

# Rabibrata Mukherjee

## List of Publications by Citations

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90  
papers

2,642  
citations

27  
h-index

49  
g-index

94  
ext. papers

3,087  
ext. citations

4.9  
avg, IF

5.49  
L-index

#	Paper	IF	Citations
90	Selective Molecular Separation by Interfacially Crystallized Covalent Organic Framework Thin Films. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 13083-13091	16.4	431
89	Selective Molecular Sieving in Self-Standing Porous Covalent-Organic-Framework Membranes. <i>Advanced Materials</i> , <b>2017</b> , 29, 1603945	24	366
88	Chemically Delaminated Free-Standing Ultrathin Covalent Organic Nanosheets. <i>Angewandte Chemie - International Edition</i> , <b>2016</b> , 55, 15604-15608	16.4	177
87	Control of morphology in pattern directed dewetting of thin polymer films. <i>Soft Matter</i> , <b>2008</b> , 4, 2086	3.6	108
86	Polyelectrolyte brushes: theory, modelling, synthesis and applications. <i>Soft Matter</i> , <b>2015</b> , 11, 8550-83	3.6	106
85	Instability, self-organization and pattern formation in thin soft films. <i>Soft Matter</i> , <b>2015</b> , 11, 8717-40	3.6	98
84	Stability and dewetting of metal nanoparticle filled thin polymer films: control of instability length scale and dynamics. <i>ACS Nano</i> , <b>2010</b> , 4, 3709-24	16.7	86
83	Interplay of Substrate Surface Energy and Nanoparticle Concentration in Suppressing Polymer Thin Film Dewetting. <i>Macromolecules</i> , <b>2015</b> , 48, 373-382	5.5	51
82	Control of self-organized contact instability and patterning in soft elastic films. <i>Langmuir</i> , <b>2006</b> , 22, 7066-71	4.71	49
81	Influence of substrate wettability on the morphology of thin polymer films spin-coated on topographically patterned substrates. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2012</b> , 4, 1887-96	9.5	46
80	Self-Exfoliated Metal-Organic Nanosheets through Hydrolytic Unfolding of Metal-Organic Polyhedra. <i>Chemistry - A European Journal</i> , <b>2017</b> , 23, 7361-7366	4.8	43
79	Contact instability of thin elastic films on patterned substrates. <i>Journal of Chemical Physics</i> , <b>2007</b> , 127, 064703	3.9	43
78	Replicating and resolving wetting and adhesion characteristics of a Rose petal. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , <b>2019</b> , 561, 9-17	5.1	43
77	Ordered alternating binary polymer nanodroplet array by sequential spin dewetting. <i>Nano Letters</i> , <b>2014</b> , 14, 7009-16	11.5	42
76	Meso-patterning of thin polymer films by controlled dewetting: from nano-droplet arrays to membranes. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2007</b> , 7, 2069-75	1.3	40
75	Chemically Delaminated Free-Standing Ultrathin Covalent Organic Nanosheets. <i>Angewandte Chemie</i> , <b>2016</b> , 128, 15833-15837	3.6	37
74	Thermally tailored gradient topography surface on elastomeric thin films. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 6579-88	9.5	36

73	Creating self-organized submicrometer contact instability patterns in soft elastic bilayers with a topographically patterned stamp. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2012</b> , 4, 355-62	9.5	33
72	A new class of self-healable hydrophobic materials based on ABA triblock copolymer via RAFT polymerization and Diels-Alder click chemistry. <i>Polymer</i> , <b>2017</b> , 119, 195-205	3.9	32
71	Tunable hydrodynamic characteristics in microchannels with biomimetic superhydrophobic (lotus leaf replica) walls. <i>Soft Matter</i> , <b>2014</b> , 10, 3451-62	3.6	32
70	Non lithographic block copolymer directed self-assembled and plasma treated self-cleaning transparent coating for photovoltaic modules and other solar energy devices. <i>Solar Energy Materials and Solar Cells</i> , <b>2018</b> , 188, 127-139	6.4	32
69	Confinement induced ordering in dewetting of ultra-thin polymer bilayers on nanopatterned substrates. <i>Nanoscale</i> , <b>2016</b> , 8, 1073-87	7.7	30
68	Solvent Vapor-Assisted Imprinting of Polymer Films Coated on Curved Surfaces with Flexible PVA Stamps. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2009</b> , 48, 8812-8818	3.9	29
67	Solvent-vapor-assisted dewetting of prepatterned thin polymer films: control of morphology, order, and pattern miniaturization. <i>Langmuir</i> , <b>2015</b> , 31, 3203-14	4	28
66	Self-cleaning V-TiO <sub>2</sub> :SiO <sub>2</sub> thin-film coatings with enhanced transmission for solar glass cover and related applications. <i>Solar Energy</i> , <b>2017</b> , 155, 410-418	6.8	28
65	Ordered to isotropic morphology transition in pattern-directed dewetting of polymer thin films on substrates with different feature heights. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2012</b> , 4, 5375-85	9.5	28
64	Soft lithography meets self-organization: Some new developments in meso-patterning. <i>Bulletin of Materials Science</i> , <b>2008</b> , 31, 249-261	1.7	28
63	Control of Morphology in Pattern Directed Dewetting of a Thin Polymer Bilayer. <i>Macromolecules</i> , <b>2013</b> , 46, 935-948	5.5	24
62	Adhesive force assisted imprinting of soft solid polymer films by flexible foils. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2008</b> , 8, 3406-15	1.3	24
61	Ultrafiltration of oily waste water: Contribution of surface roughness in membrane properties and fouling characteristics of polyacrylonitrile membranes. <i>Canadian Journal of Chemical Engineering</i> , <b>2015</b> , 93, 2031-2042	2.3	22
60	Programming Feature Size in the Thermal Wrinkling of Metal Polymer Bilayer by Modulating Substrate Viscoelasticity. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 23255-23262	9.5	21
59	Directed ordering of phase separated domains and dewetting of thin polymer blend films on a topographically patterned substrate. <i>Soft Matter</i> , <b>2017</b> , 13, 4709-4719	3.6	19
58	Self-organized meso-patterning of soft solids by controlled adhesion: elastic contact lithography. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2007</b> , 7, 1744-52	1.3	19
57	Colloidal Transfer Printing Mediated Fabrication of Zinc Oxide Nanorods for Self-Cleaning Applications. <i>Advanced Materials Interfaces</i> , <b>2019</b> , 6, 1900063	4.6	18
56	Lithographic Tuning of Polymeric Thin Film Surfaces by Stress Relaxation.. <i>ACS Macro Letters</i> , <b>2013</b> , 2, 195-200	6.6	18

55	Solvent vapour mediated spontaneous healing of self-organized defects of liquid crystal films. <i>Soft Matter</i> , <b>2015</b> , 11, 139-46	3.6	17
54	Nano-patterned honey incorporated silk fibroin membranes for improving cellular compatibility. <i>RSC Advances</i> , <b>2014</b> , 4, 44674-44688	3.7	16
53	Creation of Self-Organized Complex Meso Patterns in Solid Thin Films by Confined Capillary Dynamics. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2012</b> , 51, 9546-9553	3.9	16
52	Thermally amendable and thermally stable thin film of POSS tethered Poly(methyl methacrylate) (PMMA) synthesized by ATRP. <i>European Polymer Journal</i> , <b>2016</b> , 75, 276-290	5.2	15
51	Transition from Spin Dewetting to continuous film in spin coating of Liquid Crystal 5CB. <i>Scientific Reports</i> , <b>2018</b> , 8, 7169	4.9	15
50	Programmable Nanopatterns by Controlled Debonding of Soft Elastic Films. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 19409-19416	9.5	15
49	Light Trapping-Mediated Room-Temperature Gas Sensing by Ordered ZnO Nano Structures Decorated with Plasmonic Au Nanoparticles. <i>ACS Omega</i> , <b>2019</b> , 4, 12071-12080	3.9	14
48	Differential Behavior of Normal and Fibrotic Fibroblasts under the Synergistic Influence of Micropillar Topography and the Rigidity of Honey/Silk-Fibroin Substrates. <i>ACS Biomaterials Science and Engineering</i> , <b>2016</b> , 2, 1528-1539	5.5	12
47	Dual cross-linked honey coupled 3D antimicrobial alginate hydrogels for cutaneous wound healing. <i>Materials Science and Engineering C</i> , <b>2020</b> , 116, 111218	8.3	11
46	Transfer printing of colloidal crystals based on UV mediated degradation of a polymer thin film. <i>Chemical Communications</i> , <b>2018</b> , 54, 3484-3487	5.8	11
45	Capillary Force Lithography Pattern-Directed Self-Assembly (CFL-PDSA) of Phase-Separating Polymer Blend Thin Films. <i>ACS Omega</i> , <b>2018</b> , 3, 2161-2168	3.9	10
44	Dynamics of droplet impingement on bioinspired surface: insights into spreading, anomalous stickiness and break-up. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , <b>2019</b> , 475, 20190260	2.4	9
43	Evaporative Drying of Sodium Chloride Solution Droplet on a Thermally Controlled Substrate. <i>Journal of Physical Chemistry B</i> , <b>2020</b> , 124, 1266-1274	3.4	9
42	Charge storage properties of InP quantum dots in GaAs metal-oxide-semiconductor based nonvolatile flash memory devices. <i>Applied Physics Letters</i> , <b>2012</b> , 101, 212108	3.4	9
41	Fabrication of Ordered 2D Colloidal Crystals on Flat and Patterned Substrates by Spin Coating. <i>ACS Omega</i> , <b>2018</b> , 3, 13422-13432	3.9	9
40	Flow and deformation characteristics of a flexible microfluidic channel with axial gradients in wall elasticity. <i>Soft Matter</i> , <b>2020</b> , 16, 5777-5786	3.6	8
39	Tailored topography: a novel fabrication technique using an elasticity gradient. <i>Soft Matter</i> , <b>2018</b> , 14, 7034-7044	3.6	8
38	Mixing characteristics in microchannels with biomimetic superhydrophobic (Lotus leaf replica) walls. <i>Microfluidics and Nanofluidics</i> , <b>2017</b> , 21, 1	2.8	8

37	Surface Instability and Pattern Formation in thin Polymer Films <b>2011</b> , 217-265		8
36	Polymer Thin-Film Dewetting-Mediated Growth of Wettability-Controlled Titania Nanorod Arrays for Highly Responsive, Water-Stable Self-powered UV Photodetectors. <i>ACS Applied Electronic Materials</i> , <b>2020</b> , 2, 2895-2905	4	8
35	Enhanced performance of hybrid self-biased heterojunction photodetector on soft-lithographically patterned organic platform. <i>Nanotechnology</i> , <b>2018</b> , 29, 505301	3.4	8
34	Morphology modulation in evaporative drying mediated crystallization of sodium chloride solution droplet with surfactant. <i>Soft Matter</i> , <b>2018</b> , 14, 7883-7893	3.6	8
33	Formation and control of secondary nanostructures in electro-hydrodynamic patterning of ultra-thin films. <i>Thin Solid Films</i> , <b>2017</b> , 642, 241-251	2.2	7
32	Influence of Substrate Surface Properties on Spin Dewetting, Texture, and Phase Transitions of 5CB Liquid-Crystal Thin Films. <i>Journal of Physical Chemistry B</i> , <b>2020</b> , 124, 1293-1300	3.4	7
31	Phase transition and dewetting of a 5CB liquid crystal thin film on a topographically patterned substrate.. <i>RSC Advances</i> , <b>2019</b> , 9, 21685-21694	3.7	7
30	Catalyst-free direct growth of InP quantum dots on Si by MOCVD: a step toward monolithic integration. <i>Journal of Nanoparticle Research</i> , <b>2012</b> , 14, 1	2.3	7
29	Tunable adhesion and slip on a bio-mimetic sticky soft surface. <i>Soft Matter</i> , <b>2019</b> , 15, 9031-9040	3.6	7
28	Beyond coffee ring: Anomalous self-assembly in evaporating nanofluid droplet on a sticky biomimetic substrate. <i>Applied Physics Letters</i> , <b>2018</b> , 113, 213701	3.4	7
27	Nanoparticle Induced Morphology Modulation in Spin Coated PS/PMMA Blend Thin Films. <i>Langmuir</i> , <b>2020</b> , 36, 15270-15282	4	6
26	Electrodynamic-contact-line-lithography with nematic liquid crystals for template-less E-writing of mesopatterns on soft surfaces. <i>Nanoscale</i> , <b>2019</b> , 11, 16523-16533	7.7	6
25	Therapeutic interfaces of honey in diabetic wound pathology. <i>Wound Medicine</i> , <b>2017</b> , 18, 21-32	2.8	6
24	Patterning of sol gel thin films by capillary force assisted soft lithographic technique. <i>Journal of Sol-Gel Science and Technology</i> , <b>2011</b> , 59, 117-127	2.3	6
23	Improved Mesenchymal Stem Cell Proliferation, Differentiation, Epithelial Transition, and Restrained Senescence on Hierarchically Patterned Porous Honey Silk Fibroin Scaffolds.. <i>ACS Applied Bio Materials</i> , <b>2021</b> , 4, 4328-4344	4.1	6
22	Probing the bacterial detoxification of cadmium to form cadmium sulfide quantum dots and the underlying mechanism. <i>Materials Advances</i> , <b>2020</b> , 1, 1168-1175	3.3	5
21	Deducing Multiple Interfacial Dynamics during Polymeric Foaming. <i>Langmuir</i> , <b>2018</b> , 34, 8024-8030	4	5
20	Reversible morphological switching and deformation hysteresis in electric field mediated instability of thin elastic films. <i>Soft Matter</i> , <b>2019</b> , 15, 3828-3834	3.6	4

19	Pd Nanoparticle-Decorated Hydrogen Plasma-Treated TiO <sub>2</sub> for Photoelectrocatalysis-Based Solar Energy Devices. <i>ACS Applied Electronic Materials</i> , <b>2020</b> , 2, 3936-3945	4	4
18	High Temperature Durability of Oleoplaned Slippery Copper Surfaces. <i>Langmuir</i> , <b>2020</b> , 36, 4135-4143	4	4
17	Self-assembly of a two-dimensional Au-nanocluster superlattice and its photoluminescence spectra. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2009</b> , 9, 190-4	1.3	4
16	Ordering in Dewetting of a Thin Polymer Bilayer with a Topographically Patterned Interface. <i>Macromolecules</i> , <b>2021</b> , 54, 4517-4530	5.5	4
15	Feature Size Modulation in Dewetting of Nanoparticle-Containing Ultrathin Polymer Films. <i>Macromolecules</i> , <b>2021</b> , 54, 2242-2255	5.5	4
14	Substrate wettability guided oriented self assembly of Janus particles. <i>Scientific Reports</i> , <b>2021</b> , 11, 11824.9	4.9	4
13	Controlled Nanoscale Electrohydrodynamic Patterning Using Mesopatterned Template. <i>ACS Omega</i> , <b>2018</b> , 3, 9781-9789	3.9	3
12	Non-wetting Liquid-Infused Slippery Paper. <i>Langmuir</i> , <b>2021</b> , 37, 13627-13636	4	3
11	Hydrophobic recovery of cross-linked polydimethylsiloxane films and its consequence in soft nano patterning. <i>Bulletin of Materials Science</i> , <b>2020</b> , 43, 1	1.7	3
10	Evaluation of grain boundaries as percolation pathways in quartz-rich continental crust using Atomic Force Microscopy. <i>Scientific Reports</i> , <b>2021</b> , 11, 9831	4.9	3
9	Sulfonated co-poly(ether imide)s with alkyne groups: Fabrication of crosslinked membranes and studies on PEM properties including MFC performance. <i>Polymer Engineering and Science</i> , <b>2020</b> , 60, 2097-2110	2.3	2
8	Real-time inferencing of solid-liquid phase equilibria in solution polymerization of polyethylene. <i>Chemical Engineering and Processing: Process Intensification</i> , <b>2004</b> , 43, 1449-1458	3.7	2
7	Phase separation and dewetting of polymer dispersed liquid crystal (PDLC) thin films on flat and patterned substrates. <i>Journal of Molecular Liquids</i> , <b>2021</b> , 341, 117360	6	2
6	Pattern-Directed Phase Transitions and VOC Sensing of Liquid Crystal Films. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2020</b> , 59, 1902-1913	3.9	1
5	Re-entrant structural evolution using electrically heterogeneous patterned electrode. <i>Computer Aided Chemical Engineering</i> , <b>2017</b> , 1213-1218	0.6	1
4	GaAs metal-oxide-semiconductor based non-volatile flash memory devices with InAs quantum dots as charge storage nodes <b>2015</b> ,		1
3	Detailed morphological and kinetic studies of cellulose biosynthesis from <i>Leifsonia soli</i> . <i>Polymer</i> , <b>2022</b> , 242, 124568	3.9	0
2	Nanoparticle-Mediated Stabilization of a Thin Polymer Bilayer. <i>Macromolecules</i> , <b>2022</b> , 55, 1657-1668	5.5	0

- 1 Evaporation-induced alterations in oscillation and flow characteristics of a sessile droplet on a rose-mimetic surface. *Soft Matter*, **2021**, 17, 1487-1496 3.6