

Suman Sinha-Ray

List of Publications by Year in descending order

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Version: 2024-02-01

72
papers

3,662
citations

109137

35
h-index

128067

60
g-index

74
all docs

74
docs citations

74
times ranked

4810
citing authors

#	ARTICLE	IF	CITATIONS
1	Renewable and metal-free carbon nanofibre catalysts for carbon dioxide reduction. Nature Communications, 2013, 4, .	5.8	593
2	Electrospun and solution blown three-dimensional carbon fiber nonwovens for application as electrodes in microbial fuel cells. Energy and Environmental Science, 2011, 4, 1417.	15.6	289
3	Electrospinning core-shell nanofibers for interfacial toughening and self-healing of carbon-fiber/epoxy composites. Journal of Applied Polymer Science, 2013, 129, 1383-1393.	1.3	152
4	Self-Healing Reduced Graphene Oxide Films by Supersonic Kinetic Spraying. Advanced Functional Materials, 2014, 24, 4986-4995.	7.8	151
5	Encapsulation of self-healing materials by coelectrospinning, emulsion electrospinning, solution blowing and intercalation. Journal of Materials Chemistry, 2012, 22, 9138.	6.7	129
6	Solution Blowing of Soy Protein Fibers. Biomacromolecules, 2011, 12, 2357-2363.	2.6	92
7	The production of 100/400nm inner/outer diameter carbon tubes by solution blowing and carbonization of core-shell nanofibers. Carbon, 2010, 48, 3575-3578.	5.4	88
8	Pool boiling on nano-textured surfaces. International Journal of Heat and Mass Transfer, 2013, 62, 99-111.	2.5	82
9	Controlled Release of Ciprofloxacin from Core-Shell Nanofibers with Monolithic or Blended Core. Molecular Pharmaceutics, 2016, 13, 1393-1404.	2.3	82
10	Long-Term Sustained Ciprofloxacin Release from PMMA and Hydrophilic Polymer Blended Nanofibers. Molecular Pharmaceutics, 2016, 13, 295-305.	2.3	80
11	Industrial-Scale Solution Blowing of Soy Protein Nanofibers. Industrial & Engineering Chemistry Research, 2016, 55, 323-333.	1.8	80
12	Nano-encapsulated smart tunable phase change materials. Soft Matter, 2011, 7, 8823.	1.2	77
13	Thorny Devil Nanotextured Fibers: The Way to Cooling Rates on the Order of 1 kW/cm^2 . Langmuir, 2011, 27, 215-226.	1.6	76
14	Theoretical and experimental investigation of physical mechanisms responsible for polymer nanofiber formation in solution blowing. Polymer, 2015, 56, 452-463.	1.8	76
15	Inverse-Leidenfrost phenomenon on nanofiber mats on hot surfaces. Physical Review E, 2011, 84, 036310.	0.8	74
16	Meltblowing: I-basic physical mechanisms and threadline model. Journal of Applied Physics, 2010, 108, .	1.1	63
17	Drop impacts on electrospun nanofiber membranes. Soft Matter, 2012, 8, 3957.	1.2	62
18	Supersonic nanoblowing: a new ultra-stiff phase of nylon 6 in 20-50 nm confinement. Journal of Materials Chemistry C, 2013, 1, 3491.	2.7	61

#	ARTICLE	IF	CITATIONS
19	Meltblowing: Multiple polymer jets and fiber-size distribution and lay-down patterns. <i>Polymer</i> , 2011, 52, 2929-2938.	1.8	60
20	Heavy metal adsorption on solution-blown biopolymer nanofiber membranes. <i>Journal of Membrane Science</i> , 2017, 530, 250-263.	4.1	58
21	Intercalation of anti-inflammatory drug molecules within TiO ₂ nanotubes. <i>RSC Advances</i> , 2013, 3, 17380.	1.7	57
22	Two-Stage Desorption-Controlled Release of Fluorescent Dye and Vitamin from Solution-Blown and Electrospun Nanofiber Mats Containing Porogens. <i>Molecular Pharmaceutics</i> , 2013, 10, 4509-4526.	2.3	57
23	Production of Flexible Transparent Conducting Films of Self-Fused Nanowires via One-Step Supersonic Spraying. <i>Advanced Functional Materials</i> , 2017, 27, 1602548.	7.8	54
24	Meltblowing: II-linear and nonlinear waves on viscoelastic polymer jets. <i>Journal of Applied Physics</i> , 2010, 108, .	1.1	53
25	Application of solution-blown 20-50nm nanofibers in filtration of nanoparticles: The efficient van der Waals collectors. <i>Journal of Membrane Science</i> , 2015, 485, 132-150.	4.1	50
26	Antibacterial activity of photocatalytic electrospun titania nanofiber mats and solution-blown soy protein nanofiber mats decorated with silver nanoparticles. <i>Catalysis Communications</i> , 2013, 34, 35-40.	1.6	49
27	Fabrication of drug eluting implants: study of drug release mechanism from titanium dioxide nanotubes. <i>Journal Physics D: Applied Physics</i> , 2015, 48, 275401.	1.3	47
28	Pool boiling of Novec 7300 and self-rewetting fluids on electrically-assisted supersonically solution-blown, copper-plated nanofibers. <i>International Journal of Heat and Mass Transfer</i> , 2016, 95, 83-93.	2.5	47
29	Biopolymer-Based Nanofiber Mats and Their Mechanical Characterization. <i>Industrial & Engineering Chemistry Research</i> , 2013, 52, 15104-15113.	1.8	43
30	Pool boiling on nano-textured surfaces comprised of electrically-assisted supersonically solution-blown, copper-plated nanofibers: Experiments and theory. <i>International Journal of Heat and Mass Transfer</i> , 2015, 87, 521-535.	2.5	43
31	Drop impact cooling enhancement on nano-textured surfaces. Part I: Theory and results of the ground (1g) experiments. <i>International Journal of Heat and Mass Transfer</i> , 2014, 70, 1095-1106.	2.5	42
32	Effect of Chemical and Physical Cross-Linking on Tensile Characteristics of Solution-Blown Soy Protein Nanofiber Mats. <i>Industrial & Engineering Chemistry Research</i> , 2012, 51, 15109-15121.	1.8	41
33	Gravitational Drainage of Foam Films. <i>Langmuir</i> , 2013, 29, 4934-4947.	1.6	40
34	Numerical prediction of the effect of uptake velocity on three-dimensional structure, porosity and permeability of meltblown nonwoven laydown. <i>Polymer</i> , 2016, 85, 19-27.	1.8	38
35	Pool boiling of Novec 7300 and DI water on nano-textured heater covered with supersonically-blown or electrospun polymer nanofibers. <i>International Journal of Heat and Mass Transfer</i> , 2017, 106, 482-490.	2.5	37
36	Stress-strain dependence for soy-protein nanofiber mats. <i>Journal of Applied Physics</i> , 2012, 111, .	1.1	35

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37	Electrospun CNF Supported Ceramics as Electrochemical Catalysts for Water Splitting and Fuel Cell: A Review. <i>Polymers</i> , 2020, 12, 238.	2.0	35
38	Drop impact cooling enhancement on nano-textured surfaces. Part II: Results of the parabolic flight experiments [zero gravity (0g) and supergravity (1.8g)]. <i>International Journal of Heat and Mass Transfer</i> , 2014, 70, 1107-1114.	2.5	34
39	Meltblown fiber mats and their tensile strength. <i>Polymer</i> , 2014, 55, 4241-4247.	1.8	33
40	Blowing drops off a filament. <i>Soft Matter</i> , 2013, 9, 6053.	1.2	32
41	Flow of suspensions of carbon nanotubes carrying phase change materials through microchannels and heat transfer enhancement. <i>Lab on A Chip</i> , 2014, 14, 494-508.	3.1	31
42	Blood rheology in shear and uniaxial elongation. <i>Rheologica Acta</i> , 2016, 55, 901-908.	1.1	31
43	Mechanoresponsive polymer nanoparticles, nanofibers and coatings as drug carriers and components of microfluidic devices. <i>Journal of Materials Chemistry</i> , 2011, 21, 8269.	6.7	25
44	X-ray CT imaging and finite element computations of the elastic properties of a rigid organic foam compared to experimental measurements: insights into foam variability. <i>Journal of Materials Science</i> , 2015, 50, 4012-4024.	1.7	25
45	Swing-like pool boiling on nano-textured surfaces for microgravity applications related to cooling of high-power microelectronics. <i>Npj Microgravity</i> , 2017, 3, 9.	1.9	20
46	Effect of nano-textured heater surfaces on evaporation at a single meniscus. <i>International Journal of Heat and Mass Transfer</i> , 2017, 108, 2444-2450.	2.5	18
47	Prediction of angular and mass distribution in meltblown polymer lay-down. <i>Polymer</i> , 2013, 54, 860-872.	1.8	17
48	Theoretical and experimental study of dissolution mechanism of cellulose. <i>Journal of Molecular Liquids</i> , 2020, 312, 113450.	2.3	17
49	Forced vibration of a heated wire subjected to nucleate boiling. <i>International Journal of Heat and Mass Transfer</i> , 2019, 135, 44-51.	2.5	16
50	Resins with "Nano-Raisins". <i>Langmuir</i> , 2010, 26, 10243-10249.	1.6	15
51	Electrospinning of a blend of a liquid crystalline polymer with poly(ethylene oxide): Vectran nanofiber mats and their mechanical properties. <i>Journal of Materials Chemistry C</i> , 2013, 1, 351-358.	2.7	15
52	Solution-Blown Poly(hydroxybutyrate) and μ -Poly-L-lysine Submicro- and Microfiber-Based Sustainable Nonwovens with Antimicrobial Activity for Single-Use Applications. <i>ACS Biomaterials Science and Engineering</i> , 2021, 7, 3980-3992.	2.6	15
53	Superspreaders Versus "Cousin"-Non-Superspreaders: Disjoining Pressure in Gravitational Film Drainage. <i>Langmuir</i> , 2014, 30, 2619-2631.	1.6	14
54	Industrially scalable Chitosan/Nylon-6 (CS/N) nanofiber-based reusable adsorbent for efficient removal of heavy metal from water. <i>Polymer</i> , 2021, 213, 123333.	1.8	14

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55	Numerical modeling and experimental study of solution-blown nonwovens formed on a rotating drum. <i>Polymer</i> , 2016, 105, 255-263.	1.8	13
56	Strong squeeze flows of yield-stress fluids: The effect of normal deviatoric stresses. <i>Journal of Rheology</i> , 2013, 57, 719-742.	1.3	11
57	Transparent Conducting Electrodes from Conducting Polymer Nanofibers and Their Application as Thin-Film Heaters. <i>Macromolecular Materials and Engineering</i> , 2017, 302, 1700188.	1.7	11
58	Experimental Investigation of Electrokinetic Stabilization of Gravitational Drainage of Ionic Surfactants Films. <i>Electrochimica Acta</i> , 2016, 187, 693-703.	2.6	10
59	Flow from macroscopically long straight carbon nanopores for generation of thermoresponsive nanoparticles. <i>Journal of Applied Physics</i> , 2010, 107, 024903.	1.1	8
60	Electrohydrodynamic Conduction Pumping-Driven Liquid Film Flow Boiling on Bare and Nanofiber-Enhanced Surfaces. <i>Journal of Heat Transfer</i> , 2016, 138, .	1.2	8
61	Modeling Polymer Crystallization Kinetics in the Meltblowing Process. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 399-412.	1.8	8
62	Adhesion of blended polymer films. <i>Polymer</i> , 2017, 112, 92-101.	1.8	7
63	The internal structure of suspensions in uniaxial elongation. <i>Journal of Applied Physics</i> , 2013, 113, .	1.1	6
64	Solution Blowing of Soy Protein Fibers. <i>ACS Symposium Series</i> , 2012, , 335-348.	0.5	4
65	Jets of three-phase power-law fluids and foam jet mixing in gypsum slurry. <i>Construction and Building Materials</i> , 2018, 166, 922-944.	3.2	2
66	Theoretical and experimental study of punched laminate composites protected by outer paper layer. <i>Journal of the Mechanics and Physics of Solids</i> , 2019, 128, 117-136.	2.3	2
67	Chicago Sky Blue diazo-dye release from poly(methyl methacrylate) (PMMA) electrospun nanofibers. <i>Journal of Molecular Liquids</i> , 2022, 345, 117771.	2.3	2
68	Thermal failure time of non-loadbearing gypsum board assemblies in standard furnace tests. <i>Applied Thermal Engineering</i> , 2017, 127, 1285-1292.	3.0	1
69	Bio-Waste Based Nanofiber Materials. , 2020, , 715-726.		1
70	Enhancement of Nucleate Boiling Heat Transfer With Nanofiber Mat. , 2012, , .		0
71	Spray in Polymer Processing. <i>Energy, Environment, and Sustainability</i> , 2018, , 31-54.	0.6	0
72	Nanomaterial Based Sustainable Thermal Management. , 2020, , 781-793.		0