Mahesh S Tirumkudulu

List of Publications by Year
in descending order

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43 papers	1,033 citations	623734 14 h-index	434195 31 g-index
46 all docs	46 docs citations	46 times ranked	1020 citing authors

#	Article	IF	Citations
1	Cracking in Drying Colloidal Films. Physical Review Letters, 2007, 98, 218302.	7.8	252
2	Cracking in Drying Latex Films. Langmuir, 2005, 21, 4938-4948.	3.5	237
3	Role of Capillary Stresses in Film Formation. Langmuir, 2004, 20, 2947-2961.	3.5	105
4	Cracking in Drying Colloidal Films of Flocculated Dispersions. Langmuir, 2009, 25, 4284-4287.	3.5	44
5	Cracking in drying films of polymer solutions. Soft Matter, 2020, 16, 3476-3484.	2.7	37
6	Instability of a moving liquid sheet in the presence of acoustic forcing. Physics of Fluids, 2010, 22, .	4.0	25
7	Cracking in Softâ"Hard Latex Blends: Theory and Experiments. Langmuir, 2009, 25, 751-760.	3.5	21
8	Delamination of drying nanoparticle suspensions. Soft Matter, 2011, 7, 8816.	2.7	19
9	Yielding in a strongly aggregated colloidal gel. Part I: 2D simulations. Journal of Rheology, 2016, 60, 559-574.	2.6	16
10	Universality in consolidation of colloidal gels. Soft Matter, 2016, 12, 9402-9406.	2.7	16
11	Buckling of a drying colloidal drop. Soft Matter, 2018, 14, 7455-7461.	2.7	16
12	Dynamics of cracking in drying colloidal sheets. Soft Matter, 2016, 12, 3149-3155.	2.7	15
13	A novel methodology for measuring the tensile strength of expansive clays. Geomechanics and Geoengineering, 2012, 7, 15-25.	1.8	14
14	Synthesis of Sub-100-nm Liposomes via Hydration in a Packed Bed of Colloidal Particles. Industrial & Engineering Chemistry Research, 2014, 53, 198-205.	3.7	14
15	Stability of a moving radial liquid sheet:Âexperiments. Journal of Fluid Mechanics, 2015, 770, 398-423.	3.4	14
16	Variation in swimming speed of Escherichia coli in response to attractant. Archives of Microbiology, 2015, 197, 211-222.	2.2	14
17	Solventborne Polymer Coatings: Drying, Film Formation, Stress Evolution, and Failure. Langmuir, 2022, 38, 2409-2414.	3.5	14
18	Chemotaxis ofEscherichia colitoL-serine. Physical Biology, 2010, 7, 026007.	1.8	13

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19	Stability of a moving radial liquid sheet: Time-dependent equations. Physics of Fluids, 2013, 25, .	4.0	13
20	Trajectory of a model bacterium. Journal of Fluid Mechanics, 2018, 835, 252-270.	3.4	12
21	Asymptotic analysis of stresses near a crack tip in a two-dimensional colloidal packing saturated with liquid. Physical Review E, 2011, 83, 051401.	2.1	11
22	Mathematical modeling and experimental validation of chemotaxis under controlled gradients of methyl-aspartate in Escherichia coli. Molecular BioSystems, 2010, 6, 1082.	2.9	9
23	Enhancement of Swimming Speed Leads to a More-Efficient Chemotactic Response to Repellent. Applied and Environmental Microbiology, 2016, 82, 1205-1214.	3.1	9
24	Growth of sinuous waves on thin liquid sheets: Comparison of predictions with experiments. Physics of Fluids, 2016, 28, 052101.	4.0	8
25	Modeling the drying of polymer coatings. Soft Matter, 2021, 18, 214-227.	2.7	8
26	Yielding in a strongly aggregated colloidal gel. Part II: Theory. Journal of Rheology, 2016, 60, 575-586.	2.6	7
27	Escherichia coli modulates its motor speed on sensing an attractant. Archives of Microbiology, 2016, 198, 827-833.	2.2	7
28	Dynamics of Radially Expanding Liquid Sheets. Physical Review Letters, 2018, 120, 164501.	7.8	7
29	Micro-mechanical theory of shear yield stress for strongly flocculated colloidal gel. Soft Matter, 2020, 16, 1801-1809.	2.7	7
30	Ultimate strength of a colloidal packing. Soft Matter, 2012, 8, 303-306.	2.7	6
31	Variation of swimming speed enhances the chemotactic migration of Escherichia coli. Systems and Synthetic Biology, 2015, 9, 85-95.	1.0	6
32	Ligand sensing enhances bacterial flagellar motor output via stator recruitment. ELife, 2021, 10, .	6.0	6
33	Mechanics of Saturated Colloidal Packings: A Comparison of Two Models. Transport in Porous Media, 2020, 135, 457-486.	2.6	5
34	An experimental study of impulsively started turbulent axisymmetric jets. European Physical Journal B, 2008, 61, 293-297.	1.5	4
35	Open water bells. Physics of Fluids, 2016, 28, .	4.0	4
36	Free-standing monolayer films of ordered colloidal particles. Soft Matter, 2017, 13, 4520-4525.	2.7	4

#	Article	IF	Citations
37	Capillary-Induced Motion of Particles Bridging Interfaces of a Free-Standing Thin Liquid Film. Physical Review Letters, 2019, 122, 098001.	7.8	4
38	Osmotic tablet coatings: Drying stress, mechanical properties and microstructure. International Journal of Pharmaceutics, 2022, 617, 121611.	5.2	3
39	A low-cost flow cell for flow cytometry. Biosensors and Bioelectronics, 2022, 211, 114334.	10.1	3
40	Drying and Consolidation in Drying Colloidal Dispersions. Procedia IUTAM, 2015, 15, 57-63.	1.2	2
41	Moving cracks in drying colloidal films. Soft Matter, 2022, 18, 2252-2275.	2.7	2
42	Study on the Effect of Glucose on Trg Receptor ofEscherichia coliUsing Soft Agar Experiment. Indian Chemical Engineer, 2014, 56, 229-234.	1.5	0
43	Influence of the Gas Boundary Layer on the Stability of a Moving Planar Liquid Sheet. Industrial & Engineering Chemistry Research, 2019, 58, 7633-7639.	3.7	0