

# Rabibrata Mukherjee

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/972402/publications.pdf>

Version: 2024-02-01

91  
papers

3,596  
citations

186209

28  
h-index

143943

57  
g-index

94  
all docs

94  
docs citations

94  
times ranked

4082  
citing authors

#	ARTICLE	IF	CITATIONS
1	Selective Molecular Separation by Interfacially Crystallized Covalent Organic Framework Thin Films. <i>Journal of the American Chemical Society</i> , 2017, 139, 13083-13091.	6.6	695
2	Selective Molecular Sieving in Self-Standing Porous Covalent Organic Framework Membranes. <i>Advanced Materials</i> , 2017, 29, 1603945.	11.1	524
3	Chemically Delaminated Free-Standing Ultrathin Covalent Organic Nanosheets. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 15604-15608.	7.2	242
4	Polyelectrolyte brushes: theory, modelling, synthesis and applications. <i>Soft Matter</i> , 2015, 11, 8550-8583.	1.2	131
5	Instability, self-organization and pattern formation in thin soft films. <i>Soft Matter</i> , 2015, 11, 8717-8740.	1.2	122
6	Control of morphology in pattern directed dewetting of thin polymer films. <i>Soft Matter</i> , 2008, 4, 2086.	1.2	111
7	Stability and Dewetting of Metal Nanoparticle Filled Thin Polymer Films: Control of Instability Length Scale and Dynamics. <i>ACS Nano</i> , 2010, 4, 3709-3724.	7.3	92
8	Replicating and resolving wetting and adhesion characteristics of a Rose petal. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2019, 561, 9-17.	2.3	71
9	Influence of Substrate Wettability on the Morphology of Thin Polymer Films Spin-Coated on Topographically Patterned Substrates. <i>ACS Applied Materials &amp; Interfaces</i> , 2012, 4, 1887-1896.	4.0	55
10	Interplay of Substrate Surface Energy and Nanoparticle Concentration in Suppressing Polymer Thin Film Dewetting. <i>Macromolecules</i> , 2015, 48, 373-382.	2.2	53
11	Chemically Delaminated Free-Standing Ultrathin Covalent Organic Nanosheets. <i>Angewandte Chemie</i> , 2016, 128, 15833-15837.	1.6	52
12	Control of Self-Organized Contact Instability and Patterning in Soft Elastic Films. <i>Langmuir</i> , 2006, 22, 7066-7071.	1.6	49
13	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> , 2017, 155, 410-418.	2.9	48
14	Ordered Alternating Binary Polymer Nanodroplet Array by Sequential Spin Dewetting. <i>Nano Letters</i> , 2014, 14, 7009-7016.	4.5	47
15	Self-Exfoliated Metal-Organic Nanosheets through Hydrolytic Unfolding of Metal-Organic Polyhedra. <i>Chemistry - A European Journal</i> , 2017, 23, 7361-7366.	1.7	45
16	Contact instability of thin elastic films on patterned substrates. <i>Journal of Chemical Physics</i> , 2007, 127, 064703.	1.2	44
17	Thermally Tailored Gradient Topography Surface on Elastomeric Thin Films. <i>ACS Applied Materials &amp; Interfaces</i> , 2014, 6, 6579-6588.	4.0	43
18	Meso-Patterning of Thin Polymer Films by Controlled Dewetting: From Nano-Droplet Arrays to Membranes. <i>Journal of Nanoscience and Nanotechnology</i> , 2007, 7, 2069-2075.	0.9	40

#	ARTICLE	IF	CITATIONS
19	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> , 2018, 188, 127-139.	3.0	40
20	Tunable hydrodynamic characteristics in microchannels with biomimetic superhydrophobic (lotus) Tj ETQq0 0 0 rgBT/Overlock 10 Tf 50	1.2	39
21	A new class of self-healable hydrophobic materials based on ABA triblock copolymer via RAFT polymerization and Diels-Alder "click chemistry". <i>Polymer</i> , 2017, 119, 195-205.	1.8	38
22	Creating Self-Organized Submicrometer Contact Instability Patterns in Soft Elastic Bilayers with a Topographically Patterned Stamp. <i>ACS Applied Materials &amp; Interfaces</i> , 2012, 4, 355-362.	4.0	33
23	Solvent-Vapor-Assisted Dewetting of Prepatterned Thin Polymer Films: Control of Morphology, Order, and Pattern Miniaturization. <i>Langmuir</i> , 2015, 31, 3203-3214.	1.6	33
24	Soft lithography meets self-organization: Some new developments in meso-patterning. <i>Bulletin of Materials Science</i> , 2008, 31, 249-261.	0.8	32
25	Confinement induced ordering in dewetting of ultra-thin polymer bilayers on nanopatterned substrates. <i>Nanoscale</i> , 2016, 8, 1073-1087.	2.8	32
26	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> , 2012, 4, 5375-5385.	4.0	31
27	Solvent Vapor-Assisted Imprinting of Polymer Films Coated on Curved Surfaces with Flexible PVA Stamps. <i>Industrial &amp; Engineering Chemistry Research</i> , 2009, 48, 8812-8818.	1.8	30
28	Programming Feature Size in the Thermal Wrinkling of Metal Polymer Bilayer by Modulating Substrate Viscoelasticity. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 23255-23262.	4.0	29
29	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> , 2015, 93, 2031-2042.	0.9	28
30	Adhesive Force Assisted Imprinting of Soft Solid Polymer Films by Flexible Foils. <i>Journal of Nanoscience and Nanotechnology</i> , 2008, 8, 3406-3415.	0.9	27
31	Control of Morphology in Pattern Directed Dewetting of a Thin Polymer Bilayer. <i>Macromolecules</i> , 2013, 46, 935-948.	2.2	26
32	Lithographic Tuning of Polymeric Thin Film Surfaces by Stress Relaxation. <i>ACS Macro Letters</i> , 2013, 2, 195-200.	2.3	24
33	Directed ordering of phase separated domains and dewetting of thin polymer blend films on a topographically patterned substrate. <i>Soft Matter</i> , 2017, 13, 4709-4719.	1.2	23
34	Solvent vapour mediated spontaneous healing of self-organized defects of liquid crystal films. <i>Soft Matter</i> , 2015, 11, 139-146.	1.2	22
35	Dual cross-linked honey coupled 3D antimicrobial alginate hydrogels for cutaneous wound healing. <i>Materials Science and Engineering C</i> , 2020, 116, 111218.	3.8	22
36	Transition from Spin Dewetting to continuous film in spin coating of Liquid Crystal 5CB. <i>Scientific Reports</i> , 2018, 8, 7169.	1.6	21

#	ARTICLE	IF	CITATIONS
37	Light Trapping-Mediated Room-Temperature Gas Sensing by Ordered ZnO Nano Structures Decorated with Plasmonic Au Nanoparticles. ACS Omega, 2019, 4, 12071-12080.	1.6	21
38	Colloidal Transfer Printing-Mediated Fabrication of Zinc Oxide Nanorods for Self-Cleaning Applications. Advanced Materials Interfaces, 2019, 6, 1900063.	1.9	20
39	Evaporative Drying of Sodium Chloride Solution Droplet on a Thermally Controlled Substrate. Journal of Physical Chemistry B, 2020, 124, 1266-1274.	1.2	20
40	Self-Organized Meso-Patterning of Soft Solids by Controlled Adhesion: Elastic Contact Lithography. Journal of Nanoscience and Nanotechnology, 2007, 7, 1744-1752.	0.9	19
41	Nano-patterned honey incorporated silk fibroin membranes for improving cellular compatibility. RSC Advances, 2014, 4, 44674-44688.	1.7	19
42	Fabrication of Ordered 2D Colloidal Crystals on Flat and Patterned Substrates by Spin Coating. ACS Omega, 2018, 3, 13422-13432.	1.6	19
43	Thermally amendable and thermally stable thin film of POSS tethered Poly(methyl methacrylate) (PMMA) synthesized by ATRP. European Polymer Journal, 2016, 75, 276-290.	2.6	18
44	Improved Mesenchymal Stem Cell Proliferation, Differentiation, Epithelial Transition, and Restrained Senescence on Hierarchically Patterned Porous Honey Silk Fibroin Scaffolds. ACS Applied Bio Materials, 2021, 4, 4328-4344.	2.3	18
45	Dynamics of droplet impingement on bioinspired surface: insights into spreading, anomalous stickiness and break-up. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2019, 475, 20190260.	1.0	17
46	Creation of Self-Organized Complex Meso Patterns in Sol-Gel Thin Films by Confined Capillary Dynamics. Industrial & Engineering Chemistry Research, 2012, 51, 9546-9553.	1.8	16
47	Differential Behavior of Normal and Fibrotic Fibroblasts under the Synergistic Influence of Micropillar Topography and the Rigidity of Honey/Silk-Fibroin Substrates. ACS Biomaterials Science and Engineering, 2016, 2, 1528-1539.	2.6	16
48	Programmable Nanopatterns by Controlled Debonding of Soft Elastic Films. ACS Applied Materials & Interfaces, 2017, 9, 19409-19416.	4.0	16
49	Capillary Force Lithography Pattern-Directed Self-Assembly (CFL-PDSA) of Phase-Separating Polymer Blend Thin Films. ACS Omega, 2018, 3, 2161-2168.	1.6	16
50	Morphology modulation in evaporative drying mediated crystallization of sodium chloride solution droplet with surfactant. Soft Matter, 2018, 14, 7883-7893.	1.2	16
51	Mixing characteristics in microchannels with biomimetic superhydrophobic (Lotus leaf replica) walls. Microfluidics and Nanofluidics, 2017, 21, 1.	1.0	15
52	Transfer printing of colloidal crystals based on UV mediated degradation of a polymer thin film. Chemical Communications, 2018, 54, 3484-3487.	2.2	15
53	Probing the bacterial detoxification of cadmium to form cadmium sulfide quantum dots and the underlying mechanism. Materials Advances, 2020, 1, 1168-1175.	2.6	15
54	Nanoparticle Induced Morphology Modulation in Spin Coated PS/PMMA Blend Thin Films. Langmuir, 2020, 36, 15270-15282.	1.6	14

#	ARTICLE	IF	CITATIONS
55	Phase separation and dewetting of polymer dispersed liquid crystal (PDLC) thin films on flat and patterned substrates. <i>Journal of Molecular Liquids</i> , 2021, 341, 117360.	2.3	14
56	Tunable adhesion and slip on a bio-mimetic sticky soft surface. <i>Soft Matter</i> , 2019, 15, 9031-9040.	1.2	13
57	Flow and deformation characteristics of a flexible microfluidic channel with axial gradients in wall elasticity. <i>Soft Matter</i> , 2020, 16, 5777-5786.	1.2	13
58	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> , 2020, 2, 2895-2905.	2.0	12
59	Pd Nanoparticle-Decorated Hydrogen Plasma-Treated TiO <sub>2</sub> for Photoelectrocatalysis-Based Solar Energy Devices. <i>ACS Applied Electronic Materials</i> , 2020, 2, 3936-3945.	2.0	12
60	Feature Size Modulation in Dewetting of Nanoparticle-Containing Ultrathin Polymer Films. <i>Macromolecules</i> , 2021, 54, 2242-2255.	2.2	12
61	Substrate wettability guided oriented self assembly of Janus particles. <i>Scientific Reports</i> , 2021, 11, 1182.	1.6	12
62	Beyond coffee ring: Anomalous self-assembly in evaporating nanofluid droplet on a sticky biomimetic substrate. <i>Applied Physics Letters</i> , 2018, 113, .	1.5	11
63	Phase transition and dewetting of a 5CB liquid crystal thin film on a topographically patterned substrate. <i>RSC Advances</i> , 2019, 9, 21685-21694.	1.7	11
64	Hydrophobic recovery of cross-linked polydimethylsiloxane films and its consequence in soft nano patterning. <i>Bulletin of Materials Science</i> , 2020, 43, 1.	0.8	11
65	Non-wetting Liquid-Infused Slippery Paper. <i>Langmuir</i> , 2021, 37, 13627-13636.	1.6	11
66	Charge storage properties of InP quantum dots in GaAs metal-oxide-semiconductor based nonvolatile flash memory devices. <i>Applied Physics Letters</i> , 2012, 101, 212108.	1.5	10
67	Catalyst-free direct growth of InP quantum dots on Si by MOCVD: a step toward monolithic integration. <i>Journal of Nanoparticle Research</i> , 2012, 14, 1.	0.8	10
68	Tailored topography: a novel fabrication technique using an elasticity gradient. <i>Soft Matter</i> , 2018, 14, 7034-7044.	1.2	10
69	High Temperature Durability of Oleoplaned Slippery Copper Surfaces. <i>Langmuir</i> , 2020, 36, 4135-4143.	1.6	10
70	Formation and control of secondary nanostructures in electro-hydrodynamic patterning of ultra-thin films. <i>Thin Solid Films</i> , 2017, 642, 241-251.	0.8	9
71	Enhanced performance of hybrid self-biased heterojunction photodetector on soft-lithographically patterned organic platform. <i>Nanotechnology</i> , 2018, 29, 505301.	1.3	9
72	Electrodynamic-contact-line-lithography with nematic liquid crystals for template-less E-writing of mesopatterns on soft surfaces. <i>Nanoscale</i> , 2019, 11, 16523-16533.	2.8	9

#	ARTICLE	IF	CITATIONS
73	Ordering in Dewetting of a Thin Polymer Bilayer with a Topographically Patterned Interface. <i>Macromolecules</i> , 2021, 54, 4517-4530.	2.2	9
74	Patterning of sol gel thin films by capillary force assisted soft lithographic technique. <i>Journal of Sol-Gel Science and Technology</i> , 2011, 59, 117-127.	1.1	8
75	Therapeutic interfaces of honey in diabetic wound pathology. <i>Wound Medicine</i> , 2017, 18, 21-32.	2.7	8
76	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> , 2020, 124, 1293-1300.	1.2	8
77	Deducing Multiple Interfacial Dynamics during Polymeric Foaming. <i>Langmuir</i> , 2018, 34, 8024-8030.	1.6	7
78	Pattern-Directed Phase Transitions and VOC Sensing of Liquid Crystal Films. <i>Industrial &amp; Engineering Chemistry Research</i> , 2020, 59, 1902-1913.	1.8	7
79	Reversible morphological switching and deformation hysteresis in electric field mediated instability of thin elastic films. <i>Soft Matter</i> , 2019, 15, 3828-3834.	1.2	6
80	Nanoparticle-Mediated Stabilization of a Thin Polymer Bilayer. <i>Macromolecules</i> , 2022, 55, 1657-1668.	2.2	6
81	Evaluation of grain boundaries as percolation pathways in quartz-rich continental crust using Atomic Force Microscopy. <i>Scientific Reports</i> , 2021, 11, 9831.	1.6	5
82	Real-time inferencing of solid-liquid phase equilibria in solution polymerization of polyethylene. <i>Chemical Engineering and Processing: Process Intensification</i> , 2004, 43, 1449-1458.	1.8	4
83	Self-Assembly of a Two-Dimensional Au-Nanocluster Superlattice and Its Photoluminescence Spectra. <i>Journal of Nanoscience and Nanotechnology</i> , 2009, 9, 190-194.	0.9	4
84	Controlled Nanoscale Electrohydrodynamic Patterning Using Mesopatterned Template. <i>ACS Omega</i> , 2018, 3, 9781-9789.	1.6	3
85	Detailed morphological and kinetic studies of cellulose biosynthesis from <i>Leifsonia soli</i> . <i>Polymer</i> , 2022, 242, 124568.	1.8	3
86	Sulfonated co-poly(ether imide)s with alkyne groups: Fabrication of crosslinked membranes and studies on <i>PEM</i> properties including <i>MFC</i> performance. <i>Polymer Engineering and Science</i> , 2020, 60, 2097-2110.	1.5	2
87	GaAs metal-oxide-semiconductor based non-volatile flash memory devices with InAs quantum dots as charge storage nodes. <i>AIP Conference Proceedings</i> , 2015, , .	0.3	1
88	Re-entrant structural evolution using electrically heterogeneous patterned electrode. <i>Computer Aided Chemical Engineering</i> , 2017, , 1213-1218.	0.3	1
89	The fascinating world of Soft Materials. <i>Bulletin of Materials Science</i> , 2020, 43, 1.	0.8	1
90	Fabrication of large array of uniform metal nanostructures by use of soft sphere lithography and plasma etching. <i>AIP Conference Proceedings</i> , 2017, , .	0.3	0

#	ARTICLE	IF	CITATIONS
91	Evaporation-induced alterations in oscillation and flow characteristics of a sessile droplet on a rose-mimetic surface. <i>Soft Matter</i> , 2021, 17, 1487-1496.	1.2	0