Arun Ramachandran

List of Publications by Year
in descending order

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42	983	430874	434195
papers	citations	18 h-index	31 g-index

42	42	42	1221
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Emulsion characterization via microfluidic devices: A review on interfacial tension and stability to coalescence. Advances in Colloid and Interface Science, 2022, 299, 102541.	14.7	71
2	Impact of tamponade agent on retinal displacement following pars plana vitrectomy for rhegmatogenous retinal detachment repair: a computer simulation model. Acta Ophthalmologica, 2022, , .	1.1	2
3	Fibrous hydrogels under biaxial confinement. Nature Communications, 2022, 13, .	12.8	6
4	A macrotransport equation for the Hele-Shaw flow of a concentrated suspension. Journal of Fluid Mechanics, 2021, 924, .	3.4	1
5	Substrate colonization by an emulsion drop prior to spreading. Nature Communications, 2021, 12, 5734.	12.8	1
6	Understanding the mechanism of retinal displacement following rhegmatogenous retinal detachment repair: A computer simulation model. Acta Ophthalmologica, 2021, , .	1.1	6
7	h-FIBER: Microfluidic Topographical Hollow Fiber for Studies of Glomerular Filtration Barrier. ACS Central Science, 2020, 6, 903-912.	11.3	59
8	3D Printing of Vascular Tubes Using Bioelastomer Prepolymers by Freeform Reversible Embedding. ACS Biomaterials Science and Engineering, 2020, 6, 1333-1343.	5.2	40
9	Interfacial Tension of the Water-Diluted Bitumen Interface at High Bitumen Concentrations Measured Using a Microfluidic Technique. Langmuir, 2019, 35, 15710-15722.	3.5	15
10	Mass transfer dynamics in the dissolution of Taylor bubbles. Soft Matter, 2019, 15, 2746-2756.	2.7	14
11	Novel Activated Microbubbles-based Strategy to Coat Nanoparticles on Root Canal Dentin: Fluid Dynamical Characterization. Journal of Endodontics, 2019, 45, 797-802.	3.1	8
12	The roles of contact time and contact pressure on the coalescence of water droplets suspended in concentrated bitumen solutions. Fuel, 2018, 223, 486-495.	6.4	12
13	The suppression of droplet-droplet coalescence in a sheared yield stress fluid. Journal of Colloid and Interface Science, 2017, 492, 199-206.	9.4	15
14	The hydrodynamics of segmented two-phase flow in a circular tube with rapidly dissolving drops. Soft Matter, 2017, 13, 3147-3160.	2.7	0
15	An exploration of the reflow technique for the fabrication of an in vitro microvascular system to study occlusive clots. Biomedical Microdevices, 2017, 19, 82.	2.8	5
16	Two touching spherical drops in a uniaxial compressional flow: The effect of interfacial slip. Physics of Fluids, 2016, 28, 053303.	4.0	5
17	Dispersion of a passive tracer in the pressure-driven flow of a non-colloidal suspension. Soft Matter, 2016, 12, 7920-7936.	2.7	3
18	Formation of extremely fine water droplets in sheared, concentrated bitumen solutions via surfactant-mediated tip streaming. Fuel, 2016, 180, 538-550.	6.4	8

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19	Universal behavior of hydrogels confined to narrow capillaries. Scientific Reports, 2015, 5, 17017.	3.3	36
20	Adsorption Mechanism of Myelin Basic Protein on Model Substrates and Its Bridging Interaction between the Two Surfaces. Langmuir, 2015, 31, 3159-3166.	3.5	20
21	Mathematical model accurately predicts protein release from an affinity-based delivery system. Journal of Controlled Release, 2015, 197, 69-77.	9.9	60
22	Origins of Microstructural Transformations in Charged Vesicle Suspensions: The Crowding Hypothesis. Langmuir, 2014, 30, 10176-10187.	3.5	15
23	Microfluidic Generation of Composite Biopolymer Microgels with Tunable Compositions and Mechanical Properties. Biomacromolecules, 2014, 15, 2419-2425.	5.4	36
24	Direct Measurements of Effect of Counterion Concentration on Mechanical Properties of Cationic Vesicles. Langmuir, 2013, 29, 14057-14065.	3.5	10
25	The motion of a microgel in an axisymmetric constriction with a tapered entrance. Soft Matter, 2013, 9, 10391.	2.7	19
26	Secondary convection due to second normal stress differences: A new mechanism for the mass transport of solutes in pressure-driven flows of concentrated, non-colloidal suspensions. Soft Matter, 2013, 9, 6824.	2.7	6
27	Demonstration of Secondary Currents in the Pressure-Driven Flow of a Concentrated Suspension Through a Square Conduit. Physical Review Letters, 2013, 110, 018306.	7.8	13
28	A macrotransport equation for the particle distribution in the flow of a concentrated, non-colloidal suspension through a circular tube. Journal of Fluid Mechanics, 2013, 734, 219-252.	3.4	14
29	Properties and solution techniques for a mixed type boundary integral equation arising in creeping flow problems. Computers and Fluids, 2012, 64, 141-156.	2.5	3
30	Lipid-Protein Interactions Alter Line Tensions and Domain Size Distributions in Lung Surfactant Monolayers. Biophysical Journal, 2012, 102, 56-65.	0.5	40
31	The effect of interfacial slip on the rheology of a dilute emulsion of drops for small capillary numbers. Journal of Rheology, 2012, 56, 1555-1587.	2.6	25
32	The effect of interfacial slip on the dynamics of a drop in flow: Part I. Stretching, relaxation, and breakup. Journal of Rheology, 2012, 56, 45-97.	2.6	24
33	Adhesive Interactions between Vesicles in the Strong Adhesion Limit. Langmuir, 2011, 27, 59-73.	3.5	36
34	Relating domain size distribution to line tension and molecular dipole density in model cytoplasmic myelin lipid monolayers. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 9425-9430.	7.1	62
35	A constitutive equation for droplet distribution in unidirectional flows of dilute emulsions for low capillary numbers. Physics of Fluids, 2010, 22, .	4.0	12
36	A scaling theory for the hydrodynamic interaction between a pair of vesicles or capsules. Physics of Fluids, 2010, 22, .	4.0	18

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37	Dilution Technique To Determine the Hydrodynamic Volume Fraction of a Vesicle Suspension. Langmuir, 2010, 26, 15169-15176.	3.5	16
38	The dynamics and rheology of a dilute suspension of hydrodynamically Janus spheres in a linear flow. Journal of Fluid Mechanics, 2009, 633, 233-269.	3.4	25
39	The influence of secondary flows induced by normal stress differences on the shear-induced migration of particles in concentrated suspensions. Journal of Fluid Mechanics, 2008, 603, 207-243.	3.4	44
40	Viscous resuspension in a tube: The impact of secondary flows resulting from second normal stress differences. Physics of Fluids, 2007, 19, 053301.	4.0	17
41	The effect of gravity on the meniscus accumulation phenomenon in a tube. Journal of Rheology, 2007, 51, 1073-1098.	2.6	21
42	Effect of channel geometry on solute dispersion in pressure-driven microfluidic systems. Microfluidics and Nanofluidics, 2006, 2, 275-290.	2.2	140