Jessica D Schiffman

List of Publications by Year
in descending order

75 papers	7,276 citations	101543 36 h-index	79698 73 g-index
77 all docs	77 docs citations	77 times ranked	9633 citing authors

#	Article	IF	Citations
1	High Performance Thin-Film Composite Forward Osmosis Membrane. Environmental Science & Technology, 2010, 44, 3812-3818.	10.0	814
2	A Review: Electrospinning of Biopolymer Nanofibers and their Applications. Polymer Reviews, 2008, 48, 317-352.	10.9	715
3	Relating performance of thin-film composite forward osmosis membranes to support layer formation and structure. Journal of Membrane Science, 2011, 367, 340-352.	8.2	535
4	Thin-Film Composite Pressure Retarded Osmosis Membranes for Sustainable Power Generation from Salinity Gradients. Environmental Science & Technology, 2011, 45, 4360-4369.	10.0	479
5	Designing electrospun nanofiber mats to promote wound healing â€“ a review. Journal of Materials Chemistry B, 2013, 1, 4531.	5.8	395
6	Cross-Linking Chitosan Nanofibers. Biomacromolecules, 2007, 8, 594-601.	5.4	379
7	Electrochemical Multiwalled Carbon Nanotube Filter for Viral and Bacterial Removal and Inactivation. Environmental Science & Technology, 2011, 45, 3672-3679.	10.0	345
8	Quantum dots as fluorescent probes: Synthesis, surface chemistry, energy transfer mechanisms, and applications. Sensors and Actuators B: Chemical, 2018, 258, 1191-1214.	7.8	221
9	Electrospinning an essential oil: Cinnamaldehyde enhances the antimicrobial efficacy of chitosan/poly(ethylene oxide) nanofibers. Carbohydrate Polymers, 2014, 113, 561-568.	10.2	201
10	One-Step Electrospinning of Cross-Linked Chitosan Fibers. Biomacromolecules, 2007, 8, 2665-2667.	5.4	193
11	Carboxymethyl Chitosan as a Matrix Material for Platinum, Gold, and Silver Nanoparticles. Biomacromolecules, 2008, 9, 2682-2685.	5.4	186
12	Bioinspired Photocatalytic Shark-Skin Surfaces with Antibacterial and Antifouling Activity via Nanoimprint Lithography. ACS Applied Materials & Interfaces, 2018, 10, 20055-20063.	8.0	150
13	Mechanics of intact bone marrow. Journal of the Mechanical Behavior of Biomedical Materials, 2015, 50, 299-307.	3.1	149
14	Nanofibers in thin-film composite membrane support layers: Enabling expanded application of forward and pressure retarded osmosis. Desalination, 2013, 308, 73-81.	8.2	143
15	Antibacterial Activity of Electrospun Polymer Mats with Incorporated Narrow Diameter Single-Walled Carbon Nanotubes. ACS Applied Materials & Interfaces, 2011, 3, 462-468.	8.0	114
16	Beyond the Single-Nozzle: Coaxial Electrospinning Enables Innovative Nanofiber Chemistries, Geometries, and Applications. ACS Applied Materials & Interfaces, 2021, 13, 48-66.	8.0	108
17	Fewer Bacteria Adhere to Softer Hydrogels. ACS Applied Materials & Interfaces, 2015, 7, 19562-19569.	8.0	104
18	Electrospinning of hyaluronic acid nanofibers from aqueous ammonium solutions. Carbohydrate Polymers, 2012, 87, 926-929.	10.2	102

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19	Characterization of Self-Assembled Polyelectrolyte Complex Nanoparticles Formed from Chitosan and Pectin. Langmuir, 2014, 30, 3441-3447.	3.5	101
20	Underwater Superoleophobic Surfaces Prepared from Polymer Zwitterion/Dopamine Composite Coatings. Advanced Materials Interfaces, 2016, 3, 1500521.	3.7	100
21	Antimicrobial Activity of Silver Ions Released from Zeolites Immobilized on Cellulose Nanofiber Mats. ACS Applied Materials & Interfaces, 2016, 8, 3032-3040.	8.0	99
22	Electrospinning chitosan/poly(ethylene oxide) solutions with essential oils: Correlating solution rheology to nanofiber formation. Carbohydrate Polymers, 2016, 139, 131-138.	10.2	89
23	Bacterial Adhesion Is Affected by the Thickness and Stiffness of Poly(ethylene glycol) Hydrogels. ACS Applied Materials & Interfaces, 2018, 10, 2275-2281.	8.0	87
24	Cross-platform mechanical characterization of lung tissue. PLoS ONE, 2018, 13, e0204765.	2.5	85
25	Antifouling Electrospun Nanofiber Mats Functionalized with Polymer Zwitterions. ACS Applied Materials & Interfaces, 2016, 8, 27585-27593.	8.0	74
26	Biocidal Activity of Plasma Modified Electrospun Polysulfone Mats Functionalized with Polyethyleneimine-Capped Silver Nanoparticles. Langmuir, 2011, 27, 13159-13164.	3.5	73
27	Biodegradable Polymer (PLGA) Coatings Featuring Cinnamaldehyde and Carvacrol Mitigate Biofilm Formation. Langmuir, 2012, 28, 13993-13999.	3.5	72
28	Ultrafiltration Membranes Enhanced with Electrospun Nanofibers Exhibit Improved Flux and Fouling Resistance. Industrial & Engineering Chemistry Research, 2017, 56, 5724-5733.	3.7	70
29	Electrospinning Nanofibers from Chitosan/Hyaluronic Acid Complex Coacervates. Biomacromolecules, 2019, 20, 4191-4198.	5.4	65
30	Complex Coacervation: Chemically Stable Fibers Electrospun from Aqueous Polyelectrolyte Solutions. ACS Macro Letters, 2017, 6, 505-511.	4.8	64
31	Current and Emerging Approaches to Engineer Antibacterial and Antifouling Electrospun Nanofibers. Materials, 2018, 11, 1059.	2.9	64
32	Thermal-Responsive Behavior of a Cell Compatible Chitosan/Pectin Hydrogel. Biomacromolecules, 2015, 16, 1837-1843.	5.4	62
33	Chitin and chitosan: Transformations due to the electrospinning process. Polymer Engineering and Science, 2009, 49, 1918-1928.	3.1	53
34	The natural transparency and piezoelectric response of the Greta oto butterfly wing. Integrative Biology (United Kingdom), 2009, 1, 324.	1.3	51
35	Nanomanufacturing of biomaterials. Materials Today, 2012, 15, 478-485.	14.2	51
36	Graphene-based microfluidics for serial crystallography. Lab on A Chip, 2016, 16, 3082-3096.	6.0	48

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37	Scaling Up Nature: Large Area Flexible Biomimetic Surfaces. ACS Applied Materials & Interfaces, 2015, 7, 23439-23444.	8.0	34
38	Carbon black immobilized in electrospun chitosan membranes. Carbohydrate Polymers, 2011, 84, 1252-1257.	10.2	29
39	Green materials science and engineering reduces biofouling: approaches for medical and membrane-based technologies. Frontiers in Microbiology, 2015, 6, 196.	3.5	29
40	A programmable chemical switch based on triggerable Michael acceptors. Chemical Science, 2020, 11, 2103-2111.	7.4	29
41	Encapsulating bacteria in alginate-based electrospun nanofibers. Biomaterials Science, 2021, 9, 4364-4373.	5.4	29
42	Electrospinning Cargo-Containing Polyelectrolyte Complex Fibers: Correlating Molecular Interactions to Complex Coacervate Phase Behavior and Fiber Formation. Macromolecules, 2018, 51, 8821-8832.	4.8	28
43	Bacteria-Resistant, Transparent, Free-Standing Films Prepared from Complex Coacervates. ACS Applied Bio Materials, 2019, 2, 3926-3933.	4.6	28
44	Antifouling Stripes Prepared from Clickable Zwitterionic Copolymers. Langmuir, 2017, 33, 7028-7035.	3.5	27
45	Spatially Organized Nanopillar Arrays Dissimilarly Affect the Antifouling and Antibacterial Activities of <i>Escherichia coli</i> and <i>Staphylococcus aureus</i>. ACS Applied Nano Materials, 2020, 3, 977-984.	5.0	27
46	Mechanical Properties and Concentrations of Poly(ethylene glycol) in Hydrogels and Brushes Direct the Surface Transport of <i>Staphylococcus aureus</i>. ACS Applied Materials & Interfaces, 2019, 11, 320-330.	8.0	26
47	In Vitro Reconstitution of an Intestinal Mucus Layer Shows That Cations and pH Control the Pore Structure That Regulates Its Permeability and Barrier Function. ACS Applied Bio Materials, 2020, 3, 2897-2909.	4.6	25
48	Antifouling Ultrafiltration Membranes with Retained Pore Size by Controlled Deposition of Zwitterionic Polymers and Poly(ethylene glycol). Langmuir, 2019, 35, 1872-1881.	3.5	24
49	Solid state characterization of Î±-chitin from Vanessa cardui Linnaeus wings. Materials Science and Engineering C, 2009, 29, 1370-1374.	7.3	23
50	Photodynamically Active Electrospun Fibers for Antibiotic-Free Infection Control. ACS Applied Bio Materials, 2019, 2, 4258-4270.	4.6	22
51	Sustainable Living Filtration Membranes. Environmental Science and Technology Letters, 2020, 7, 213-218.	8.7	22
52	Encapsulation of cinnamaldehyde into nanostructured chitosan films. Journal of Applied Polymer Science, 2015, 132, .	2.6	21
53	Polyelectrolyte-Functionalized Nanofiber Mats Control the Collection and Inactivation of Escherichia coli. Materials, 2016, 9, 297.	2.9	19
54	Polymer Particles with a Low Glass Transition Temperature Containing Thermoset Resin Enable Powder Coatings at Room Temperature. Industrial & Engineering Chemistry Research, 2019, 58, 908-916.	3.7	18

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55	Gecko-Inspired Biocidal Organic Nanocrystals Initiated from a Pencil-Drawn Graphite Template. Scientific Reports, 2018, 8, 11618.	3.3	17
56	Fouling-Resistant Hydrogels Prepared by the Swelling-Assisted Infusion and Polymerization of Dopamine. ACS Applied Bio Materials, 2018, 1, 33-41.	4.6	17
57	Predicting the performance of pressure filtration processes by coupling computational fluid dynamics and discrete element methods. Chemical Engineering Science, 2019, 208, 115162.	3.8	15
58	Electrospinning Fibers from Oligomeric Complex Coacervates: No Chain Entanglements Needed. Macromolecules, 2021, 54, 5033-5042.	4.8	14
59	Linear Viscoelasticity and Timeâ€“Alcohol Superposition of Chitosan/Hyaluronic Acid Complex Coacervates. ACS Applied Polymer Materials, 2022, 4, 1617-1625.	4.4	14
60	Localized characterization of brain tissue mechanical properties by needle induced cavitation rheology and volume controlled cavity expansion. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 114, 104168.	3.1	12
61	Robust, Small Diameter Hydrophilic Nanofibers Improve the Flux of Ultrafiltration Membranes. Industrial & Engineering Chemistry Research, 2021, 60, 9179-9188.	3.7	10
62	Phosphate salts facilitate the electrospinning of hyaluronic acid fiber mats. Journal of Materials Science, 2013, 48, 7805-7811.	3.7	9
63	Crosslinking poly(allylamine) fibers electrospun from basic and acidic solutions. Journal of Materials Science, 2013, 48, 7856-7862.	3.7	9
64	Anionic Polymerization of Methylene Malonate for High-Performance Coatings. ACS Applied Polymer Materials, 2019, 1, 657-663.	4.4	8
65	Optimizing the Packing Density and Chemistry of Cellulose Nanofilters for High-Efficiency Particulate Removal. Industrial & Engineering Chemistry Research, 2021, 60, 15720-15729.	3.7	8
66	Preliminary study on mitigating steel reinforcement corrosion with bioactive agent. Cement and Concrete Composites, 2016, 69, 9-17.	10.7	6
67	Facile Postprocessing Alters the Permeability and Selectivity of Microbial Cellulose Ultrafiltration Membranes. Environmental Science & Technology, 2020, 54, 13249-13256.	10.0	6
68	High-Performance, UV-Curable Cross-Linked Films via Grafting of Hydroxyethyl Methacrylate Methylene Malonate. Industrial & Engineering Chemistry Research, 2020, 59, 4542-4548.	3.7	6
69	Memristive Behavior of Mixed Oxide Nanocrystal Assemblies. ACS Applied Materials & Interfaces, 2021, 13, 21635-21644.	8.0	6
70	Ultrasound-assisted dopamine polymerization: rapid and oxidizing agent-free polydopamine coatings on membrane surfaces. Chemical Communications, 2021, 57, 13740-13743.	4.1	6
71	Liquid-Infused Membranes Exhibit Stable Flux and Fouling Resistance. ACS Applied Materials & Interfaces, 2022, 14, 6148-6156.	8.0	6
72	Epoxy Resin-Encapsulated Polymer Microparticles for Room-Temperature Cold Sprayable Coatings. ACS Applied Materials & Interfaces, 2021, 13, 50358-50367.	8.0	4

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73	Polycation-Tethered Micelles as Immobilized Detergents for NAPL Remediation. ACS Symposium Series, 2013, , 97-109.	0.5	1
74	Electrospinning and mechanical evaluation of chitin, chitosan, and chitosan-carbon black membranes. , 2008, , .		0
75	Nanofibers: Electrospinning of Biopolymers. , 0, , 5201-5225.		0