

Xiao-Wen Shi

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

118
papers

4,228
citations

39
h-index

60
g-index

124
ext. papers

5,177
ext. citations

8.1
avg, IF

5.84
L-index

#	Paper	IF	Citations
118	Antifatigue Hydration-Induced Polysaccharide Hydrogel Actuators Inspired by Crab Joint Wrinkles.. <i>ACS Applied Materials & Interfaces</i> , 2022 ,	9.5	2
117	One-step electrodeposition of Janus chitosan coating for metallic implants with anti-corrosion properties. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2022 , 641, 128498	5.1	0
116	Janus Fibrous Mats Based Suspended Type Evaporator for Salt Resistant Solar Desalination and Salt Recovery.. <i>Small</i> , 2022 , e2107156	11	6
115	One-step programmable electrofabrication of chitosan asymmetric hydrogels with 3D shape deformation. <i>Carbohydrate Polymers</i> , 2022 , 277, 118888	10.3	1
114	Ion-responsive chitosan hydrogel actuator inspired by carrotwood seed pod. <i>Carbohydrate Polymers</i> , 2022 , 276, 118759	10.3	2
113	Toward scalable fabrication of electrochemical paper sensor without surface functionalization. <i>Npj Flexible Electronics</i> , 2022 , 6,	10.7	1
112	Highly sensitive formaldehyde sensors based on CuO/ZnO composite nanofibrous mats using porous cellulose acetate fibers as templates.. <i>International Journal of Biological Macromolecules</i> , 2022 , 206, 653-660	7.9	0
111	Antibacterial and antioxidant chitosan nanoparticles improve the preservation effect for donor kidneys in vitro.. <i>Carbohydrate Polymers</i> , 2022 , 287, 119326	10.3	0
110	Hollow chitosan hydrogel tube with controllable wrinkled pattern via film-to-tube fabrication.. <i>Carbohydrate Polymers</i> , 2022 , 287, 119333	10.3	2
109	Carboxymethyl chitosan assembled piezoelectric biosensor for rapid and label-free quantification of immunoglobulin Y.. <i>Carbohydrate Polymers</i> , 2022 , 290, 119482	10.3	2
108	Electrodeposition induced covalent cross-linking of chitosan for electrofabrication of hydrogel contact lenses. <i>Carbohydrate Polymers</i> , 2022 , 292, 119678	10.3	0
107	Chitin derived nitrogen-doped porous carbons with ultrahigh specific surface area and tailored hierarchical porosity for high performance supercapacitors. <i>Journal of Bioresources and Bioproducts</i> , 2021 , 6, 142-151	18.7	47
106	Electrochemical synthesis of chitosan/silver nanoparticles multilayer hydrogel coating with pH-dependent controlled release capability and antibacterial property. <i>Colloids and Surfaces B: Biointerfaces</i> , 2021 , 202, 111711	6	12
105	Electrical Writing Induced Covalent Cross-Linking on Hydrogel for Multidimensional Structural Information Storage. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 36538-36547	9.5	11
104	TiO/rectorite-trapped cellulose composite nanofibrous mats for multiple heavy metal adsorption. <i>International Journal of Biological Macromolecules</i> , 2021 , 183, 245-253	7.9	7
103	Chitosan and collagen layer-by-layer assembly modified oriented nanofibers and their biological properties. <i>Carbohydrate Polymers</i> , 2021 , 254, 117438	10.3	15
102	One-step electrochemically induced counterion exchange to construct free-standing carboxylated cellulose nanofiber/metal composite hydrogels. <i>Carbohydrate Polymers</i> , 2021 , 254, 117464	10.3	4

101	A multifunctional dual-shell magnetic nanocomposite with near-infrared light response for synergistic chemo-thermal tumor therapy. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2021 , 109, 841-852	3.5	3
100	Electrical Writing to Three-Dimensional Pattern Dynamic Polysaccharide Hydrogel for Programmable Shape Deformation. <i>Macromolecular Rapid Communications</i> , 2021 , 42, e2000342	4.8	4
99	Electrofabrication of flexible and mechanically strong tubular chitosan implants for peripheral nerve regeneration. <i>Journal of Materials Chemistry B</i> , 2021 , 9, 5537-5546	7.3	5
98	Hydrogel Patterning with Catechol Enables Networked Electron Flow. <i>Advanced Functional Materials</i> , 2021 , 31, 2007709	15.6	9
97	Chitosan-based recyclable composite aerogels for the photocatalytic degradation of rhodamine B. <i>Carbohydrate Polymers</i> , 2021 , 273, 118559	10.3	1
96	Electrical cuing of chitosan's mesoscale organization. <i>Reactive and Functional Polymers</i> , 2020 , 148, 1044926	12.6	9
95	Electrodeposition of Polysaccharide and Protein Hydrogels for Biomedical Applications. <i>Current Medicinal Chemistry</i> , 2020 , 27, 2610-2630	4.3	6
94	Incorporating chitin derived glucosamine sulfate into nanofibers via coaxial electrospinning for cartilage regeneration. <i>Carbohydrate Polymers</i> , 2020 , 229, 115544	10.3	34
93	Applications of chitin and chitosan nanofibers in bone regenerative engineering. <i>Carbohydrate Polymers</i> , 2020 , 230, 115658	10.3	106
92	Diffusion-layer-free air cathode based on ionic conductive hydrogel for microbial fuel cells. <i>Science of the Total Environment</i> , 2020 , 743, 140836	10.2	4
91	Catechol-Based Molecular Memory Film for Redox Linked Bioelectronics. <i>Advanced Electronic Materials</i> , 2020 , 6, 2000452	6.4	5
90	Wire templated electrodeposition of vessel-like structured chitosan hydrogel by using a pulsed electrical signal. <i>Soft Matter</i> , 2020 , 16, 9471-9478	3.6	8
89	Synthesis of polyimide-modified carbon nanotubes as catalyst for organic pollutant degradation via production of singlet oxygen with peroxymonosulfate without light irradiation. <i>Journal of Hazardous Materials</i> , 2020 , 382, 120993	12.8	29
88	Low-temperature plasma treatment-assisted layer-by-layer self-assembly for the modification of nanofibrous mats. <i>Journal of Colloid and Interface Science</i> , 2019 , 540, 535-543	9.3	15
87	Controlled Co-delivery of Growth Factors through Layer-by-Layer Assembly of Core-Shell Nanofibers for Improving Bone Regeneration. <i>ACS Nano</i> , 2019 , 13, 6372-6382	16.7	116
86	Redox Is a Global Biodevice Information Processing Modality. <i>Proceedings of the IEEE</i> , 2019 , 107, 1402-1424	12.3	19
85	Acrylic acid-grafted pre-plasma nanofibers for efficient removal of oil pollution from aquatic environment. <i>Journal of Hazardous Materials</i> , 2019 , 371, 165-174	12.8	43
84	Egg source natural proteins LBL modified cellulose nanofibrous mats and their cellular compatibility. <i>Carbohydrate Polymers</i> , 2019 , 213, 329-337	10.3	14

83	Peroxymonosulfate activation for pollutants degradation by Fe-N-codoped carbonaceous catalyst: Structure-dependent performance and mechanism insight. <i>Chemical Engineering Journal</i> , 2019 , 369, 542-552	14.7	71
82	Nitrogen doped microporous carbon nanospheres derived from chitin nanogels as attractive materials for supercapacitors.. <i>RSC Advances</i> , 2019 , 9, 10976-10982	3.7	26
81	Construction of cellulose nanofibers/quaternized chitin/organic rectorite composites and their application as wound dressing materials. <i>Biomaterials Science</i> , 2019 , 7, 2571-2581	7.4	40
80	Electroassembly of Chitin Nanoparticles to Construct Freestanding Hydrogels and High Porous Aerogels for Wound Healing. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 34766-34776	9.5	23
79	Chitosan/tannic acid bilayers layer-by-layer deposited cellulose nanofibrous mats for antibacterial application. <i>International Journal of Biological Macromolecules</i> , 2019 , 139, 191-198	7.9	39
78	An implantable and versatile piezoresistive sensor for the monitoring of human-machine interface interactions and the dynamical process of nerve repair. <i>Nanoscale</i> , 2019 , 11, 21103-21118	7.7	26
77	Emerging chitin nanogels/rectorite nanocomposites for safe and effective hemorrhage control. <i>Journal of Materials Chemistry B</i> , 2019 , 7, 5096-5103	7.3	12
76	Catechol-Based Capacitor for Redox-Linked Bioelectronics. <i>ACS Applied Electronic Materials</i> , 2019 , 1, 1337-1347	4	9
75	A simple mechanical agitation method to fabricate chitin nanogels directly from chitin solution and subsequent surface modification. <i>Journal of Materials Chemistry B</i> , 2019 , 7, 2226-2232	7.3	7
74	Electrobiofabrication: electrically based fabrication with biologically derived materials. <i>Biofabrication</i> , 2019 , 11, 032002	10.5	25
73	Injectable drug-loaded polysaccharide hybrid hydrogels for hemostasis.. <i>RSC Advances</i> , 2019 , 9, 36858-36866	9.7	27
72	Adsorption of natural composite sandwich-like nanofibrous mats for heavy metals in aquatic environment. <i>Journal of Colloid and Interface Science</i> , 2019 , 539, 533-544	9.3	29
71	Layer-by-layer immobilization of amphoteric carboxymethyl chitosan onto biocompatible silk fibroin nanofibrous mats. <i>Carbohydrate Polymers</i> , 2019 , 210, 9-16	10.3	46
70	N-doped hierarchically porous carbon for highly efficient metal-free catalytic activation of peroxymonosulfate in water: A non-radical mechanism. <i>Chemosphere</i> , 2019 , 216, 545-555	8.4	79
69	Core-shell Prussian blue analogues@ poly(m-phenylenediamine) as efficient peroxymonosulfate activators for degradation of Rhodamine B with reduced metal leaching. <i>Journal of Colloid and Interface Science</i> , 2019 , 534, 586-594	9.3	38
68	Recent advances in chitosan-based self-healing materials. <i>Research on Chemical Intermediates</i> , 2018 , 44, 4827-4840	2.8	33
67	Electrochemical writing on edible polysaccharide films for intelligent food packaging. <i>Carbohydrate Polymers</i> , 2018 , 186, 236-242	10.3	49
66	Fabrication of cellulose nanofibers from waste brown algae and their potential application as milk thickeners. <i>Food Hydrocolloids</i> , 2018 , 79, 473-481	10.6	42

65	Trichloroacetic acid-modulated synthesis of polyoxometalate@UiO-66 for selective adsorption of cationic dyes. <i>Journal of Colloid and Interface Science</i> , 2018 , 516, 274-283	9.3	62
64	Chitosan-rectorite nanospheres embedded aminated polyacrylonitrile nanofibers via shoulder-to-shoulder electrospinning and electro spraying for enhanced heavy metal removal. <i>Applied Surface Science</i> , 2018 , 437, 294-303	6.7	45
63	Electrodeposition to construct mechanically robust chitosan-based multi-channel conduits. <i>Colloids and Surfaces B: Biointerfaces</i> , 2018 , 163, 412-418	6	14
62	Bio-inspired redox-cycling antimicrobial film for sustained generation of reactive oxygen species. <i>Biomaterials</i> , 2018 , 162, 109-122	15.6	40
61	Enhanced physical and biological properties of silk fibroin nanofibers by layer-by-layer deposition of chitosan and rectorite. <i>Journal of Colloid and Interface Science</i> , 2018 , 523, 208-216	9.3	63
60	Electrical Writing onto a Dynamically Responsive Polysaccharide Medium: Patterning Structure and Function into a Reconfigurable Medium. <i>Advanced Functional Materials</i> , 2018 , 28, 1803139	15.6	20
59	Incorporating platelet-rich plasma into coaxial electrospun nanofibers for bone tissue engineering. <i>International Journal of Pharmaceutics</i> , 2018 , 547, 656-666	6.5	47
58	Electrical Programming of Soft Matter: Using Temporally Varying Electrical Inputs To Spatially Control Self Assembly. <i>Biomacromolecules</i> , 2018 , 19, 364-373	6.9	32
57	Structure-, dimension-, and particle size-engineering toward highly efficient supported nanoparticulate metal catalysts. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 18561-18570	13	9
56	Catechol-chitosan redox capacitor for added amplification in electrochemical immunoanalysis. <i>Colloids and Surfaces B: Biointerfaces</i> , 2018 , 169, 470-477	6	10
55	Highly cost-effective and high-strength hydrogels as dye adsorbents from natural polymers: chitosan and cellulose. <i>Polymer Chemistry</i> , 2017 , 8, 2913-2921	4.9	119
54	Controllable immobilization of naringinase on electrospun cellulose acetate nanofibers and their application to juice debittering. <i>International Journal of Biological Macromolecules</i> , 2017 , 98, 630-636	7.9	44
53	Incorporation of lysozyme-rectorite composites into chitosan films for antibacterial properties enhancement. <i>International Journal of Biological Macromolecules</i> , 2017 , 102, 789-795	7.9	29
52	Construction of horizontal stratum landform-like composite foams and their methyl orange adsorption capacity. <i>Applied Surface Science</i> , 2017 , 397, 133-143	6.7	63
51	Rectonite-intercalated nanoparticles for improving controlled release of doxorubicin hydrochloride. <i>International Journal of Biological Macromolecules</i> , 2017 , 101, 815-822	7.9	15
50	Remote controlled drug release from multi-functional FeO/GO/Chitosan microspheres fabricated by an electro spray method. <i>Colloids and Surfaces B: Biointerfaces</i> , 2017 , 151, 354-362	6	30
49	Presence of nano-sized chitosan-layered silicate composites protects against toxicity induced by lead ions. <i>Carbohydrate Polymers</i> , 2017 , 158, 1-10	10.3	5
48	Facile preparation of magnetic metal organic frameworks core-shell nanoparticles for stimuli-responsive drug carrier. <i>Nanotechnology</i> , 2017 , 28, 495601	3.4	12

47	Efficient incorporation of diverse components into metal organic frameworks via metal phenolic networks. <i>Chemical Communications</i> , 2017 , 53, 10831-10834	5.8	13
46	Electrodeposition to construct free-standing chitosan/layered double hydroxides hydro-membrane for electrically triggered protein release. <i>Colloids and Surfaces B: Biointerfaces</i> , 2017 , 158, 474-479	6	13
45	Flexible Polysaccharide Hydrogel with pH-Regulated Recovery of Self-Healing and Mechanical Properties. <i>Macromolecular Materials and Engineering</i> , 2017 , 302, 1700221	3.9	38
44	Recyclable <i>Saccharomyces cerevisiae</i> loaded nanofibrous mats with sandwich structure constructing via bio-electrospraying for heavy metal removal. <i>Journal of Hazardous Materials</i> , 2017 , 324, 365-372	12.8	88
43	Pore volume and distribution regulation of highly nanoporous titanium dioxide nanofibers and their photovoltaic properties. <i>Journal of Colloid and Interface Science</i> , 2017 , 490, 74-83	9.3	13
42	Production of thick uniform-coating films containing rectorite on nanofibers through the use of an automated coating machine. <i>Colloids and Surfaces B: Biointerfaces</i> , 2017 , 149, 271-279	6	21
41	Chitosan-rectorite nanospheres immobilized on polystyrene fibrous mats via alternate electrospinning/electrospraying techniques for copper ions adsorption. <i>Applied Surface Science</i> , 2017 , 426, 545-553	6.7	36
40	Pectin based composite nanofabrics incorporated with layered silicate and their cytotoxicity. <i>International Journal of Biological Macromolecules</i> , 2016 , 93, 123-130	7.9	12
39	Fusing Sensor Paradigms to Acquire Chemical Information: An Integrative Role for Smart Biopolymeric Hydrogels. <i>Advanced Healthcare Materials</i> , 2016 , 5, 2595-2616	10.1	15
38	Electro-molecular Assembly: Electrical Writing of Information into an Erasable Polysaccharide Medium. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 19780-6	9.5	36
37	Spherical and rodlike inorganic nanoparticle regulated the orientation of carbon nanotubes in polymer nanofibers. <i>Chemical Physics Letters</i> , 2016 , 650, 82-87	2.5	17
36	Antimicrobial application of nanofibrous mats self-assembled with chitosan and epigallocatechin gallate. <i>Colloids and Surfaces B: Biointerfaces</i> , 2016 , 145, 643-652	6	39
35	Chitosan to Connect Biology to Electronics: Fabricating the Bio-Device Interface and Communicating Across This Interface. <i>Polymers</i> , 2015 , 7, 1-46	4.5	74
34	Antimicrobial activity and cytotoxicity of nanofibrous mats immobilized with polysaccharides-rectorite based nanogels. <i>Colloids and Surfaces B: Biointerfaces</i> , 2015 , 133, 370-7	6	8
33	A dynamic and self-crosslinked polysaccharide hydrogel with autonomous self-healing ability. <i>Soft Matter</i> , 2015 , 11, 3971-6	3.6	120
32	Electrochemical deposition to construct a nature inspired multilayer chitosan/layered double hydroxides hybrid gel for stimuli responsive release of protein. <i>Journal of Materials Chemistry B</i> , 2015 , 3, 7577-7584	7.3	28
31	Pectin/lysozyme bilayers layer-by-layer deposited cellulose nanofibrous mats for antibacterial application. <i>Carbohydrate Polymers</i> , 2015 , 117, 687-693	10.3	69
30	Electrochemically induced reversible formation of carboxymethyl chitin hydrogel and tunable protein release. <i>New Journal of Chemistry</i> , 2015 , 39, 1253-1259	3.6	19

29	Layer-by-layer immobilization of quaternized carboxymethyl chitosan/organic rectorite and alginate onto nanofibrous mats and their antibacterial application. <i>Carbohydrate Polymers</i> , 2015 , 121, 428-35	10.3	62
28	A study of chitosan hydrogel with embedded mesoporous silica nanoparticles loaded by ibuprofen as a dual stimuli-responsive drug release system for surface coating of titanium implants. <i>Colloids and Surfaces B: Biointerfaces</i> , 2014 , 123, 657-63	6	82
27	Coding for hydrogel organization through signal guided self-assembly. <i>Soft Matter</i> , 2014 , 10, 465-9	3.6	50
26	Characterization and cytotoxicity study of nanofibrous mats incorporating rectorite and carbon nanotubes. <i>RSC Advances</i> , 2014 , 4, 33355	3.7	33
25	Electrical signal guided click coating of chitosan hydrogel on conductive surface. <i>RSC Advances</i> , 2014 , 4, 13477	3.7	22
24	Emerging chitin and chitosan nanofibrous materials for biomedical applications. <i>Nanoscale</i> , 2014 , 6, 9477-93	9.3	262
23	Compartmentalized multilayer hydrogel formation using a stimulus-responsive self-assembling polysaccharide. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 2948-57	9.5	37
22	Preparation of novel magnetic and fluorescent CS/Fe ₃ O ₄ @CdSeS nanoparticles for simultaneous removal and optical determination of trace copper ions. <i>New Journal of Chemistry</i> , 2014 , 38, 6095-6102	3.6	16
21	Chitin-based fast responsive pH sensitive microspheres for controlled drug release. <i>Carbohydrate Polymers</i> , 2014 , 102, 413-8	10.3	47
20	Removal of Cu ²⁺ from aqueous solution by Chitosan/Rectorite nanocomposite microspheres. <i>Desalination and Water Treatment</i> , 2014 , 52, 5883-5890		4
19	Antibacterial hydrogel coating by electrophoretic co-deposition of chitosan/alkynyl chitosan. <i>Carbohydrate Polymers</i> , 2013 , 98, 1547-52	10.3	57
18	Removal of copper(II) from an aqueous solution with copper(II)-imprinted chitosan microspheres. <i>Journal of Applied Polymer Science</i> , 2013 , 128, 3631-3638	2.9	24
17	High strength films with gas-barrier fabricated from chitin solution dissolved at low temperature. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 1867-1874	13	125
16	Studies on interaction and illumination damage of CS-Fe ₃ O ₄ @ZnS:Mn to bovine serum albumin. <i>Journal of Nanoparticle Research</i> , 2013 , 15, 1	2.3	7
15	Electrodeposition of a biopolymeric hydrogel in track-etched micropores. <i>Soft Matter</i> , 2013 , 9, 2131	3.6	28
14	Electrochemically stimulated drug release from dual stimuli responsive chitin hydrogel. <i>Journal of Materials Chemistry B</i> , 2013 , 1, 1729-1737	7.3	66
13	Protein addressing on patterned microchip by coupling chitosan electrodeposition and electro-click chemistry. <i>Biofabrication</i> , 2013 , 5, 041001	10.5	24
12	Electrical signals guided entrapment and controlled release of antibiotics on titanium surface. <i>Journal of Biomedical Materials Research - Part A</i> , 2013 , 101, 1373-8	5.4	30

11	Facile preparation of robust and biocompatible chitin aerogels. <i>Journal of Materials Chemistry</i> , 2012 , 22, 5801		139
10	Preparation of magnetic and fluorescent bifunctional chitosan nanoparticles for optical determination of copper ion. <i>Mikrochimica Acta</i> , 2012 , 178, 413-419	5.8	31
9	Homogeneous synthesis and characterization of quaternized chitin in NaOH/urea aqueous solution. <i>Carbohydrate Polymers</i> , 2012 , 87, 422-426	10.3	51
8	Cooperative performance of chitin whisker and rectorite fillers on chitosan films. <i>Carbohydrate Polymers</i> , 2011 , 85, 747-752	10.3	44
7	In-Film Bioprocessing and Immunoanalysis with Electroaddressable Stimuli-Responsive Polysaccharides. <i>Advanced Functional Materials</i> , 2010 , 20, 1645-1652	15.6	32
6	Biomimetic Approach to Confer Redox Activity to Thin Chitosan Films. <i>Advanced Functional Materials</i> , 2010 , 20, 2683-2694	15.6	93
5	Electroaddressing of Cell Populations by Co-Deposition with Calcium Alginate Hydrogels. <i>Advanced Functional Materials</i> , 2009 , 19, 2074-2080	15.6	101
4	Reagentless Protein Assembly Triggered by Localized Electrical Signals. <i>Advanced Materials</i> , 2009 , 21, 984-988	24	38
3	Chitosan-coated wires: conferring electrical properties to chitosan fibers. <i>Biomacromolecules</i> , 2009 , 10, 858-64	6.9	42
2	Preparation, characterization and antimicrobial activity of chitosan/layered silicate nanocomposites. <i>Polymer</i> , 2006 , 47, 6738-6744	3.9	164
1	Adsorption of chromium (VI) on a novel quaternized chitosan resin. <i>Journal of Applied Polymer Science</i> , 2003 , 90, 505-510	2.9	35