

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 | 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 |
| 2 | 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 |
| 3 | 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 |
| 4 | Bio-Waste Based Nanofiber Materials. , 2020, , 715-726. | | 1 |
| 5 | Nanomaterial Based Sustainable Thermal Management. , 2020, , 781-793. | | 0 |
| 6 | Theoretical and experimental study of dissolution mechanism of cellulose. <i>Journal of Molecular Liquids</i> , 2020, 312, 113450. | 2.3 | 17 |
| 7 | Electrospun CNF Supported Ceramics as Electrochemical Catalysts for Water Splitting and Fuel Cell: A Review. <i>Polymers</i> , 2020, 12, 238. | 2.0 | 35 |
| 8 | Modeling Polymer Crystallization Kinetics in the Meltblowing Process. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 399-412. | 1.8 | 8 |
| 9 | 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 |
| 10 | 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 |
| 11 | Spray in Polymer Processing. <i>Energy, Environment, and Sustainability</i> , 2018, , 31-54. | 0.6 | 0 |
| 12 | 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 |
| 13 | 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 |
| 14 | Heavy metal adsorption on solution-blown biopolymer nanofiber membranes. <i>Journal of Membrane Science</i> , 2017, 530, 250-263. | 4.1 | 58 |
| 15 | Adhesion of blended polymer films. <i>Polymer</i> , 2017, 112, 92-101. | 1.8 | 7 |
| 16 | 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 |
| 17 | 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 |
| 18 | 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 |

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|----|--|-----|-----------|
| 19 | 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 |
| 20 | 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 |
| 21 | Blood rheology in shear and uniaxial elongation. <i>Rheologica Acta</i> , 2016, 55, 901-908. | 1.1 | 31 |
| 22 | Numerical modeling and experimental study of solution-blown nonwovens formed on a rotating drum. <i>Polymer</i> , 2016, 105, 255-263. | 1.8 | 13 |
| 23 | Experimental Investigation of Electrokinetic Stabilization of Gravitational Drainage of Ionic Surfactants Films. <i>Electrochimica Acta</i> , 2016, 187, 693-703. | 2.6 | 10 |
| 24 | 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 |
| 25 | Long-Term Sustained Ciprofloxacin Release from PMMA and Hydrophilic Polymer Blended Nanofibers. <i>Molecular Pharmaceutics</i> , 2016, 13, 295-305. | 2.3 | 80 |
| 26 | Controlled Release of Ciprofloxacin from Core-Shell Nanofibers with Monolithic or Blended Core. <i>Molecular Pharmaceutics</i> , 2016, 13, 1393-1404. | 2.3 | 82 |
| 27 | Pool boiling of Novec 7300 and self-wetting 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 |
| 28 | 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 |
| 29 | Industrial-Scale Solution Blowing of Soy Protein Nanofibers. <i>Industrial & Engineering Chemistry Research</i> , 2016, 55, 323-333. | 1.8 | 80 |
| 30 | Theoretical and experimental investigation of physical mechanisms responsible for polymer nanofiber formation in solution blowing. <i>Polymer</i> , 2015, 56, 452-463. | 1.8 | 76 |
| 31 | 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 |
| 32 | 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 |
| 33 | 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 |
| 34 | 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 |
| 35 | Self-Healing Reduced Graphene Oxide Films by Supersonic Kinetic Spraying. <i>Advanced Functional Materials</i> , 2014, 24, 4986-4995. | 7.8 | 151 |
| 36 | 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 |

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| 37 | 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 |
| 38 | 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 |
| 39 | Superspreaders Versus "Cousin" Non-Superspreaders: Disjoining Pressure in Gravitational Film Drainage. <i>Langmuir</i> , 2014, 30, 2619-2631. | 1.6 | 14 |
| 40 | Meltblown fiber mats and their tensile strength. <i>Polymer</i> , 2014, 55, 4241-4247. | 1.8 | 33 |
| 41 | Pool boiling on nano-textured surfaces. <i>International Journal of Heat and Mass Transfer</i> , 2013, 62, 99-111. | 2.5 | 82 |
| 42 | Biopolymer-Based Nanofiber Mats and Their Mechanical Characterization. <i>Industrial & Engineering Chemistry Research</i> , 2013, 52, 15104-15113. | 1.8 | 43 |
| 43 | Renewable and metal-free carbon nanofibre catalysts for carbon dioxide reduction. <i>Nature Communications</i> , 2013, 4, . | 5.8 | 593 |
| 44 | Intercalation of anti-inflammatory drug molecules within TiO ₂ nanotubes. <i>RSC Advances</i> , 2013, 3, 17380. | 1.7 | 57 |
| 45 | Blowing drops off a filament. <i>Soft Matter</i> , 2013, 9, 6053. | 1.2 | 32 |
| 46 | Electrospinning core-shell nanofibers for interfacial toughening and self-healing of carbon fiber/epoxy composites. <i>Journal of Applied Polymer Science</i> , 2013, 129, 1383-1393. | 1.3 | 152 |
| 47 | Prediction of angular and mass distribution in meltblown polymer lay-down. <i>Polymer</i> , 2013, 54, 860-872. | 1.8 | 17 |
| 48 | 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 |
| 49 | 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 |
| 50 | Supersonic nanoblowing: a new ultra-stiff phase of nylon 6 in 20-50 nm confinement. <i>Journal of Materials Chemistry C</i> , 2013, 1, 3491. | 2.7 | 61 |
| 51 | 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 |
| 52 | Gravitational Drainage of Foam Films. <i>Langmuir</i> , 2013, 29, 4934-4947. | 1.6 | 40 |
| 53 | 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 |
| 54 | The internal structure of suspensions in uniaxial elongation. <i>Journal of Applied Physics</i> , 2013, 113, . | 1.1 | 6 |

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|----|--|------|-----------|
| 55 | Stress-strain dependence for soy-protein nanofiber mats. <i>Journal of Applied Physics</i> , 2012, 111, . | 1.1 | 35 |
| 56 | Solution Blowing of Soy Protein Fibers. <i>ACS Symposium Series</i> , 2012, , 335-348. | 0.5 | 4 |
| 57 | 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 |
| 58 | Drop impacts on electrospun nanofiber membranes. <i>Soft Matter</i> , 2012, 8, 3957. | 1.2 | 62 |
| 59 | Enhancement of Nucleate Boiling Heat Transfer With Nanofiber Mat. , 2012, , . | | 0 |
| 60 | Encapsulation of self-healing materials by coelectrospinning, emulsion electrospinning, solution blowing and intercalation. <i>Journal of Materials Chemistry</i> , 2012, 22, 9138. | 6.7 | 129 |
| 61 | Solution Blowing of Soy Protein Fibers. <i>Biomacromolecules</i> , 2011, 12, 2357-2363. | 2.6 | 92 |
| 62 | Thorny Devil Nanotextured Fibers: The Way to Cooling Rates on the Order of 1 kW/cm^2 . <i>Langmuir</i> , 2011, 27, 215-226. | 1.6 | 76 |
| 63 | Nano-encapsulated smart tunable phase change materials. <i>Soft Matter</i> , 2011, 7, 8823. | 1.2 | 77 |
| 64 | Inverse-Leidenfrost phenomenon on nanofiber mats on hot surfaces. <i>Physical Review E</i> , 2011, 84, 036310. | 0.8 | 74 |
| 65 | 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 |
| 66 | Electrospun and solution blown three-dimensional carbon fiber nonwovens for application as electrodes in microbial fuel cells. <i>Energy and Environmental Science</i> , 2011, 4, 1417. | 15.6 | 289 |
| 67 | Meltblowing: Multiple polymer jets and fiber-size distribution and lay-down patterns. <i>Polymer</i> , 2011, 52, 2929-2938. | 1.8 | 60 |
| 68 | The production of 100/400nm inner/outer diameter carbon tubes by solution blowing and carbonization of core-shell nanofibers. <i>Carbon</i> , 2010, 48, 3575-3578. | 5.4 | 88 |
| 69 | Meltblowing: II-linear and nonlinear waves on viscoelastic polymer jets. <i>Journal of Applied Physics</i> , 2010, 108, . | 1.1 | 53 |
| 70 | Flow from macroscopically long straight carbon nanopores for generation of thermoresponsive nanoparticles. <i>Journal of Applied Physics</i> , 2010, 107, 024903. | 1.1 | 8 |
| 71 | Resins with "Nano-Raisins". <i>Langmuir</i> , 2010, 26, 10243-10249. | 1.6 | 15 |
| 72 | Meltblowing: I-basic physical mechanisms and threadline model. <i>Journal of Applied Physics</i> , 2010, 108, . | 1.1 | 63 |