

Shirsendu Mitra

List of Publications by Citations

Source: <https://exaly.com/author-pdf/1969988/shirsendu-mitra-publications-by-citations.pdf>

Version: 2024-04-23

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

90
papers

1,277
citations

20
h-index

31
g-index

99
ext. papers

1,506
ext. citations

5.1
avg, IF

4.93
L-index

#	Paper	IF	Citations
90	Instability and Dynamics of Thin Liquid Bilayers. <i>Industrial & Engineering Chemistry Research</i> , 2005 , 44, 1259-1272	3.9	88
89	The pH taxis of an intelligent catalytic microbot. <i>Small</i> , 2013 , 9, 1916-20	11	81
88	Nano-enabled paper humidity sensor for mobile based point-of-care lung function monitoring. <i>Biosensors and Bioelectronics</i> , 2017 , 94, 544-551	11.8	60
87	Electric-field-induced interfacial instabilities and morphologies of thin viscous and elastic bilayers. <i>Langmuir</i> , 2009 , 25, 9108-18	4	51
86	Paper-based Amylase detector for point-of-care diagnostics. <i>Biosensors and Bioelectronics</i> , 2016 , 78, 447-453	11.8	47
85	Multimodal chemo-magnetic control of self-propelling microbots. <i>Nanoscale</i> , 2014 , 6, 1398-405	7.7	43
84	Nonlinear instabilities and pathways of rupture in thin liquid bilayers. <i>Journal of Chemical Physics</i> , 2006 , 125, 054711	3.9	42
83	Graphene based multifunctional superbots. <i>Carbon</i> , 2015 , 89, 31-40	10.4	41
82	Magnetic Field Guided Chemotaxis of iMushbots for Targeted Anticancer Therapeutics. <i>ACS Biomaterials Science and Engineering</i> , 2017 , 3, 1627-1640	5.5	35
81	The flow of magnetic nanoparticles in magnetic drug targeting. <i>RSC Advances</i> , 2011 , 1, 238	3.7	34
80	Dewetting of the thin liquid bilayers on topographically patterned substrates: formation of microchannel and microdot arrays. <i>Langmuir</i> , 2008 , 24, 14048-58	4	34
79	Multiscale Pattern Generation in Viscoelastic Polymer Films by Spatiotemporal Modulation of Electric Field and Control of Rheology. <i>Advanced Functional Materials</i> , 2011 , 21, 324-335	15.6	33
78	Electric field induced instabilities in thin confined bilayers. <i>Journal of Colloid and Interface Science</i> , 2007 , 311, 595-608	9.3	30
77	Self-spinning nanoparticle laden microdroplets for sensing and energy harvesting. <i>Nanoscale</i> , 2016 , 8, 6118-28	7.7	29
76	Self-Organized Ordered Arrays of CoreShell Columns in Viscous Bilayers Formed by Spatially Varying Electric Fields. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 21020-21028	3.8	29
75	Dewetting pathways and morphology of unstable thin liquid bilayers. <i>Journal of Physical Chemistry B</i> , 2008 , 112, 11564-72	3.4	29
74	Dynamics of deformation and pinch-off of a migrating compound droplet in a tube. <i>Physical Review E</i> , 2018 , 97, 043112	2.4	25

73	Electric field mediated spraying of miniaturized droplets inside microchannel. <i>Electrophoresis</i> , 2017 , 38, 1450-1457	3.6	25
72	Surface instability of a thin electrolyte film undergoing coupled electroosmotic and electrophoretic flows in a microfluidic channel. <i>Electrophoresis</i> , 2011 , 32, 3257-67	3.6	24
71	Instabilities and pattern miniaturization in confined and free elastic-viscous bilayers. <i>Journal of Chemical Physics</i> , 2008 , 128, 154909	3.9	22
70	Formation of liquid drops at an orifice and dynamics of pinch-off in liquid jets. <i>Physical Review E</i> , 2017 , 96, 013115	2.4	20
69	Point-of-care-testing of α -amylase activity in human blood serum. <i>Biosensors and Bioelectronics</i> , 2019 , 124-125, 75-81	11.8	20
68	Instabilities in free-surface electroosmotic flows. <i>Theoretical and Computational Fluid Dynamics</i> , 2012 , 26, 311-318	2.3	19
67	Discrete electric field mediated droplet splitting in microchannels: Fission, Cascade, and Rayleigh modes. <i>Electrophoresis</i> , 2017 , 38, 278-286	3.6	19
66	Capillary force mediated flow patterns and non-monotonic pressure drop characteristics of oil-water microflows. <i>Canadian Journal of Chemical Engineering</i> , 2015 , 93, 1736-1743	2.3	17
65	Digitization of two-phase flow patterns in a microchannel induced by an external AC field. <i>RSC Advances</i> , 2015 , 5, 29545-29551	3.7	15
64	Electro-magnetic-field-induced flow and interfacial instabilities in confined stratified liquid layers. <i>Theoretical and Computational Fluid Dynamics</i> , 2012 , 26, 23-28	2.3	15
63	From finite-amplitude equilibrium structures to dewetting in thin polymer films on chemically patterned substrates. <i>Soft Matter</i> , 2012 , 8, 10394	3.6	15
62	Electric-Field-Induced Instabilities in Thin Liquid Trilayers Confined between Patterned Electrodes. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 22847-22858	3.8	15
61	Dynamics of drop formation from submerged orifices under the influence of electric field. <i>Physics of Fluids</i> , 2018 , 30, 122104	4.4	15
60	Microdroplet based disposable sensor patch for detection of α -amylase in human blood serum. <i>Biosensors and Bioelectronics</i> , 2020 , 165, 112333	11.8	14
59	Localized electric field induced transition and miniaturization of two-phase flow patterns inside microchannels. <i>Electrophoresis</i> , 2014 , 35, 2930-7	3.6	14
58	Paper Based Enzymatic Chemiresistor for POC Detection of Ethanol in Human Breath. <i>IEEE Sensors Journal</i> , 2020 , 20, 2278-2286	4	14
57	Paper-Sensors for Point-of-Care Monitoring of Drinking Water Quality. <i>IEEE Sensors Journal</i> , 2019 , 19, 7936-7941	4	13
56	Electric field and van der Waals force induced instabilities in thin viscoelastic bilayers. <i>Physics of Fluids</i> , 2012 , 24, 074106	4.4	13

55	Switching of interfacial instabilities from the liquid/air interface to the liquid/liquid interface in a polymer bilayer. <i>Soft Matter</i> , 2011 , 7, 8056	3.6	12
54	Pattern-Directed Ordering of Spin-Dewetted Liquid Crystal Micro- or Nanodroplets as Pixelated Light Reflectors and Locomotives. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 1066-1076	9.5	10
53	Field induced anomalous spreading, oscillation, ejection, spinning, and breaking of oil droplets on a strongly slipping water surface. <i>Faraday Discussions</i> , 2017 , 199, 115-128	3.6	10
52	Long-wave interfacial instabilities in a thin electrolyte film undergoing coupled electrokinetic flows: a nonlinear analysis. <i>Microfluidics and Nanofluidics</i> , 2013 , 15, 19-33	2.8	10
51	Electric field mediated squeezing to bending transitions of interfacial instabilities for digitization and mixing of two-phase microflows. <i>Physics of Fluids</i> , 2019 , 31, 052005	4.4	9
50	Influence of the mutable kinetic parameters on the adhesion and debonding of thin viscoelastic films. <i>Journal of Colloid and Interface Science</i> , 2016 , 477, 109-22	9.3	9
49	Unexplored Pathways To Charge Storage in Supercapacitors. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 195-204	3.8	9
48	Electric field mediated von Kármán vortices in stratified microflows: transition from linear instabilities to coherent mixing. <i>Journal of Fluid Mechanics</i> , 2019 , 865, 169-211	3.7	8
47	Steady and Oscillatory Lorentz-Force-Induced Transport and Digitization of Two-Phase Microflows. <i>Physical Review Applied</i> , 2018 , 10,	4.3	8
46	Magnetically Actuated Carbon Soot Nanoparticle-Based Catalytic CARBOts Coated with Ni/Pt Nanofilms for Water Detoxification and Oil-Spill Recovery. <i>ACS Applied Nano Materials</i> , 2020 , 3, 3459-3470	5.6	7
45	Formic acid powered reusable autonomous ferrobots for efficient hydrogen generation under ambient conditions. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 9209-9219	13	7
44	Magnetic field induced pushpull motility of liquibots. <i>RSC Advances</i> , 2016 , 6, 107049-107056	3.7	7
43	Joint mass transfer of two components associated with the spontaneous interfacial convection in the liquid-liquid extraction system. <i>Chemical Engineering Science</i> , 2019 , 195, 301-311	4.4	7
42	Self-Organized Large-Scale Integration of Mesoscale-Ordered Heterojunctions for Process-Intensified Photovoltaics. <i>Physical Review Applied</i> , 2018 , 10,	4.3	7
41	Graphene oxide nanohybrids for electron transfer-mediated antimicrobial activity. <i>Nanoscale Advances</i> , 2019 , 1, 3727-3740	5.1	6
40	Effects of Fluid-Structure Interaction and Surface Heterogeneity on the Electrophoresis of Microparticles. <i>Industrial & Engineering Chemistry Research</i> , 2019 , 58, 6756-6766	3.9	6
39	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	7.7	6
38	Hierarchical micro- and nanofabrication by pattern-directed contact instabilities of thin viscoelastic films. <i>Physical Review Fluids</i> , 2017 , 2,	2.8	6

37	Micro-patterning of coatings on a fiber surface exploiting the contact instabilities of thin viscoelastic films. <i>Physics of Fluids</i> , 2018 , 30, 114101	4.4	6
36	Efficient microextraction process exploiting spontaneous interfacial convection driven by Marangoni and electric field induced instability: A computational fluid dynamics study. <i>Physics of Fluids</i> , 2020 , 32, 014102	4.4	5
35	Electric-field-mediated instability modes and Fréedericksz transition of thin nematic films. <i>Journal of Fluid Mechanics</i> , 2018 , 834, 464-509	3.7	5
34	Multifunctional liquid marbles to stabilize and transport reactive fluids. <i>Soft Matter</i> , 2021 , 17, 5084-5095	5.6	5
33	Microfluidic Immunosensor for Point-of-Care-Testing of Beta-2-Microglobulin in Tear. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 9268-9276	8.3	4
32	Microdroplet photofuel cells to harvest high-density energy and dye degradation. <i>Nanoscale Advances</i> , 2020 , 2, 1613-1624	5.1	4
31	Multimodal chemo-/magneto-/phototaxis of 3G CNT-bots to power fuel cells. <i>Microsystems and Nanoengineering</i> , 2020 , 6, 19	7.7	4
30	Paper-Based Sensors for Point-of-Care Kidney Function Monitoring. <i>IEEE Sensors Journal</i> , 2020 , 20, 9644-9651	7.651	4
29	Microfluidic Electrolyzers for Production and Separation of Hydrogen from Sea Water using Naturally Abundant Solar Energy. <i>Energy Technology</i> , 2017 , 5, 1208-1217	3.5	4
28	Electro-capillary instabilities of thin leaky elastic-viscous bilayers. <i>Physics of Fluids</i> , 2014 , 26, 122006	4.4	4
27	Self-Organized Micropatterning of Thin Viscous Bilayers Under Microgravity. <i>Microgravity Science and Technology</i> , 2010 , 22, 273-282	1.6	4
26	Electroosmosis with Augmented Mixing in Rigid to Flexible Microchannels with Surface Patterns. <i>Industrial & Engineering Chemistry Research</i> , 2020 , 59, 3717-3729	3.9	4
25	A coupled continuum-statistical model to predict interfacial deformation under an external field. <i>Journal of Colloid and Interface Science</i> , 2021 , 587, 864-875	9.3	4
24	Pathways from disordered to ordered nanostructures from defect guided dewetting of ultrathin bilayers. <i>Journal of Colloid and Interface Science</i> , 2016 , 465, 128-39	9.3	3
23	A computational study on osmotic chemotaxis of a reactive Janusbot. <i>Physics of Fluids</i> , 2020 , 32, 112018	4.4	3
22	Dipolar Alignment in a Ferroelectric Dielectric Layer of FeFETs to Boost Charge Mobility and Nonvolatile Memory. <i>ACS Applied Electronic Materials</i> , 2020 , 2, 3187-3198	4	3
21	Acoustic Wave Catalyzed Urea Detection Utilizing a Pulsatile Microdroplet Sensor. <i>ACS Sustainable Chemistry and Engineering</i> , 2019 ,	8.3	2
20	Self-organized spreading of droplets to fluid toroids. <i>Journal of Colloid and Interface Science</i> , 2020 , 578, 738-748	9.3	2

19	Charge Leakage Mediated Pattern Miniaturization in the Electric Field Induced Instabilities of an Elastic Membrane. <i>Industrial & Engineering Chemistry Research</i> , 2014 , 53, 18840-18851	3.9	2
18	Giant Slip Induced Anomalous Dewetting of an Ultrathin Film on a Viscous Sublayer. <i>Scientific Reports</i> , 2017 , 7, 14776	4.9	2
17	Two Coexisting Modes in Field-Assisted AFM Nanopatterning of Thin Polymer Films. <i>Macromolecular Chemistry and Physics</i> , 2008 , 209, 1358-1366	2.6	2
16	Noninvasive Point-of-Care Nanobiosensing of Cervical Cancer as an Auxiliary to Pap-Smear Test.. <i>ACS Applied Bio Materials</i> , 2021 , 4, 5378-5390	4.1	2
15	Pathways to community transmission of COVID-19 due to rapid evaporation of respiratory virulets.. <i>Journal of Colloid and Interface Science</i> , 2022 , 619, 229-245	9.3	2
14	Pattern-Directed Phase Transitions and VOC Sensing of Liquid Crystal Films. <i>Industrial & Engineering Chemistry Research</i> , 2020 , 59, 1902-1913	3.9	1
13	Carbon dots and Methylene blue facilitated photometric quantification of Hemoglobin.. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2022 , 271, 120906	4.4	1
12	Self-organization of random copolymers to nanopatterns by localized e-beam dosing. <i>Nanotechnology</i> , 2021 , 32,	3.4	1
11	Electric-Discharge-Mediated Jetting, Crowning, Bursting, and Atomization of a Droplet. <i>Physical Review Applied</i> , 2021 , 15,	4.3	1
10	Physicochemical defect guided dewetting of ultrathin films to fabricate nanoscale patterns. <i>Nanotechnology</i> , 2021 , 32, 195303	3.4	1
9	Functional liquid droplets for analyte sensing and energy harvesting. <i>Advances in Colloid and Interface Science</i> , 2021 , 294, 102453	14.3	1
8	Non-Enzymatic Urea Sensing Based on MWCNT Nanocomposite. <i>IEEE Sensors Journal</i> , 2021 , 21, 18417-18424	4.4	1
7	Point-of-care stress detection of muscles using a flexible surface potential measurement prototype. <i>Medical Devices & Sensors</i> , 2019 , 2, e10054	1.6	0
6	Multicomponent counter mass transfer in liquid-liquid extraction in presence of spontaneous interfacial convection. <i>Materials Today: Proceedings</i> , 2021 , 46, 6304-6311	1.4	0
5	Proton exchange membrane and bio-Fenton micro fuel cells for energy harvesting, gas leakage detection, and dye degradation.. <i>RSC Advances</i> , 2021 , 11, 12720-12728	3.7	0
4	Instabilities of a free bilayer flowing on an inclined porous medium. <i>Physical Review E</i> , 2013 , 88, 063012	2.4	
3	Pathologic evidence of retinoblastoma seeds supported by field emission scanning electron microscopy and Raman spectroscopy. <i>Indian Journal of Ophthalmology</i> , 2021 , 69, 3612-3617	1.6	
2	Electric field assisted multicomponent reaction in a microfluidic reactor for superior conversion and yield. <i>Electrophoresis</i> , 2019 , 40, 401-409	3.6	

- 1 A microfluidic viscometer: Translation of oscillatory motion of a water microdroplet in oil under electric field. *Electrophoresis*, **2021**, 42, 2162-2170 3.6