Manoj K Chaudhury

List of Publications by Year
in descending order

86	10,299	66250	58552
papers	citations	44 h-index	86 g-index

87	87	87	10117
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Thermodynamic and Kinetic Pathways to Agitated and Spontaneous Emulsification. Langmuir, 2020, 36, 10218-10237.	1.6	4
2	Extraction of Organic-Free Water from Detergent Stabilized Emulsion. Industrial & Engineering Chemistry Research, 2019, 58, 21089-21104.	1.8	5
3	Elastowetting of Soft Hydrogel Spheres. Langmuir, 2018, 34, 3894-3900.	1.6	14
4	Topological liquid diode. Science Advances, 2017, 3, eaao3530.	4.7	249
5	Elastobuoyant Heavy Spheres: A Unique Way to Study Nonlinear Elasticity. Physical Review X, 2016, 6, .	2.8	3
6	Extraction of Oil from an Aqueous Emulsion by Coupling Thermal Swing with a Capillary Pump. Langmuir, 2016, 32, 10213-10225.	1.6	1
7	New Drop Fluidics Enabled by Magnetic-Field-Mediated Elastocapillary Transduction. Langmuir, 2016, 32, 6860-6870.	1.6	27
8	Directional transport of high-temperature Janus droplets mediated by structural topography. Nature Physics, 2016, 12, 606-612.	6.5	263
9	Elastic Cheerios effect: Self-assembly of cylinders on a soft solid. Europhysics Letters, 2015, 112, 54001.	0.7	11
10	Wetting and phase separation in soft adhesion. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 14490-14494.	3.3	73
11	Generation of Motion of Drops with Interfacial Contact. Langmuir, 2015, 31, 9266-9281.	1.6	57
12	Attraction of Mesoscale Objects on the Surface of a Thin Elastic Film Supported on a Liquid. Langmuir, 2015, 31, 1911-1920.	1.6	8
13	Adhesion-induced instabilities and pattern formation in thin films of elastomers and gels. European Physical Journal E, 2015, 38, 82.	0.7	38
14	Further Reflections on the Geometric Mean Combining Rule for Interfacial Tension. Langmuir, 2015, 31, 11296-11304.	1.6	7
15	Soft Lithography Using Nectar Droplets. Langmuir, 2015, 31, 13155-13164.	1.6	11
16	Vibrations of sessile drops of soft hydrogels. Extreme Mechanics Letters, 2014, 1, 47-53.	2.0	5
17	Coalescence of drops near a hydrophilic boundary leads to long range directed motion. Extreme Mechanics Letters, 2014, 1, 104-113.	2.0	22
18	Elastocapillary Interaction of Particles on the Surfaces of Ultrasoft Gels: A Novel Route To Study Self-Assembly and Soft Lubrication. Langmuir, 2014, 30, 4684-4693.	1.6	18

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19	Surface Folding-Induced Attraction and Motion of Particles in a Soft Elastic Gel: Cooperative Effects of Surface Tension, Elasticity, and Gravity. Langmuir, 2013, 29, 15543-15550.	1.6	17
20	Activated drops: Self-excited oscillation, critical speeding and noisy transport. European Physical Journal E, 2013, 36, 15.	0.7	21
21	Direct Measurement of the Surface Tension of a Soft Elastic Hydrogel: Exploration of Elastocapillary Instability in Adhesion. Langmuir, 2013, 29, 6926-6935.	1.6	80
22	How a blister heals. Europhysics Letters, 2013, 104, 46002.	0.7	4
23	Electrokinetics of Polar Liquids in Contact with Nonpolar Surfaces. Langmuir, 2013, 29, 7793-7801.	1.6	7
24	Drop Motion Induced by Repeated Stretching and Relaxation on a Gradient Surface with Hysteresis. Langmuir, 2012, 28, 13912-13918.	1.6	20
25	Motion of Liquid Drops on Surfaces Induced by Asymmetric Vibration: Role of Contact Angle Hysteresis. Langmuir, 2011, 27, 10327-10333.	1.6	71
26	Long range interactions in nanoscale science. Reviews of Modern Physics, 2010, 82, 1887-1944.	16.4	359
27	Diffusive motion with nonlinear friction: apparently Brownian. Journal of Chemical Physics, 2010, 133, 024702.	1.2	31
28	Stochastic Relaxation of the Contact Line of a Water Drop on a Solid Substrate Subjected to White Noise Vibration: Roles of Hysteresis. Langmuir, 2010, 26, 8131-8140.	1.6	44
29	Determination of the Modulus of Thin Solâ^'Gel films Using Buckling Instability. Macromolecules, 2010, 43, 6800-6810.	2.2	10
30	Brownian Motion of a Drop with Hysteresis Dissipation. Langmuir, 2008, 24, 6128-6132.	1.6	16
31	Motion of Drops on a Surface Induced by Thermal Gradient and Vibration. Langmuir, 2008, 24, 10833-10837.	1.6	96
32	Using Electrocapillarity to Measure the Zeta Potential of a Planar Hydrophobic Surface in Contact with Water and Nonionic Surfactant Solutions. Langmuir, 2008, 24, 14276-14281.	1.6	15
33	Effect of Processing Conditions on Adhesion Performance of a Solâ€“Gel Reinforced Epoxy/Aluminum Interface. Journal of Adhesion Science and Technology, 2008, 22, 1159-1180.	1.4	6
34	FRICTION AT SOFT POLYMER SURFACE. Series in Sof Condensed Matter, 2008, , 195-219.	0.1	1
35	Critical Confinement and Elastic Instability in Thin Solid Films. Journal of Adhesion, 2007, 83, 679-704.	1.8	24
36	Biologically inspired crack trapping for enhanced adhesion. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 10786-10791.	3.3	234

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37	Studying Friction and Shear Fracture in Thin Confined Films Using a Rotational Shear Apparatus. Langmuir, 2007, 23, 8061-8066.	1.6	8
38	Settlement behavior of swimming algal spores on gradient surfaces. Biointerphases, 2006, 1, 18-21.	0.6	17
39	Effect of Surface Morphology on Crack Growth at a Sol-Gel Reinforced Epoxy/Aluminum Interface. Journal of Adhesion, 2006, 82, 487-516.	1.8	45
40	Modeling hydrophobic recovery of electrically discharged polydimethylsiloxane elastomers. Journal of Colloid and Interface Science, 2006, 293, 364-375.	5.0	50
41	Fracture behavior of an epoxy/aluminum interface reinforced by solâ€“gel coatings. Journal of Adhesion Science and Technology, 2006, 20, 277-305.	1.4	36
42	Thermal Fluctuations Limit the Adhesive Strength of Compliant Solids. Journal of Adhesion, 2006, 82, 671-696.	1.8	28
43	Soft and Hard Adhesion. Journal of Adhesion, 2005, 81, 1119-1145.	1.8	94
44	Vibration-Actuated Drop Motion on Surfaces for Batch Microfluidic Processes. Langmuir, 2005, 21, 4240-4248.	1.6	249
45	Super spreading of oil by condensed water drops. Soft Matter, 2005, 1, 431.	1.2	16
46	The influence of elastic modulus and thickness on the release of the soft-fouling green algaUlva linza(syn.Enteromorpha linza) from poly(dimethylsiloxane) (PDMS) model networks. Biofouling, 2005, 21, 41-48.	0.8	192
47	Roles of discontinuities in bio-inspired adhesive pads. Journal of the Royal Society Interface, 2005, 2, 55-61.	1.5	179
48	Measuring the Work of Adhesion between a Soft Confined Film and a Flexible Plate. Langmuir, 2005, 21, 1277-1281.	1.6	71
49	Failure of Elastomeric Polymers Due to Rate Dependent Bond Rupture. Langmuir, 2004, 20, 6052-6064.	1.6	31
50	Ratcheting Motion of Liquid Drops on Gradient Surfacesâ€. Langmuir, 2004, 20, 4085-4092.	1.6	199
51	Contact Angle Hysteresis, Adhesion, and Marine Biofouling. Langmuir, 2004, 20, 2830-2836.	1.6	196
52	Peeling from a biomimetically patterned thin elastic film. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2004, 460, 2725-2735.	1.0	178
53	Spread the word about nanofluids. Nature, 2003, 423, 131-132.	13.7	82
54	Adhesion-Induced Instability Patterns in Thin Confined Elastic Film. Langmuir, 2003, 19, 2621-2631.	1.6	143

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55	The Effects of Molecular Weight and Temperature on the Kinetic Friction of Silicone Rubbers. Langmuir, 2003, 19, 6778-6787.	1.6	129
56	Rectified Motion of Liquid Drops on Gradient Surfaces Induced by Vibration. Langmuir, 2002, 18, 3404-3407.	1.6	271
57	Synthesis and Surface Properties of Environmentally Responsive Segmented Polyurethanes. Journal of Colloid and Interface Science, 2002, 249, 235-245.	5.0	135
58	Fast Drop Movements Resulting from the Phase Change on a Gradient Surface. Science, 2001, 291, 633-636.	6.0	863
59	Investigation of Capillary Forces Using Atomic Force Microscopy. Langmuir, 2001, 17, 7823-7829.	1.6	62
60	The Mechanisms of Hydrophobic Recovery of Polydimethylsiloxane Elastomers Exposed to Partial Electrical Discharges. Journal of Colloid and Interface Science, 2001, 244, 200-207.	5.0	145
61	Synthesis of surface-active quaternary amino polyfluorosiloxanes. Journal of Applied Polymer Science, 2000, 77, 1700-1708.	1.3	2
62	Hydrophobic Recovery of Polydimethylsiloxane Elastomer Exposed to Partial Electrical Discharge. Journal of Colloid and Interface Science, 2000, 226, 231-236.	5.0	190
63	Meniscus Instability in a Thin Elastic Film. Physical Review Letters, 2000, 85, 4329-4332.	2.9	185
64	Estimation of Adhesion Hysteresis Using Rolling Contact Mechanics. Langmuir, 2000, 16, 622-625.	1.6	26
65	Interfacial Rate Processes in Adhesion and Friction. Journal of Physical Chemistry B, 2000, 104, 4018-4030.	1.2	162
66	The Orientation of Semifluorinated Alkanes Attached to Polymers at the Surface of Polymer Films. Macromolecules, 2000, 33, 1882-1887.	2.2	115
67	Surface Modification of Silicone Elastomer Using Perfluorinated Ether. Langmuir, 2000, 16, 1256-1260.	1.6	98
68	Surface properties and hemocompatibility of alkyl-siloxane monolayers supported on silicone rubber: effect of alkyl chain length and ionic functionality. Biomaterials, 1999, 20, 1533-1543.	5.7	84
69	Order/disorder gradients of n-alkanethiols on gold. Colloids and Surfaces B: Biointerfaces, 1999, 15, 57-70.	2.5	40
70	Rate-Dependent Fracture at Adhesive Interface. Journal of Physical Chemistry B, 1999, 103, 6562-6566.	1.2	103
71	Friction in Adhesion. Langmuir, 1998, 14, 4865-4872.	1.6	69
72	Estimation of Adhesion Hysteresis at Polymer/Oxide Interfaces Using Rolling Contact Mechanics. Langmuir, 1998, 14, 3090-3100.	1.6	81

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73	Effect of Interfacial Slippage on Viscoelastic Adhesion. Langmuir, 1997, 13, 1805-1809.	1.6	118
74	Adhesion and friction of self-assembled organic monolayers. Current Opinion in Colloid and Interface Science, 1997, 2, 65-69.	3.4	30
75	Interfacial interaction between low-energy surfaces. Materials Science and Engineering Reports, 1996, 16, 97-159.	14.8	201
76	Adhesive contact of cylindrical lens and a flat sheet. Journal of Applied Physics, 1996, 80, 30-37.	1.1	195
77	Surface and blood-contacting properties of alkylsiloxane monolayers supported on silicone rubber. Journal of Biomedical Materials Research Part B, 1995, 29, 535-548.	3.0	35
78	Self-assembled monolayers on polymer surfaces. Biosensors and Bioelectronics, 1995, 10, 785-788.	5.3	44
79	Study of the Self-Adhesion Hysteresis of a Siloxane Elastomer Using the JKR Method. Langmuir, 1994, 10, 2466-2470.	1.6	133
80	Adhesion hysteresis and friction. Langmuir, 1993, 9, 29-31.	1.6	87
81	Monolayers on disordered substrates: self-assembly of alkyltrichlorosilanes on surface-modified polyethylene and poly(dimethylsiloxane). Macromolecules, 1993, 26, 5870-5875.	2.2	154
82	Surface free energies of alkylsiloxane monolayers supported on elastomeric polydimethylsiloxanes. Journal of Adhesion Science and Technology, 1993, 7, 669-675.	1.4	68
83	Direct measurement of interfacial interactions between semispherical lenses and flat sheets of poly(dimethylsiloxane) and their chemical derivatives. Langmuir, 1991, 7, 1013-1025.	1.6	607
84	Interfacial Lifshitz-van der Waals and polar interactions in macroscopic systems. Chemical Reviews, 1988, 88, 927-941.	23.0	2,161
85	The hamaker constant and the dispersion force component of the surface tension of liquid mercury. Journal of Colloid and Interface Science, 1987, 119, 174-180.	5.0	9
86	A quantitative theory of negative adsorption of nonelectrolytes caused by repulsive van der Waals forces. Langmuir, 1985, 1, 673-678.	1.6	11