

Sunando DasGupta

List of Publications by Year in descending order

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105
papers

2,067
citations

218677

26
h-index

315739

38
g-index

106
all docs

106
docs citations

106
times ranked

2051
citing authors

#	ARTICLE	IF	CITATIONS
1	Treatment of tanning effluent using nanofiltration followed by reverse osmosis. Separation and Purification Technology, 2006, 50, 291-299.	7.9	81
2	Use of the Augmented Young-Laplace Equation to Model Equilibrium and Evaporating Extended Menisci. Journal of Colloid and Interface Science, 1993, 157, 332-342.	9.4	75
3	Replicating and resolving wetting and adhesion characteristics of a Rose petal. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2019, 561, 9-17.	4.7	71
4	Prediction of permeate flux during electric field enhanced cross-flow ultrafiltration—A neural network approach. Separation and Purification Technology, 2009, 65, 260-268.	7.9	65
5	Flux enhancement by argon—oxygen plasma treatment of polyethersulfone membranes. Separation and Purification Technology, 2009, 70, 160-165.	7.9	58
6	A model of the capillary limit of a micro heat pipe and prediction of the dry-out length. International Journal of Heat and Fluid Flow, 2005, 26, 495-505.	2.4	57
7	Inferred pressure gradient and fluid flow in a condensing sessile droplet based on the measured thickness profile. Physics of Fluids, 2004, 16, 1942-1955.	4.0	51
8	Transient modeling of micro-grooved heat pipe. International Journal of Heat and Mass Transfer, 2005, 48, 1633-1646.	4.8	51
9	Experimental Determination of the Effect of Disjoining Pressure on Shear in the Contact Line Region of a Moving Evaporating Thin Film. Journal of Heat Transfer, 2005, 127, 231-243.	2.1	51
10	Interfacial force field characterization in a constrained vapor bubble thermosyphon. AIChE Journal, 1995, 41, 2140-2149.	3.6	49
11	Prediction of mass transfer coefficient with suction for turbulent flow in cross flow ultrafiltration. Journal of Membrane Science, 1999, 157, 227-239.	8.2	45
12	Effect of Functionalized Magnetic MnFe ₂ O ₄ Nanoparticles on Fibrillation of Human Serum Albumin. Journal of Physical Chemistry B, 2014, 118, 11667-11676.	2.6	45
13	Evaluation of surface roughness of a plasma treated polymeric membrane by wavelet analysis and quantification of its enhanced performance. Applied Surface Science, 2008, 255, 2504-2511.	6.1	42
14	Experimental and theoretical study of axial dryout point for evaporation from V-shaped microgrooves. International Journal of Heat and Mass Transfer, 2002, 45, 1535-1543.	4.8	40
15	A study of electric field enhanced ultrafiltration of synthetic fruit juice and optical quantification of gel deposition. Journal of Membrane Science, 2008, 311, 112-120.	8.2	39
16	Effect of electric field during gel-layer controlled ultrafiltration of synthetic and fruit juice. Journal of Membrane Science, 2008, 307, 268-276.	8.2	38
17	Hydrodynamics in deformable microchannels. Microfluidics and Nanofluidics, 2017, 21, 1.	2.2	38
18	An experimental and theoretical analysis of turbulence promoter assisted ultrafiltration of synthetic fruit juice. Separation and Purification Technology, 2008, 62, 659-667.	7.9	36

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19	Electroosmosis of Viscoelastic Fluids: Role of Wall Depletion Layer. <i>Langmuir</i> , 2017, 33, 12046-12055.	3.5	35
20	Inhibition of Human Serum Albumin Fibrillation by Two-Dimensional Nanoparticles. <i>Journal of Physical Chemistry B</i> , 2017, 121, 5474-5482.	2.6	34
21	Reflectivity-based evaluation of the coalescence of two condensing drops and shape evolution of the coalesced drop. <i>Physical Review E</i> , 2004, 70, 051610.	2.1	33
22	Inhibition of fibrillation of human serum albumin through interaction with chitosan-based biocompatible silver nanoparticles. <i>RSC Advances</i> , 2016, 6, 43104-43115.	3.6	32
23	Molecular Dynamics Study of Thermally Augmented Nanodroplet Motion on Chemical Energy Induced Wettability Gradient Surfaces. <i>Langmuir</i> , 2015, 31, 11260-11268.	3.5	31
24	Thermally enhanced self-propelled droplet motion on gradient surfaces. <i>RSC Advances</i> , 2015, 5, 45266-45275.	3.6	30
25	Flux enhancement in nanofiltration of dye solution using turbulent promoters. <i>Separation and Purification Technology</i> , 2004, 40, 31-39.	7.9	29
26	Electric field enhanced fractionation of protein mixture using ultrafiltration. <i>Journal of Membrane Science</i> , 2009, 341, 11-20.	8.2	28
27	Flow-induced deformation in a microchannel with a non-Newtonian fluid. <i>Biomicrofluidics</i> , 2018, 12, 034116.	2.4	28
28	Pulsed electric field enhanced ultrafiltration of synthetic and fruit juice. <i>Separation and Purification Technology</i> , 2008, 63, 582-591.	7.9	26
29	Effect of submicron particles on electrowetting on dielectrics (EWOD) of sessile droplets. <i>Journal of Colloid and Interface Science</i> , 2011, 363, 640-645.	9.4	26
30	Does Surface Chirality of Gold Nanoparticles Affect Fibrillation of HSA?. <i>Journal of Physical Chemistry C</i> , 2017, 121, 18935-18946.	3.1	26
31	Application of external electric field to enhance the permeate flux during micellar enhanced ultrafiltration. <i>Separation and Purification Technology</i> , 2009, 66, 263-272.	7.9	25
32	Effect of Surface Wettability on Crack Dynamics and Morphology of Colloidal Films. <i>Langmuir</i> , 2015, 31, 6001-6010.	3.5	25
33	Ion-size dependent electroosmosis of viscoelastic fluids in microfluidic channels with interfacial slip. <i>Physics of Fluids</i> , 2017, 29, 072002.	4.0	25
34	Adsorption of Reactive Dyes from a Textile Effluent Using Sawdust as the Adsorbent. <i>Industrial & Engineering Chemistry Research</i> , 2006, 45, 4732-4741.	3.7	24
35	Cross-flow electro-ultrafiltration of mosambi (<i>Citrus sinensis</i> (L.) Osbeck) juice. <i>Journal of Food Engineering</i> , 2008, 89, 241-245.	5.2	22
36	Treatment of soaking effluent from a tannery using membrane separation processes. <i>Desalination</i> , 2007, 216, 160-173.	8.2	20

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37	Hydrophobic tail length plays a pivotal role in amyloid beta (25-35) fibril-surfactant interactions. <i>Proteins: Structure, Function and Bioinformatics</i> , 2016, 84, 1213-1223.	2.6	20
38	Enhanced microcooling by electrically induced droplet oscillation. <i>RSC Advances</i> , 2014, 4, 1074-1082.	3.6	19
39	Dynamics of Electrically Modulated Colloidal Droplet Transport. <i>Langmuir</i> , 2015, 31, 11269-11278.	3.5	19
40	Removal of Cresol from Aqueous Solution Using Fly Ash as Adsorbent: Experiments and Modeling. <i>Separation Science and Technology</i> , 2003, 38, 1345-1360.	2.5	18
41	Oscillating nanofluid droplet for micro-cooling. <i>Sensors and Actuators B: Chemical</i> , 2017, 239, 562-570.	7.8	18
42	Experimental Investigation of Evaporation and Condensation in the Contact Line Region of a Thin Liquid Film Experiencing Small Thermal Perturbations. <i>Langmuir</i> , 2007, 23, 1234-1241.	3.5	17
43	Optical evaluation of deposition thickness and measurement of permeate flux enhancement of simulated fruit juice in presence of turbulence promoters. <i>Journal of Membrane Science</i> , 2008, 315, 58-66.	8.2	17
44	Flux decline during electric field-assisted cross-flow ultrafiltration of mosambi (<i>Citrus sinensis</i> (L.)) Tj ETQq0 0 0 rgBT /Overlock, 10 Tf 50	8.2	17
45	Disruption of human serum albumin fibrils by a static electric field. <i>Journal Physics D: Applied Physics</i> , 2014, 47, 305401.	2.8	17
46	Electrowetting of Partially Wetting Thin Nanofluid Films. <i>Langmuir</i> , 2015, 31, 4160-4168.	3.5	17
47	Collective dynamics of red blood cells on an <i>in vitro</i> microfluidic platform. <i>Lab on A Chip</i> , 2018, 18, 3939-3948.	6.0	17
48	Prediction of permeate flux during osmotic pressure-controlled electric field-enhanced cross-flow ultrafiltration. <i>Journal of Colloid and Interface Science</i> , 2008, 319, 236-246.	9.4	16
49	Anisotropic Electrowetting on Wrinkled Surfaces: Enhanced Wetting and Dependency on Initial Wetting State. <i>Langmuir</i> , 2018, 34, 1844-1854.	3.5	16
50	Analysis of the Distinct Pattern Formation of Globular Proteins in the Presence of Micro- and Nanoparticles. <i>Journal of Physical Chemistry B</i> , 2018, 122, 8972-8984.	2.6	16
51	MODELING OF EVAPORATION FROM V-SHAPED MICROGROOVES. <i>Chemical Engineering Communications</i> , 1997, 160, 225-248.	2.6	15
52	A study of the oscillating corner meniscus in a vertical constrained vapor bubble system. <i>Superlattices and Microstructures</i> , 2004, 35, 559-572.	3.1	15
53	Optical quantification of fouling during nanofiltration of dyes. <i>Separation and Purification Technology</i> , 2006, 52, 372-379.	7.9	15
54	Electric Field Enhanced Spreading of Partially Wetting Thin Liquid Films. <i>Langmuir</i> , 2011, 27, 12951-12959.	3.5	15

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55	Mass transfer coefficient with suction for laminar non-Newtonian flow in application to membrane separations. <i>Journal of Food Engineering</i> , 2004, 64, 53-61.	5.2	14
56	Magnetowetting of Ferrofluidic Thin Liquid Films. <i>Scientific Reports</i> , 2017, 7, 44738.	3.3	13
57	Electrowetting of a nano-suspension on a soft solid. <i>Applied Physics Letters</i> , 2019, 114, .	3.3	13
58	Tunable adhesion and slip on a bio-mimetic sticky soft surface. <i>Soft Matter</i> , 2019, 15, 9031-9040.	2.7	13
59	Interfacial energy driven distinctive pattern formation during the drying of blood droplets. <i>Journal of Colloid and Interface Science</i> , 2020, 573, 307-316.	9.4	13
60	Experimental investigation of enhanced spreading and cooling from a microgrooved surface. <i>Microfluidics and Nanofluidics</i> , 2011, 11, 489-499.	2.2	12
61	Hydropathy: the controlling factor behind the inhibition of A β 2 fibrillation by graphene oxide. <i>RSC Advances</i> , 2016, 6, 103242-103252.	3.6	12
62	Biomimetic pulsatile flows through flexible microfluidic conduits. <i>Biomicrofluidics</i> , 2019, 13, 014103.	2.4	11
63	Modeling and simulation of osmotic pressure controlled electro-ultrafiltration in a cross-flow system. <i>Journal of Membrane Science</i> , 2002, 199, 29-40.	8.2	10
64	Performance prediction of turbulent promoter enhanced nanofiltration of a dye solution. <i>Separation and Purification Technology</i> , 2005, 43, 85-94.	7.9	10
65	Taylor–Aris dispersion induced by axial variation in velocity profile in patterned microchannels. <i>Chemical Engineering Science</i> , 2015, 134, 251-259.	3.8	10
66	Tailored topography: a novel fabrication technique using an elasticity gradient. <i>Soft Matter</i> , 2018, 14, 7034-7044.	2.7	10
67	Treatment of dyeing effluent from tannery using membrane separation processes. <i>International Journal of Environment and Waste Management</i> , 2010, 5, 354.	0.3	9
68	Surface property induced morphological alterations of human erythrocytes. <i>Soft Matter</i> , 2018, 14, 7335-7346.	2.7	9
69	Patterned surface charges coupled with thermal gradients may create giant augmentations of solute dispersion in electro-osmosis of viscoelastic fluids. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2019, 475, 20180522.	2.1	9
70	Modeling of cross-flow osmotic pressure controlled membrane separation processes under turbulent flow conditions. <i>Journal of Membrane Science</i> , 2002, 201, 203-212.	8.2	8
71	Treatment of Liming Effluent from Tannery using Membrane Separation Processes. <i>Separation Science and Technology</i> , 2007, 42, 517-539.	2.5	8
72	Electrowetting of evaporating extended meniscus. <i>Soft Matter</i> , 2012, 8, 11302.	2.7	8

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73	Interfacial force-driven pattern formation during drying of A β (25-35) fibrils. <i>International Journal of Biological Macromolecules</i> , 2015, 79, 344-352.	7.5	8
74	Experimental and Theoretical Evaluation of On-Chip Micro Heat Pipe. <i>Nanoscale and Microscale Thermophysical Engineering</i> , 2015, 19, 75-93.	2.6	8
75	Fibrillar disruption by AC electric field induced oscillation: A case study with human serum albumin. <i>Biophysical Chemistry</i> , 2017, 226, 23-33.	2.8	8
76	Rapid estimation of the β -sheet content of Human Serum Albumin from the drying patterns of HSA-nanoparticle droplets. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2018, 540, 177-185.	4.7	8
77	Development of graphene oxide / PDMS composite dielectric for rapid droplet movement in digital microfluidic applications. <i>Chemical Engineering Science</i> , 2021, 230, 116175.	3.8	8
78	Role of anisotropic pinning and liquid properties during partial rebound of droplets on unidirectionally structured hydrophobic surfaces. <i>Chemical Engineering Science</i> , 2021, 230, 116197.	3.8	8
79	Analysis of augmented droplet transport during electrowetting over triangular coplanar electrode array. <i>Journal of Electrostatics</i> , 2021, 109, 103541.	1.9	8
80	Nano-particles in optimal concentration facilitate electrically driven dynamic spreading of a drop on a soft viscoelastic solid. <i>Physics of Fluids</i> , 2020, 32, .	4.0	8
81	Mass transfer coefficient with suction for turbulent non-Newtonian flow in application to membrane separations. <i>Journal of Food Engineering</i> , 2004, 65, 533-541.	5.2	7
82	Simultaneous Separation of Mixture of Metal Ions and Aromatic Alcohol using Cross Flow Micellar-Enhanced Ultrafiltration and Recovery of Surfactant. <i>Separation Science and Technology</i> , 2008, 43, 71-92.	2.5	7
83	Evaporation mediated translation and encapsulation of an aqueous droplet atop a viscoelastic liquid film. <i>Journal of Colloid and Interface Science</i> , 2021, 581, 334-349.	9.4	7
84	Temperature-gradient-induced massive augmentation of solute dispersion in viscoelastic micro-flows. <i>Journal of Fluid Mechanics</i> , 2020, 897, .	3.4	6
85	Performance evaluation of evaporation from micropillar arrays with different pillar topologies. <i>International Journal of Thermal Sciences</i> , 2021, 168, 107044.	4.9	5
86	Mechanistic Underpinnings of Morphology Transition in Electrodeposition under the Application of Pulsatile Potential. <i>Langmuir</i> , 2022, , .	3.5	5
87	Steady-state modeling for membrane separation of pretreated soaking effluent under cross flow mode. <i>Environmental Progress</i> , 2008, 27, 346-352.	0.7	4
88	Capillary driven flow in wettability altered microchannel. <i>AICHE Journal</i> , 2017, 63, 4616-4627.	3.6	4
89	Rapid determination of erythrocyte sedimentation rate (ESR) by an electrically driven blood droplet biosensor. <i>Biomicrofluidics</i> , 2020, 14, 064108.	2.4	4
90	Molecular Investigation of the Actuation of Electrowetted Nanodroplets. <i>Langmuir</i> , 2022, 38, 3656-3665.	3.5	4

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91	Performance prediction of membrane modules incorporating the effects of suction in the mass transfer coefficient under turbulent flow conditions. Separation and Purification Technology, 2007, 55, 182-190.	7.9	3
92	Contact Line Dynamics during the Evaporation of Extended Colloidal Thin Films: Influence of Liquid Polarity and Particle Size. Langmuir, 2016, 32, 12790-12798.	3.5	3
93	Electrodewetting and Wetting of an Extended Meniscus. Langmuir, 2018, 34, 9897-9906.	3.5	3
94	Performance prediction of membrane modules incorporating the effects of suction in the mass transfer coefficient under laminar flow conditions. Separation and Purification Technology, 2005, 45, 109-118.	7.9	2
95	Response to 'Comment on 'Adsorption of Reactive Dyes from a Textile Effluent Using Sawdust as the Adsorbent'' Industrial & Engineering Chemistry Research, 2006, 45, 7363-7363.	3.7	2
96	Membrane Applications in Fruit Processing Technologies. Contemporary Food Engineering, 2012, , 87-148.	0.2	2
97	Effect of air sparging on flux enhancement during tangential flow filtration of degreasing effluent. Desalination and Water Treatment, 2015, 53, 73-83.	1.0	2
98	Fractal Dimension of Erythrocyte Membranes: A Highly Useful Precursor for Rapid Morphological Assay. Annals of Biomedical Engineering, 2018, 46, 1362-1375.	2.5	2
99	Electro-osmosis Aided Thin-Film Evaporation from a Micropillar Wick Structure. Langmuir, 2022, 38, 8442-8455.	3.5	2
100	PERFORMANCE PREDICTION OF MEMBRANE MODULES INCORPORATING THE EFFECTS OF SUCTION IN THE MASS TRANSFER COEFFICIENT UNDER LAMINAR AND TURBULENT FLOW CONDITIONS FOR NON-NEWTONIAN FLUIDS. Journal of Food Process Engineering, 2009, 32, 752-774.	2.9	1
101	Droplets in Microfluidics. Energy, Environment, and Sustainability, 2018, , 347-379.	1.0	1
102	A Study of an Oscillating Corner Meniscus With Phase Change Using Image Analyzing Interferometry. , 2004, , 317.		0
103	Quantification of transient flux decline during membrane separation of tanning effluent from tannery. International Journal of Environmental Engineering, 2010, 2, 31.	0.1	0
104	Microscale Transport Processes and Interfacial Force Field Characterization in Micro-cooling Devices. , 2010, , 113-130.		0
105	Field-Assisted Contact Line Motion in Thin Films. Langmuir, 2018, 34, 12665-12679.	3.5	0