000 , 180, 157-169	9.6	7
40	Electrokinetic isolation of vesicles and ribosomes derived from <i>Serratia marcescens</i> . <i>Biotechnology Progress</i> , 1992 , 8, 429-35	2.8	7
39	An adjustable expression system for controlling growth rate, plasmid maintenance, and culture dynamics. <i>Biotechnology and Bioengineering</i> , 1992 , 40, 1027-38	4.9	7
38	Microfiltration in Pharmaceuticals and Biotechnology 2019 , 29-67		6
37	Gravity-induced collisions of spherical drops covered with compressible surfactant. <i>Journal of Fluid Mechanics</i> , 2011 , 667, 369-402	3.7	6
36	Computational modeling and comparison of three co-laminar microfluidic mixing techniques. <i>Microfluidics and Nanofluidics</i> , 2008 , 5, 43-53	2.8	6
35	Water transport by osmosis through a high-internal-phase, water-in-oil emulsion. <i>Chemical Engineering Science</i> , 2021 , 232, 116348	4.4	6
34	Drops with insoluble surfactant squeezing through interparticle constrictions. <i>Journal of Fluid Mechanics</i> , 2019 , 878, 324-355	3.7	5
33	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	4.1	5
32	Enhanced sediment flow in inclined settlers via surface modification or applied vibration for harvesting microalgae. <i>Algal Research</i> , 2013 , 2, 369-377	5	5
31	Fractionation of Organic Fuel Precursors from Electrolytes with Membranes. <i>Industrial & Engineering Chemistry Research</i> , 2013 , 52, 10530-10539	3.9	5
30	A moving-frame boundary-integral method for particle transport in microchannels of complex shape. <i>Physics of Fluids</i> , 2012 , 24, 043302	4.4	5
29	Cellulase Retention and Sugar Removal by Membrane Ultrafiltration During Lignocellulosic Biomass Hydrolysis 2004 , 585-599		5
28	Optimization of repeated-batch transcription for RNA production. <i>Biotechnology and Bioengineering</i> , 2000 , 69, 679-87	4.9	5
27	MICROFLOTATION OF FINE OIL DROPLETS BY SMALL AIR BUBBLES: EXPERIMENT AND THEORY. <i>Separation Science and Technology</i> , 2001 , 36, 1-15	2.5	5

26	Cell Separations Using Differential Sedimentation in Inclined Settlers. <i>ACS Symposium Series</i> , 1991 , 113-127		5
25	Boundary-integral study of a freely suspended drop in a T-shaped microchannel. <i>International Journal of Multiphase Flow</i> , 2020 , 130, 103379	3.6	4
24	Growth of multiparticle aggregates in sedimenting suspensions. <i>Journal of Fluid Mechanics</i> , 2014 , 742, 577-617	3.7	4
23	Creeping motion and pending breakup of drops and bubbles near an inclined wall. <i>Physics of Fluids</i> , 2009 , 21, 093303	4.4	4
22	Separation and classification of axisymmetric particles in an inclined settler. <i>International Journal of Multiphase Flow</i> , 1993 , 19, 803-816	3.6	4
21	Modeling of repeated-batch transcription for production of RNA. <i>Journal of Biotechnology</i> , 1999 , 71, 25-37	3.7	3
20	Cell separations using targeted monoclonal antibodies against overproduced surface proteins. <i>Applied Biochemistry and Biotechnology</i> , 1994 , 45-46, 233-44	3.2	3
19	Modelling of particle capture by expanding droplets. <i>Journal of Fluid Mechanics</i> , 2021 , 912,	3.7	3
18	Simultaneous and sequential collisions of three wetted spheres. <i>Journal of Fluid Mechanics</i> , 2019 , 881, 983-1009	3.7	2
17	Drop trapping in axisymmetric constrictions with arbitrary contact angle. <i>Physics of Fluids</i> , 2012 , 24, 062102	4.4	2
16	Drop squeezing between arbitrary smooth obstacles. <i>Journal of Fluid Mechanics</i> , 2021 , 908,	3.7	2
15	Secondary membranes for flux optimization in membrane filtration of biologic suspensions. <i>Applied Biochemistry and Biotechnology</i> , 2004 , 113-116, 417-32	3.2	1
14	Optimal chemostat cascades for periplasmic protein production. <i>Biotechnology Progress</i> , 1990 , 6, 430-6	2.8	1
13	Particle interactions with permeable drops in shear flow. <i>Powder Technology</i> , 2021 , 383, 410-417	5.2	1
12	Simulation of drop motion and breakup in narrow pores. <i>Chemical Engineering Science</i> , 2021 , 229, 116054	4.4	1
11	Flux enhancement for membrane filtration of bacterial suspensions using high-frequency backpulsing 1998 , 60, 77		1
10	Diffusion-limited osmotic swelling of droplets. <i>Physics of Fluids</i> , 2021 , 33, 117109	4.4	0
9	Gravitational collision efficiencies of small viscous drops at finite Stokes numbers and low Reynolds numbers. <i>International Journal of Multiphase Flow</i> , 2021 , 146, 103876	3.6	0

- 8 Internal circulation and mixing within tight-squeezing deformable droplets. *Physical Review E*, **2021**, 103, 043106 2.4 ○
- 7 Algorithm for flow of highly-concentrated emulsions through a narrow constriction. *Journal of Computational Physics*, **2021**, 438, 110363 4.1 ○
- 6 Effects of emulsifier concentration in a high-internal-phase, W/O emulsion binder on particle agglomeration. *Chemical Engineering Science*, **2022**, 248, 117098 4.4 ○
- 5 Improving the faculty-student experience in chemical engineering. *AIChE Journal*, **2020**, 66, e16960 3.6
- 4 Direct Visual Observation of Microfiltration Membrane Fouling and Cleaning 9-32
- 3 Combined Sedimentation and Filtration Process for Cellulase Recovery During Hydrolysis of Lignocellulosic Biomass **2002**, 1161-1172
- 2 BUOYANCY-DRIVEN INTERACTIONS OF VISCOUS DROPS WITH DEFORMING INTERFACES **2002**, 252-252
- 1 Secondary Membranes for Flux Optimization in Membrane Filtration of Biologic Suspensions **2004**, 417-432