

Caroline L Schauer

List of Publications by Year in descending order

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65
papers

5,406
citations

147786

31
h-index

118840

62
g-index

68
all docs

68
docs citations

68
times ranked

7578
citing authors

#	ARTICLE	IF	CITATIONS
1	Cross-Reactive Chemical Sensor Arrays. <i>Chemical Reviews</i> , 2000, 100, 2595-2626.	47.7	1,194
2	A Review: Electrospinning of Biopolymer Nanofibers and their Applications. <i>Polymer Reviews</i> , 2008, 48, 317-352.	10.9	715
3	Cross-Linking Chitosan Nanofibers. <i>Biomacromolecules</i> , 2007, 8, 594-601.	5.4	379
4	Electrospun hydroxyapatite-containing chitosan nanofibers crosslinked with genipin for bone tissue engineering. <i>Biomaterials</i> , 2012, 33, 9167-9178.	11.4	355
5	Surface modification of plant fibers using environment friendly methods for their application in polymer composites, textile industry and antimicrobial activities: A review. <i>Journal of Environmental Chemical Engineering</i> , 2013, 1, 97-112.	6.7	225
6	One-Step Electrospinning of Cross-Linked Chitosan Fibers. <i>Biomacromolecules</i> , 2007, 8, 2665-2667.	5.4	193
7	Carboxymethyl Chitosan as a Matrix Material for Platinum, Gold, and Silver Nanoparticles. <i>Biomacromolecules</i> , 2008, 9, 2682-2685.	5.4	186
8	Antibacterial properties of electrospun Ti ₃ C ₂ Z (MXene)/chitosan nanofibers. <i>RSC Advances</i> , 2018, 8, 35386-35394.	3.6	149
9	Preparation and characterization of polymer-Ti ₃ C ₂ Z (MXene) composite nanofibers produced via electrospinning. <i>Journal of Applied Polymer Science</i> , 2017, 134, 45295.	2.6	114
10	Fabrication and characterization of 3D hydrogel microarrays to measure antigenicity and antibody functionality for biosensor applications. <i>Biosensors and Bioelectronics</i> , 2004, 20, 753-764.	10.1	108
11	Self-Assembly of Rodlike Hydrogen-Bonded Nanostructures. <i>Journal of the American Chemical Society</i> , 1999, 121, 7154-7155.	13.7	103
12	Electrospinning of hyaluronic acid nanofibers from aqueous ammonium solutions. <i>Carbohydrate Polymers</i> , 2012, 87, 926-929.	10.2	102
13	Controlled Spacing of Metal Atoms via Ligand Hydrogen Bonds. <i>Journal of the American Chemical Society</i> , 1997, 119, 10245-10246.	13.7	100
14	Chitosan Cross-Linking with a Water-Soluble, Blocked Diisocyanate. 1. Solid State. <i>Biomacromolecules</i> , 2002, 3, 1370-1374.	5.4	93
15	Mechanical and microstructural characterization of an alkali-activated slag/limestone fine aggregate concrete. <i>Construction and Building Materials</i> , 2009, 23, 2951-2957.	7.2	92
16	An electrospun PVDF-TrFe fiber sensor platform for biological applications. <i>Sensors and Actuators A: Physical</i> , 2015, 222, 293-300.	4.1	63
17	Color changes in chitosan and poly(allyl amine) films upon metal binding. <i>Thin Solid Films</i> , 2003, 434, 250-257.	1.8	62
18	Crosslinked, electrospun chitosan-poly(ethylene oxide) nanofiber mats. <i>Journal of Applied Polymer Science</i> , 2008, 109, 968-975.	2.6	62

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19	Non-covalent crosslinkers for electrospun chitosan fibers. <i>Carbohydrate Polymers</i> , 2013, 95, 123-133.	10.2	59
20	New crosslinkers for electrospun chitosan fibre mats. I. Chemical analysis. <i>Journal of the Royal Society Interface</i> , 2012, 9, 2551-2562.	3.4	58
21	Chitin and chitosan: Transformations due to the electrospinning process. <i>Polymer Engineering and Science</i> , 2009, 49, 1918-1928.	3.1	53
22	Structurally Colored Thiol Chitosan Thin Films as a Platform for Aqueous Heavy Metal Ion Detection. <i>Biomacromolecules</i> , 2008, 9, 289-295.	5.4	51
23	The natural transparency and piezoelectric response of the Greta oto butterfly wing. <i>Integrative Biology (United Kingdom)</i> , 2009, 1, 324.	1.3	51
24	Structurally Colored Thin Films of Ca ²⁺ -Cross-Linked Alginate. <i>Biomacromolecules</i> , 2007, 8, 33-41.	5.4	50
25	Thin chitosan films as a platform for SPR sensing of ferric ions. <i>Analyst, The</i> , 2008, 133, 673.	3.5	48
26	Selective detection of hexachromium ions by localized surface plasmon resonance measurements using gold nanoparticles/chitosan composite interfaces. <i>Analyst, The</i> , 2009, 134, 881.	3.5	40
27	Variable piezoelectricity of electrospun chitin. <i>Carbohydrate Polymers</i> , 2018, 195, 218-224.	10.2	38
28	Various-sourced pectin and polyethylene oxide electrospun fibers. <i>Carbohydrate Polymers</i> , 2014, 107, 110-118.	10.2	36
29	Effect of electrospinning processing variables on polyacrylonitrile nanoyarns. <i>Journal of Applied Polymer Science</i> , 2018, 135, 46404.	2.6	36
30	Influence of Si:Al ratio on the microstructural and mechanical properties of a fine-limestone aggregate alkali-activated slag concrete. <i>Materials and Structures/Materiaux Et Constructions</i> , 2010, 43, 1025-1035.	3.1	35
31	Effects of cold plasma treatments on spot-inoculated <i>Escherichia coli</i> O157:H7 and quality of baby kale (<i>Brassica oleracea</i>) leaves. <i>Innovative Food Science and Emerging Technologies</i> , 2019, 57, 102104.	5.6	34
32	Colored Thin Films for Specific Metal Ion Detection. <i>Environmental Science & Technology</i> , 2004, 38, 4409-4413.	10.0	33
33	New crosslinkers for electrospun chitosan fibre mats. Part II: mechanical properties. <i>Journal of the Royal Society Interface</i> , 2013, 10, 20120946.	3.4	32
34	Investigation of nanoyarn preparation by modified electrospinning setup. <i>Journal of Applied Polymer Science</i> , 2017, 134, .	2.6	32
35	Carbon black immobilized in electrospun chitosan membranes. <i>Carbohydrate Polymers</i> , 2011, 84, 1252-1257.	10.2	29
36	Silver coordination and hydrogen bonds: a study of competing forces. <i>Crystal Engineering</i> , 1998, 1, 213-223.	0.7	27

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37	Terminal-end functionalization of chondroitin sulfate for the synthesis of biomimetic proteoglycans. <i>Carbohydrate Polymers</i> , 2012, 90, 431-440.	10.2	27
38	The development of antibacterial and hydrophobic functionalities in natural fibers for fiber-reinforced composite materials. <i>Journal of Environmental Chemical Engineering</i> , 2016, 4, 1743-1752.	6.7	25
39	Surface functionalization of lignin constituent of coconut fibers via laccase-catalyzed biografting for development of antibacterial and hydrophobic properties. <i>Journal of Cleaner Production</i> , 2016, 113, 176-182.	9.3	25
40	Aggrecan-like biomimetic proteoglycans (BPGs) composed of natural chondroitin sulfate bristles grafted onto a poly(acrylic acid) core for molecular engineering of the extracellular matrix. <i>Acta Biomaterialia</i> , 2018, 75, 93-104.	8.3	24
41	Combined imaging and chemical sensing of l-glutamate release from the foregut plexus of the Lepidopteran, <i>Manduca sexta</i> . <i>Journal of Neuroscience Methods</i> , 2002, 120, 1-10.	2.5	23
42	Solid state characterization of β -chitin from <i>Vanessa cardui</i> Linnaeus wings. <i>Materials Science and Engineering C</i> , 2009, 29, 1370-1374.	7.3	23
43	In Situ Cross-Linking of Alternating Polyelectrolyte Multilayer Films. <i>Langmuir</i> , 2004, 20, 1807-1811.	3.5	21
44	Self-Folding Textiles through Manipulation of Knit Stitch Architecture. <i>Fibers</i> , 2015, 3, 575-587.	4.0	21
45	Localized Surface Plasmon Resonance of Gold Nanoparticle-Modified Chitosan Films for Heavy-Metal Ions Sensing. <i>Journal of Nanoscience and Nanotechnology</i> , 2009, 9, 350-357.	0.9	18
46	Fabrication and Characterization of Electrospun Semiconductor Nanoparticle-Polyelectrolyte Ultra-Fine Fiber Composites for Sensing Applications. <i>Sensors</i> , 2011, 11, 10372-10387.	3.8	18
47	A reagentless electrochemical biosensor based on a protein scaffold Electronic supplementary information (ESI) available: details regarding protein engineering and purification. See http://www.rsc.org/suppdata/cc/b2/b209452e/ . <i>Chemical Communications</i> , 2003, , 338-339.	4.1	14
48	Piezoelectric electrospun polyacrylonitrile with various tacticities. <i>Journal of Applied Polymer Science</i> , 2019, 136, 47530.	2.6	14
49	On the Effect of Sweat on Sheet Resistance of Knitted Conductive Yarns in Wearable Antenna Design. <i>IEEE Antennas and Wireless Propagation Letters</i> , 2020, 19, 542-546.	4.0	14
50	osteoblast biocompatibility of novel chitosan crosslinker, hexamethylene-1,6-diaminocarboxysulfonate. <i>Journal of Biomedical Materials Research - Part A</i> , 2015, 103, 3026-3033.	4.0	13
51	Microbial damage mitigation strategy in cementitious materials exposed to calcium chloride. <i>Construction and Building Materials</i> , 2019, 195, 1-9.	7.2	13
52	Osteoblast biocompatibility of premineralized, hexamethylene-1,6-diaminocarboxysulfonate crosslinked chitosan fibers. <i>Journal of Biomedical Materials Research - Part A</i> , 2015, 103, 3201-3211.	4.0	12
53	Controllable Formation of Nanoscale Patterns on TiO ₂ by Conductive-AFM Nanolithography. <i>Langmuir</i> , 2008, 24, 8944-8949.	3.5	10
54	Synthesis of macromolecular mimics of small leucine-rich proteoglycans with a poly(ethylene glycol) core and chondroitin sulphate bristles. <i>Carbohydrate Polymers</i> , 2017, 166, 338-347.	10.2	10

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55	Phosphate salts facilitate the electrospinning of hyaluronic acid fiber mats. Journal of Materials Science, 2013, 48, 7805-7811.	3.7	9
56	Crosslinking poly(allylamine) fibers electrospun from basic and acidic solutions. Journal of Materials Science, 2013, 48, 7856-7862.	3.7	9
57	A Cross-Reactive, Class-Selective Enzymatic Array Assay. Journal of the American Chemical Society, 2001, 123, 9443-9444.	13.7	8
58	Touchspinning: Mechanically drawing polyacrylonitrile nanofibers. Journal of Applied Polymer Science, 2022, 139, .	2.6	4
59	Cross-Reactive Optical Sensing Arrays. ACS Symposium Series, 2002, , 318-329.	0.5	3
60	Fabrication and Characterization of Electrospun Pristine and Fluorescent Composite Poly (acrylic) Tj ETQq0 0 0 rgBTJ /Overlock 10 Tf 50 .	1.0	2
61	Extraction of Knitted RFID Antenna Design Parameter from Transmission Line Measurements. , 2020, , .		2
62	Cross-linked Chitosan and Poly(allyl amine) Thin Films. Materials Research Society Symposia Proceedings, 2002, 750, 1.	0.1	1
63	THE OPTICAL DIELECTRIC FUNCTION IN MONOLITHIC Ba x Sr1-x TiO 3 FILMS. Integrated Ferroelectrics, 2010, 111, 27-36.	0.7	0
64	Post-Processing Electrospun Fibers. Materials Research Society Symposia Proceedings, 2011, 1301, 173.	0.1	0
65	Nanofibers: Electrospinning of Biopolymers. , 0, , 5201-5225.		0