

Manoj K Chaudhury

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2318716/publications.pdf>

Version: 2024-02-01

86
papers

10,299
citations

66250

44
h-index

58552

86
g-index

87
all docs

87
docs citations

87
times ranked

10117
citing authors

#	ARTICLE	IF	CITATIONS
1	Interfacial Lifshitz-van der Waals and polar interactions in macroscopic systems. <i>Chemical Reviews</i> , 1988, 88, 927-941.	23.0	2,161
2	Fast Drop Movements Resulting from the Phase Change on a Gradient Surface. <i>Science</i> , 2001, 291, 633-636.	6.0	863
3	Direct measurement of interfacial interactions between semispherical lenses and flat sheets of poly(dimethylsiloxane) and their chemical derivatives. <i>Langmuir</i> , 1991, 7, 1013-1025.	1.6	607
4	Long range interactions in nanoscale science. <i>Reviews of Modern Physics</i> , 2010, 82, 1887-1944.	16.4	359
5	Rectified Motion of Liquid Drops on Gradient Surfaces Induced by Vibration. <i>Langmuir</i> , 2002, 18, 3404-3407.	1.6	271
6	Directional transport of high-temperature Janus droplets mediated by structural topography. <i>Nature Physics</i> , 2016, 12, 606-612.	6.5	263
7	Vibration-Actuated Drop Motion on Surfaces for Batch Microfluidic Processes. <i>Langmuir</i> , 2005, 21, 4240-4248.	1.6	249
8	Topological liquid diode. <i>Science Advances</i> , 2017, 3, eaao3530.	4.7	249
9	Biologically inspired crack trapping for enhanced adhesion. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 10786-10791.	3.3	234
10	Interfacial interaction between low-energy surfaces. <i>Materials Science and Engineering Reports</i> , 1996, 16, 97-159.	14.8	201
11	Ratcheting Motion of Liquid Drops on Gradient Surfaces. <i>Langmuir</i> , 2004, 20, 4085-4092.	1.6	199
12	Contact Angle Hysteresis, Adhesion, and Marine Biofouling. <i>Langmuir</i> , 2004, 20, 2830-2836.	1.6	196
13	Adhesive contact of cylindrical lens and a flat sheet. <i>Journal of Applied Physics</i> , 1996, 80, 30-37.	1.1	195
14	The influence of elastic modulus and thickness on the release of the soft-fouling green alga <i>Ulva linza</i> (syn. <i>Enteromorpha linza</i>) from poly(dimethylsiloxane) (PDMS) model networks. <i>Biofouling</i> , 2005, 21, 41-48.	0.8	192
15	Hydrophobic Recovery of Polydimethylsiloxane Elastomer Exposed to Partial Electrical Discharge. <i>Journal of Colloid and Interface Science</i> , 2000, 226, 231-236.	5.0	190
16	Meniscus Instability in a Thin Elastic Film. <i>Physical Review Letters</i> , 2000, 85, 4329-4332.	2.9	185
17	Roles of discontinuities in bio-inspired adhesive pads. <i>Journal of the Royal Society Interface</i> , 2005, 2, 55-61.	1.5	179
18	Peeling from a biomimetically patterned thin elastic film. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2004, 460, 2725-2735.	1.0	178

#	ARTICLE	IF	CITATIONS
19	Interfacial Rate Processes in Adhesion and Friction. <i>Journal of Physical Chemistry B</i> , 2000, 104, 4018-4030.	1.2	162
20	Monolayers on disordered substrates: self-assembly of alkyltrichlorosilanes on surface-modified polyethylene and poly(dimethylsiloxane). <i>Macromolecules</i> , 1993, 26, 5870-5875.	2.2	154
21	The Mechanisms of Hydrophobic Recovery of Polydimethylsiloxane Elastomers Exposed to Partial Electrical Discharges. <i>Journal of Colloid and Interface Science</i> , 2001, 244, 200-207.	5.0	145
22	Adhesion-Induced Instability Patterns in Thin Confined Elastic Film. <i>Langmuir</i> , 2003, 19, 2621-2631.	1.6	143
23	Synthesis and Surface Properties of Environmentally Responsive Segmented Polyurethanes. <i>Journal of Colloid and Interface Science</i> , 2002, 249, 235-245.	5.0	135
24	Study of the Self-Adhesion Hysteresis of a Siloxane Elastomer Using the JKR Method. <i>Langmuir</i> , 1994, 10, 2466-2470.	1.6	133
25	The Effects of Molecular Weight and Temperature on the Kinetic Friction of Silicone Rubbers. <i>Langmuir</i> , 2003, 19, 6778-6787.	1.6	129
26	Effect of Interfacial Slippage on Viscoelastic Adhesion. <i>Langmuir</i> , 1997, 13, 1805-1809.	1.6	118
27	The Orientation of Semifluorinated Alkanes Attached to Polymers at the Surface of Polymer Films. <i>Macromolecules</i> , 2000, 33, 1882-1887.	2.2	115
28	Rate-Dependent Fracture at Adhesive Interface. <i>Journal of Physical Chemistry B</i> , 1999, 103, 6562-6566.	1.2	103
29	Surface Modification of Silicone Elastomer Using Perfluorinated Ether. <i>Langmuir</i> , 2000, 16, 1256-1260.	1.6	98
30	Motion of Drops on a Surface Induced by Thermal Gradient and Vibration. <i>Langmuir</i> , 2008, 24, 10833-10837.	1.6	96
31	Soft and Hard Adhesion. <i>Journal of Adhesion</i> , 2005, 81, 1119-1145.	1.8	94
32	Adhesion hysteresis and friction. <i>Langmuir</i> , 1993, 9, 29-31.	1.6	87
33	Surface properties and hemocompatibility of alkyl-siloxane monolayers supported on silicone rubber: effect of alkyl chain length and ionic functionality. <i>Biomaterials</i> , 1999, 20, 1533-1543.	5.7	84
34	Spread the word about nanofluids. <i>Nature</i> , 2003, 423, 131-132.	13.7	82
35	Estimation of Adhesion Hysteresis at Polymer/Oxide Interfaces Using Rolling Contact Mechanics. <i>Langmuir</i> , 1998, 14, 3090-3100.	1.6	81
36	Direct Measurement of the Surface Tension of a Soft Elastic Hydrogel: Exploration of Elastocapillary Instability in Adhesion. <i>Langmuir</i> , 2013, 29, 6926-6935.	1.6	80

#	ARTICLE	IF	CITATIONS
37	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
38	Measuring the Work of Adhesion between a Soft Confined Film and a Flexible Plate. Langmuir, 2005, 21, 1277-1281.	1.6	71
39	Motion of Liquid Drops on Surfaces Induced by Asymmetric Vibration: Role of Contact Angle Hysteresis. Langmuir, 2011, 27, 10327-10333.	1.6	71
40	Friction in Adhesion. Langmuir, 1998, 14, 4865-4872.	1.6	69
41	Surface free energies of alkylsiloxane monolayers supported on elastomeric polydimethylsiloxanes. Journal of Adhesion Science and Technology, 1993, 7, 669-675.	1.4	68
42	Investigation of Capillary Forces Using Atomic Force Microscopy. Langmuir, 2001, 17, 7823-7829.	1.6	62
43	Generation of Motion of Drops with Interfacial Contact. Langmuir, 2015, 31, 9266-9281.	1.6	57
44	Modeling hydrophobic recovery of electrically discharged polydimethylsiloxane elastomers. Journal of Colloid and Interface Science, 2006, 293, 364-375.	5.0	50
45	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
46	Self-assembled monolayers on polymer surfaces. Biosensors and Bioelectronics, 1995, 10, 785-788.	5.3	44
47	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
48	Order/disorder gradients of n-alkanethiols on gold. Colloids and Surfaces B: Biointerfaces, 1999, 15, 57-70.	2.5	40
49	Adhesion-induced instabilities and pattern formation in thin films of elastomers and gels. European Physical Journal E, 2015, 38, 82.	0.7	38
50	Fracture behavior of an epoxy/aluminum interface reinforced by sol-gel coatings. Journal of Adhesion Science and Technology, 2006, 20, 277-305.	1.4	36
51	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
52	Failure of Elastomeric Polymers Due to Rate Dependent Bond Rupture. Langmuir, 2004, 20, 6052-6064.	1.6	31
53	Diffusive motion with nonlinear friction: apparently Brownian. Journal of Chemical Physics, 2010, 133, 024702.	1.2	31
54	Adhesion and friction of self-assembled organic monolayers. Current Opinion in Colloid and Interface Science, 1997, 2, 65-69.	3.4	30

#	ARTICLE	IF	CITATIONS
55	Thermal Fluctuations Limit the Adhesive Strength of Compliant Solids. <i>Journal of Adhesion</i> , 2006, 82, 671-696.	1.8	28
56	New Drop Fluidics Enabled by Magnetic-Field-Mediated Elastocapillary Transduction. <i>Langmuir</i> , 2016, 32, 6860-6870.	1.6	27
57	Estimation of Adhesion Hysteresis Using Rolling Contact Mechanics. <i>Langmuir</i> , 2000, 16, 622-625.	1.6	26
58	Critical Confinement and Elastic Instability in Thin Solid Films. <i>Journal of Adhesion</i> , 2007, 83, 679-704.	1.8	24
59	Coalescence of drops near a hydrophilic boundary leads to long range directed motion. <i>Extreme Mechanics Letters</i> , 2014, 1, 104-113.	2.0	22
60	Activated drops: Self-excited oscillation, critical speeding and noisy transport. <i>European Physical Journal E</i> , 2013, 36, 15.	0.7	21
61	Drop Motion Induced by Repeated Stretching and Relaxation on a Gradient Surface with Hysteresis. <i>Langmuir</i> , 2012, 28, 13912-13918.	1.6	20
62	Elastocapillary Interaction of Particles on the Surfaces of Ultrasoft Gels: A Novel Route To Study Self-Assembly and Soft Lubrication. <i>Langmuir</i> , 2014, 30, 4684-4693.	1.6	18
63	Settlement behavior of swimming algal spores on gradient surfaces. <i>Biointerphases</i> , 2006, 1, 18-21.	0.6	17
64	Surface Folding-Induced Attraction and Motion of Particles in a Soft Elastic Gel: Cooperative Effects of Surface Tension, Elasticity, and Gravity. <i>Langmuir</i> , 2013, 29, 15543-15550.	1.6	17
65	Super spreading of oil by condensed water drops. <i>Soft Matter</i> , 2005, 1, 431.	1.2	16
66	Brownian Motion of a Drop with Hysteresis Dissipation. <i>Langmuir</i> , 2008, 24, 6128-6132.	1.6	16
67	Using Electrocapillarity to Measure the Zeta Potential of a Planar Hydrophobic Surface in Contact with Water and Nonionic Surfactant Solutions. <i>Langmuir</i> , 2008, 24, 14276-14281.	1.6	15
68	Elastowetting of Soft Hydrogel Spheres. <i>Langmuir</i> , 2018, 34, 3894-3900.	1.6	14
69	A quantitative theory of negative adsorption of nonelectrolytes caused by repulsive van der Waals forces. <i>Langmuir</i> , 1985, 1, 673-678.	1.6	11
70	Elastic Cheerios effect: Self-assembly of cylinders on a soft solid. <i>Europhysics Letters</i> , 2015, 112, 54001.	0.7	11
71	Soft Lithography Using Nectar Droplets. <i>Langmuir</i> , 2015, 31, 13155-13164.	1.6	11
72	Determination of the Modulus of Thin Sol [~] Gel films Using Buckling Instability. <i>Macromolecules</i> , 2010, 43, 6800-6810.	2.2	10

#	ARTICLE	IF	CITATIONS
73	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
74	Studying Friction and Shear Fracture in Thin Confined Films Using a Rotational Shear Apparatus. Langmuir, 2007, 23, 8061-8066.	1.6	8
75	Attraction of Mesoscale Objects on the Surface of a Thin Elastic Film Supported on a Liquid. Langmuir, 2015, 31, 1911-1920.	1.6	8
76	Electrokinetics of Polar Liquids in Contact with Nonpolar Surfaces. Langmuir, 2013, 29, 7793-7801.	1.6	7
77	Further Reflections on the Geometric Mean Combining Rule for Interfacial Tension. Langmuir, 2015, 31, 11296-11304.	1.6	7
78	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
79	Vibrations of sessile drops of soft hydrogels. Extreme Mechanics Letters, 2014, 1, 47-53.	2.0	5
80	Extraction of Organic-Free Water from Detergent Stabilized Emulsion. Industrial & Engineering Chemistry Research, 2019, 58, 21089-21104.	1.8	5
81	How a blister heals. Europhysics Letters, 2013, 104, 46002.	0.7	4
82	Thermodynamic and Kinetic Pathways to Agitated and Spontaneous Emulsification. Langmuir, 2020, 36, 10218-10237.	1.6	4
83	Elastobuoyant Heavy Spheres: A Unique Way to Study Nonlinear Elasticity. Physical Review X, 2016, 6, .	2.8	3
84	Synthesis of surface-active quaternary amino polyfluorosiloxanes. Journal of Applied Polymer Science, 2000, 77, 1700-1708.	1.3	2
85	FRICION AT SOFT POLYMER SURFACE. Series in Sof Condensed Matter, 2008, , 195-219.	0.1	1
86	Extraction of Oil from an Aqueous Emulsion by Coupling Thermal Swing with a Capillary Pump. Langmuir, 2016, 32, 10213-10225.	1.6	1