Animangsu Ghatak

List of Publications by Citations

54 papers	1,459 citations	19 h-index	38 g-index
54 ext. papers	1,576 ext. citations	5.4 avg, IF	4.62 L-index

#	Paper	IF	Citations
54	Meniscus instability in a thin elastic film. *Physical Review Letters*, **2000**, 85, 4329-32	7.4	177
53	Peeling from a biomimetically patterned thin elastic film. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **2004**, 460, 2725-2735	2.4	163
52	Interfacial Rate Processes in Adhesion and Friction. *Journal of Physical Chemistry B*, **2000**, 104, 4018-4030	3.4	144
51	Adhesion-Induced Instability Patterns in Thin Confined Elastic Film. *Langmuir*, **2003**, 19, 2621-2631	4	128
50	Microfluidic adhesion induced by subsurface microstructures. *Science*, **2007**, 318, 258-61	33.3	116
49	Embedded template-assisted fabrication of complex microchannels in PDMS and design of a microfluidic adhesive. *Langmuir*, **2006**, 22, 10291-5	4	106
48	Measuring the work of adhesion between a soft confined film and a flexible plate. *Langmuir*, **2005**, 21, 1277-81	4	66
47	Fibrillar Elastomeric Micropatterns Create Tunable Adhesion Even to Rough Surfaces. *Advanced Functional Materials*, **2016**, 26, 4687-4694	15.6	60
46	Kink instability of a highly deformable elastic cylinder. *Physical Review Letters*, **2007**, 99, 076101	7.4	56
45	Estimation of solid-liquid interfacial tension using curved surface of a soft solid. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 12563-8	11.5	32
44	Adhesion-induced instabilities and pattern formation in thin films of elastomers and gels. *European Physical Journal E*, **2015**, 38, 82	1.5	31
43	Three-dimensional multihelical microfluidic mixers for rapid mixing of liquids. *Langmuir*, **2008**, 24, 2248-51	4	30
42	A bioinspired wet/dry microfluidic adhesive for aqueous environments. *Langmuir*, **2010**, 26, 521-5	4	26
41	Reusable antifouling viscoelastic adhesive with an elastic skin. *Langmuir*, **2012**, 28, 42-6	4	23
40	Peeling off an adhesive layer with spatially varying modulus. *Physical Review E*, **2010**, 81, 021603	2.4	23
39	Critical Confinement and Elastic Instability in Thin Solid Films **2007**, 83, 679-704		23
38	Bioinspired design of a hierarchically structured adhesive. *Langmuir*, **2009**, 25, 611-7	4	22

37	Hysteresis of soft joints embedded with fluid-filled microchannels. *Journal of the Royal Society Interface*, **2009**, 6, 203-8	4.1	22
36	Disordered nanowrinkle substrates for inducing crystallization over a wide range of concentration of protein and precipitant. *Langmuir*, **2013**, 29, 4373-80	4	20
35	Puncturing of soft gels with multi-tip needles. *Journal of Materials Science*, **2011**, 46, 2895-2904	4.3	17
34	Effect of surface modification on frictional properties of polyester fabric. *Tribology International*, **2016**, 97, 38-48	4.9	16
33	Control of adhesion via internally pressurized subsurface microchannels. *Langmuir*, **2012**, 28, 4339-45	4	15
32	Microchannel Induced Surface Bulging of a Soft Elastomeric Layer. *Journal of Adhesion Science and Technology*, **2010**, 24, 2681-2692	2	15
31	Adhesives with patterned sub-surface microstructures. *Journal of Materials Science*, **2011**, 46, 832-838	4.3	13
30	Self oscillating potential generated in patterned micro-fluidic fuel cell. *Electrochimica Acta*, **2013**, 87, 489-496	6.7	12
29	Generation of Aspherical Optical Lenses via Arrested Spreading and Pinching of a Cross-Linkable Liquid. *Langmuir*, **2016**, 32, 5356-64	4	12
28	How to make a cylinder roll uphill. *Soft Matter*, **2012**, 8, 5038	3.6	10
27	Generation of Air–Water Two-Phase Flow Patterns by Altering the Helix Angle in Triple Helical Microchannels. *Industrial & Engineering Chemistry Research*, **2012**, 51, 9356-9364	3.9	9
26	Controlled Crystallization of Macromolecules using Patterned Substrates in a Sandwiched Plate Geometry. *Industrial & Engineering Chemistry Research*, **2011**, 50, 12984-12989	3.9	9
25	Peeling off an adhesive layer with spatially varying topography and shear modulus. *Physical Review E*, **2014**, 89, 032407	2.4	8
24	Harvesting energy of interaction between bacteria and bacteriophage in a membrane-less fuel cell. *Bioresource Technology*, **2013**, 147, 654-657	11	7
23	A co-operative effect of closely spaced intruding objects puncturing into a soft solid. *Soft Matter*, **2014**, 10, 6059-67	3.6	6
22	Design of an Adaptable Optofluidic Aspherical Lens by Using the Elastocapillary Effect. *Advanced Optical Materials*, **2014**, 2, 874-878	8.1	5
21	Direction specific adhesion induced by subsurface liquid filled microchannels. *Soft Matter*, **2012**, 8, 7228	3.6	5
20	Multi-helical micro-channels for rapid generation of drops of water in oil. *Microfluidics and Nanofluidics*, **2013**, 15, 637-646	2.8	4

19	Flow through triple helical microchannel. *Physical Review Fluids*, **2018**, 3,	2.8	4
18	Vibration assisted puncturing of a soft brittle solid. *Extreme Mechanics Letters*, **2019**, 26, 26-34	3.9	4
17	Bi-convex aspheric optical lenses. *Applied Physics Letters*, **2017**, 110, 103701	3.4	3
16	Precipitantless Crystallization of Protein Molecules Induced by High Surface Potential. *Crystal Growth and Design*, **2016**, 16, 5323-5329	3.5	3
15	Measurement of dynamic surface tension using helical flow of a viscous liquid in a pool of another viscous liquid inside a micro-channel. *Microfluidics and Nanofluidics*, **2014**, 17, 573-580	2.8	2
14	Analysis of mixing in a helical microchannel. *Physical Review Fluids*, **2020**, 5,	2.8	2
13	Confinement-Induced Alteration of Morphologies of Oil-Water Emulsions. *Langmuir*, **2019**, 35, 3797-3804	4	2
12	Soft Gel-Filled Composite Adhesive for Dry and Wet Adhesion. *ACS Applied Polymer Materials*, **2021**, 3, 3755-3765	4.3	2
11	The effect of shape on the fracture of a soft elastic gel subjected to shear load. *Soft Matter*, **2018**, 14, 1365-1374	3.6	1
10	Rolling of an elastomeric cylinder: A Marangoni like effect in solid. *Extreme Mechanics Letters*, **2015**, 3, 24-35	3.9	1
9	Bio-inspired adhesion. *Journal of Adhesion Science and Technology*, **2014**, 28, 225-225	2	1
8	Sub-surface fracture of a thin metallic foil under impact loading. *International Journal of Solids and Structures*, **2011**, 48, 2902-2908	3.1	1
7	Microchannel Embedded Elastomeric Layers for Impact Damping **2011**, 87, 531-546		1
6	How does a lizard shed its tail?. *Science*, **2022**, 375, 721-722	33.3	1
5	Effect of roughness on the conductivity of vacuum coated flexible paper electrodes. *Nano Select*, **2021**, 2, 2007	3.1	0
4	Polygonal deformation of a metallic foil subjected to impact by an axisymmetric indenter. *Journal of Adhesion Science and Technology*, **2017**, 31, 1647-1657	2	
3	Optofluidic Lenses: Design of an Adaptable Optofluidic Aspherical Lens by Using the Elastocapillary Effect (Advanced Optical Materials 9/2014). *Advanced Optical Materials*, **2014**, 2, 873-873	8.1	
2	Fingering instability during fracture of a gel block subjected to shear loading. *Physical Review E*, **2020**, 102, 013002	2.4	

List of Publications

1 Liquid Spreading Induced by In Situ Generation of Metallic Nanoparticles. *Langmuir*, **2020**, 36, 12237-12246