Xin Chen

List of Publications by Year
in descending order

165 papers	10,180 citations	28242 55 h-index	39638 94 g-index
170 all docs	170 docs citations	170 times ranked	10792 citing authors

#	Article	IF	Citations
1	A review on polymeric hydrogel membranes for wound dressing applications: PVA-based hydrogel dressings. Journal of Advanced Research, 2017, 8, 217-233.	4.4	1,156
2	Crosslinked poly(vinyl alcohol) hydrogels for wound dressing applications: A review of remarkably blended polymers. Arabian Journal of Chemistry, 2015, 8, 1-14.	2.3	496
3	Conformation transition kinetics of regenerated Bombyx mori silk fibroin membrane monitored by time-resolved FTIR spectroscopy. Biophysical Chemistry, 2001, 89, 25-34.	1.5	277
4	Synchrotron FTIR Microspectroscopy of Single Natural Silk Fibers. Biomacromolecules, 2011, 12, 3344-3349.	2.6	243
5	Doxorubicinâ€Loaded Magnetic Silk Fibroin Nanoparticles for Targeted Therapy of Multidrugâ€Resistant Cancer. Advanced Materials, 2014, 26, 7393-7398.	11.1	221
6	Enhancing Mechanical Properties of Silk Fibroin Hydrogel through Restricting the Growth of Î²-Sheet Domains. ACS Applied Materials & Interfaces, 2017, 9, 17489-17498.	4.0	190
7	Silk Fibers Extruded Artificially from Aqueous Solutions of Regenerated <i>Bombyx mori</i> Silk Fibroin are Tougher than their Natural Counterparts. Advanced Materials, 2009, 21, 366-370.	11.1	179
8	Regenerated Bombyx silk solutions studied with rheometry and FTIR. Polymer, 2001, 42, 09969-09974.	1.8	176
9	Conformation transition kinetics of Bombyx mori silk protein. Proteins: Structure, Function and Bioinformatics, 2007, 68, 223-231.	1.5	174
10	Soy protein-based polyethylenimine hydrogel and its high selectivity for copper ion removal in wastewater treatment. Journal of Materials Chemistry A, 2017, 5, 4163-4171.	5.2	162
11	Green Synthesis of Silk Fibroin-Silver Nanoparticle Composites with Effective Antibacterial and Biofilm-Disrupting Properties. Biomacromolecules, 2013, 14, 4483-4488.	2.6	159
12	The preparation of regenerated silk fibroin microspheres. Soft Matter, 2007, 3, 910.	1.2	158
13	Electrical Behavior of a Natural Polyelectrolyte Hydrogel: Chitosan/Carboxymethylcellulose Hydrogel. Biomacromolecules, 2008, 9, 1208-1213.	2.6	156
14	Effect of Metallic Ions on Silk Formation in the Mulberry Silkworm, Bombyx mori. Journal of Physical Chemistry B, 2005, 109, 16937-16945.	1.2	148
15	Directed Growth of Silk Nanofibrils on Graphene and Their Hybrid Nanocomposites. ACS Macro Letters, 2014, 3, 146-152.	2.3	131
16	Wet-Spinning of Regenerated Silk Fiber from Aqueous Silk Fibroin Solution: Discussion of Spinning Parameters. Biomacromolecules, 2010, 11, 1-5.	2.6	126
17	Rheological Characterization ofNephilaSpidroin Solution. Biomacromolecules, 2002, 3, 644-648.	2.6	119
18	Modulating Materials by Orthogonally Oriented Î²â€Strands: Composites of Amyloid and Silk Fibroin Fibrils. Advanced Materials, 2014, 26, 4569-4574.	11.1	119

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19	The natural silk spinning process. FEBS Journal, 2001, 268, 6600-6606.	0.2	116
20	Enhancing the Gelation and Bioactivity of Injectable Silk Fibroin Hydrogel with Laponite Nanoplatelets. ACS Applied Materials & Interfaces, 2016, 8, 9619-9628.	4.0	114
21	Understanding the Mechanical Properties of <i>Antheraea Pernyi</i> Silkâ€"From Primary Structure to Condensed Structure of the Protein. Advanced Functional Materials, 2011, 21, 729-737.	7.8	111
22	Optical Spectroscopy To Investigate the Structure of RegeneratedBombyx moriSilk Fibroin in Solution. Biomacromolecules, 2004, 5, 773-779.	2.6	109
23	Toughness of Spider Silk at High and Low Temperatures. Advanced Materials, 2005, 17, 84-88.	11.1	107
24	Facile fabrication of CuO mesoporous nanosheet cluster array electrodes with super lithium-storage properties. Journal of Materials Chemistry, 2012, 22, 13637.	6.7	107
25	pH sensitivity and ion sensitivity of hydrogels based on complex-forming chitosan/silk fibroin interpenetrating polymer network. Journal of Applied Polymer Science, 1997, 65, 2257-2262.	1.3	104
26	Effect of pH and Copper(II) on the Conformation Transitions of Silk Fibroin Based on EPR, NMR, and Raman Spectroscopy. Biochemistry, 2004, 43, 11932-11941.	1.2	102
27	Conformation transition of silk fibroin induced by blending chitosan. Journal of Polymer Science, Part B: Polymer Physics, 1997, 35, 2293-2296.	2.4	92
28	Conformation Transition in Silk Protein Films Monitored by Time-Resolved Fourier Transform Infrared Spectroscopy:Â Effect of Potassium Ions onNephilaSpidroin Filmsâ€. Biochemistry, 2002, 41, 14944-14950.	1.2	91
29	Two distinct Î²-sheet fibrils from silk protein. Chemical Communications, 2009, , 7506.	2.2	89
30	Electrospinning of reconstituted silk fiber from aqueous silk fibroin solution. Materials Science and Engineering C, 2009, 29, 2270-2274.	3.8	88
31	Strong Collagen Hydrogels by Oxidized Dextran Modification. ACS Sustainable Chemistry and Engineering, 2014, 2, 1318-1324.	3.2	86
32	Poly(vinyl alcohol) Hydrogels with Integrated Toughness, Conductivity, and Freezing Tolerance Based on Ionic Liquid/Water Binary Solvent Systems. ACS Applied Materials & Interfaces, 2021, 13, 29008-29020.	4.0	82
33	Chitosan-based electroactive hydrogel. Polymer, 2008, 49, 5520-5525.	1.8	81
34	Investigation of Rheological Properties and Conformation of Silk Fibroin in the Solution of AmimCl. Biomacromolecules, 2012, 13, 1875-1881.	2.6	80
35	Insight into the Structure of Single Antheraea pernyi Silkworm Fibers Using Synchrotron FTIR Microspectroscopy. Biomacromolecules, 2013, 14, 1885-1892.	2.6	78
36	Biocompatibility of Poly(Îµ-caprolactone) Scaffold Modified by Chitosanâ€"The Fibroblasts Proliferation in vitro. Journal of Biomaterials Applications, 2005, 19, 323-339.	1.2	76

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37	Graphene/silk fibroin based carbon nanocomposites for high performance supercapacitors. Journal of Materials Chemistry A, 2015, 3, 773-781.	5.2	74
38	Preparation and characterization of HY zeolite-filled chitosan membranes for pervaporation separation. Journal of Applied Polymer Science, 2001, 79, 1144-1149.	1.3	73
39	Physically Cross-Linked Silk Fibroin-Based Tough Hydrogel Electrolyte with Exceptional Water Retention and Freezing Tolerance. ACS Applied Materials & Interfaces, 2020, 12, 25353-25362.	4.0	73
40	Robust Protein Hydrogels from Silkworm Silk. ACS Sustainable Chemistry and Engineering, 2016, 4, 1500-1506.	3.2	71
41	Study on biodegradable polymer materials based on poly(lactic acid). I. Chain extending of low molecular weight poly(lactic acid) with methylenediphenyl diisocyanate. Journal of Applied Polymer Science, 1999, 74, 2546-2551.	1.3	70
42	Paclitaxelâ€loaded silk fibroin nanospheres. Journal of Biomedical Materials Research - Part A, 2012, 100A, 203-210.	2.1	69
43	Separation properties of alcohol-water mixture through silicalite-I-filled silicone rubber membranes by pervaporation. Journal of Applied Polymer Science, 1998, 67, 629-636.	1.3	69
44	The spinning processes for spider silk. Soft Matter, 2006, 2, 448.	1.2	68
45	Protein adsorption and separation with chitosan-based amphoteric membranes. Polymer, 2009, 50, 1257-1263.	1.8	67
46	Macroporous chitosan/carboxymethylcellulose blend membranes and their application for lysozyme adsorption. Journal of Applied Polymer Science, 2005, 96, 1267-1274.	1.3	66
47	Î²-turn formation during the conformation transition in silk fibroin. Soft Matter, 2009, 5, 2777.	1.2	65
48	Preparation and characterization of transparent silk fibroin/cellulose blend films. Polymer, 2013, 54, 5035-5042.	1.8	64
49	Plant Protein-Directed Synthesis of Luminescent Gold Nanocluster Hybrids for Tumor Imaging. ACS Applied Materials & Interfaces, 2018, 10, 83-90.	4.0	64
50	FTIR imaging, a useful method for studying the compatibility of silk fibroin-based polymer blends. Polymer Chemistry, 2013, 4, 5401.	1.9	63
51	Exploration of the tight structuralâ€“mechanical relationship in mulberry and non-mulberry silkworm silks. Journal of Materials Chemistry B, 2016, 4, 4337-4347.	2.9	62
52	Silk fibroin modified porous poly(Îµ-caprolactone) scaffold for human fibroblast culture in vitro. Journal of Materials Science: Materials in Medicine, 2004, 15, 671-677.	1.7	61
53	Insights into Silk Formation Process: Correlation of Mechanical Properties and Structural Evolution during Artificial Spinning of Silk Fibers. ACS Biomaterials Science and Engineering, 2016, 2, 1992-2000.	2.6	61
54	Thixotropic silk nanofibril-based hydrogel with extracellular matrix-like structure. Biomaterials Science, 2014, 2, 1338-1342.	2.6	59

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55	Tough proteinâ€"carbon nanotube hybrid fibers comparable to natural spider silks. Journal of Materials Chemistry B, 2015, 3, 3940-3947.	2.9	59
56	Copper in the silk formation process ofBombyx morisilkworm. FEBS Letters, 2003, 554, 337-341.	1.3	57
57	The effect of water on the conformation transition of Bombyx mori silk fibroin. Vibrational Spectroscopy, 2009, 51, 105-109.	1.2	57
58	An antimicrobial film by embedding in situ synthesized silver nanoparticles in soy protein isolate. Materials Letters, 2013, 95, 142-144.	1.3	57
59	Protein Biomineralized Nanoporous Inorganic Mesocrystals with Tunable Hierarchical Nanostructures. Journal of the American Chemical Society, 2014, 136, 15781-15786.	6.6	55
60	Design of injectable agar-based composite hydrogel for multi-mode tumor therapy. Carbohydrate Polymers, 2018, 180, 112-121.	5.1	52
61	Synthesis and Characterization of Multiblock Copolymers Based on Spider Dragline Silk Proteins. Biomacromolecules, 2006, 7, 2415-2419.	2.6	50
62	Injectable thixotropic hydrogel comprising regenerated silk fibroin and hydroxypropylcellulose. Soft Matter, 2012, 8, 2875.	1.2	50
63	Preparation and characterization of chitosan/Cu(II) affinity membrane for urea adsorption. Journal of Applied Polymer Science, 2003, 90, 1108-1112.	1.3	49
64	Natural Electroactive Hydrogel from Soy Protein Isolation. Biomacromolecules, 2010, 11, 3638-3643.	2.6	48
65	Robust soy protein films obtained by slight chemical modification of polypeptide chains. Polymer Chemistry, 2013, 4, 5425.	1.9	48
66	Intelligent Janus nanoparticles for intracellular real-time monitoring of dual drug release. Nanoscale, 2016, 8, 6754-6760.	2.8	47
67	Thermal and crystalline behaviour of silk fiborin/nylon 66 blend films. Polymer, 2004, 45, 7705-7710.	1.8	45
68	Intelligent Silk Fibroin Ionotronic Skin for Temperature Sensing. Advanced Materials Technologies, 2020, 5, 2000430.	3.0	45
69	Separation of alcohol-water mixture by pervaporation through a novel natural polymer blend membrane-chitosan/silk fibroin blend membrane. Journal of Applied Polymer Science, 1999, 73, 975-980.	1.3	44
70	Self-assembly of a peptide amphiphile based on hydrolysed Bombyx mori silk fibroin. Chemical Communications, 2011, 47, 10296.	2.2	44
71	Ultrafast and reversible thermochromism of a conjugated polymer material based on the assembly of peptide amphiphiles. Chemical Science, 2014, 5, 4189-4195.	3.7	44
72	Bandgap Engineered Polypyrroleâ€"Polydopamine Hybrid with Intrinsic Raman and Photoacoustic Imaging Contrasts. Nano Letters, 2018, 18, 7485-7493.	4.5	44

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73	Fabrication of Air-Stable and Conductive Silk Fibroin Gels. ACS Applied Materials & Interfaces, 2018, 10, 38466-38475.	4.0	43
74	The preparation of high performance silk fiber/fibroin composite. Polymer, 2010, 51, 4843-4849.	1.8	42
75	Artificial ligament made from silk protein/Laponite hybrid fibers. Acta Biomaterialia, 2020, 106, 102-113.	4.1	41
76	Formation kinetics and fractal characteristics of regenerated silk fibroin alcogel developed from nanofibrillar network. Soft Matter, 2010, 6, 1217.	1.2	39
77	Water-Resistant Zein-Based Adhesives. ACS Sustainable Chemistry and Engineering, 2020, 8, 7668-7679.	3.2	39
78	Synergistic interactions during thermosensitive chitosan-Î²-glycerophosphate hydrogel formation. RSC Advances, 2011, 1, 282.	1.7	38
79	Hematite nanostructures synthesized by a silk fibroin-assisted hydrothermal method. Journal of Materials Chemistry B, 2013, 1, 213-220.	2.9	38
80	A highly stretchable and anti-freezing silk-based conductive hydrogel for application as a self-adhesive and transparent ionotronic skin. Journal of Materials Chemistry C, 0, , .	2.7	38
81	Understanding Secondary Structures of Silk Materials via Micro- and Nano-Infrared Spectroscopies. ACS Biomaterials Science and Engineering, 2019, 5, 3161-3183.	2.6	37
82	Further Investigation on Potassium-Induced Conformation Transition ofNephilaSpidroin Film with Two-Dimensional Infrared Correlation Spectroscopy. Biomacromolecules, 2005, 6, 302-308.	2.6	36
83	Synthesis of hierarchical three-dimensional copper oxide nanostructures through a biomineralization-inspired approach. Nanoscale, 2013, 5, 7991.	2.8	36
84	Silk-based pressure/temperature sensing bimodal ionotronic skin with stimulus discriminability and low temperature workability. Chemical Engineering Journal, 2021, 422, 130091.	6.6	36
85	Correlation between structural and dynamic mechanical transitions of regenerated silk fibroin. Polymer, 2010, 51, 6278-6283.	1.8	35
86	Floxuridine-loaded silk fibroin nanospheres. RSC Advances, 2014, 4, 18171-18177.	1.7	35
87	Crystallization of Calcium Carbonate on Chitosan Substrates in the Presence of Regenerated Silk Fibroin. Langmuir, 2011, 27, 2804-2810.	1.6	34
88	Synthesis and Solid-State Secondary Structure Investigation of Silkâˆ'Proteinlike Multiblock Polymers. Macromolecules, 2003, 36, 7508-7512.	2.2	33
89	X-ray photoelectron spectroscopic and Raman analysis of silk fibroinâ€"Cu(II) films. Biopolymers, 2006, 82, 144-151.	1.2	33
90	Conformation Transition of <i>Bombyx mori</i> Silk Protein Monitored by Time-Dependent Fourier Transform Infrared (FT-IR) Spectroscopy: Effect of Organic Solvent. Applied Spectroscopy, 2012, 66, 696-699.	1.2	32

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91	Conformation transition kinetics and spinnability of regenerated silk fibroin with glycol, glycerol and polyethylene glycol. Materials Letters, 2012, 81, 13-15.	1.3	32
92	Radiologic and histologic characterization of silk fibroin as scaffold coating for rabbit tracheal defect repair. Otolaryngology - Head and Neck Surgery, 2008, 139, 256-261.	1.1	31
93	Structure and properties of various hybrids fabricated by silk nanofibrils and nanohydroxyapatite. Nanoscale, 2016, 8, 20096-20102.	2.8	31
94	A facile fabrication of silk/MoS2 hybrids for Photothermal therapy. Materials Science and Engineering C, 2017, 79, 123-129.	3.8	31
95	Facile fabrication of the porous three-dimensional regenerated silk fibroin scaffolds. Materials Science and Engineering C, 2013, 33, 3522-3529.	3.8	30
96	Immobilization of glucose oxidase with the blend of regenerated silk fibroin and poly(vinyl alcohol) and its application to a 1,1â€²- dimethylferrocene-mediating glucose sensor. Applied Biochemistry and Biotechnology, 1997, 62, 105-117.	1.4	29
97	Preparation and characterization of antibacterial poly(lactic acid) nanocomposites with N-halamine modified silica. International Journal of Biological Macromolecules, 2020, 155, 1468-1477.	3.6	29
98	Biomimetic Synthesis of Silica with Chitosanâ€Mediated Morphology. Small, 2008, 4, 755-758.	5.2	28
99	Templating effect of silk fibers in the oriented deposition of aragonite. Chemical Communications, 2008, , 5511.	2.2	28
100	Structural determination of protein-based polymer blends with a promising tool: combination of FTIR and STXM spectroscopic imaging. Physical Chemistry Chemical Physics, 2014, 16, 7741-7748.	1.3	28
101	Size-controllable dual drug-loaded silk fibroin nanospheres through a facile formation process. Journal of Materials Chemistry B, 2018, 6, 1179-1186.	2.9	28
102	The regenerated silk fibroin hydrogel with designed architecture bioprinted by its microhydrogel. Journal of Materials Chemistry B, 2019, 7, 4328-4337.	2.9	28
103	A hierarchical adsorption material by incorporating mesoporous carbon into macroporous chitosan membranes. Journal of Materials Chemistry, 2012, 22, 11908.	6.7	27
104	A pilot study of macrophage responses to silk fibroin particles. Journal of Biomedical Materials Research - Part A, 2013, 101A, 1511-1517.	2.1	27
105	A Robust, Resilient, and Multi-Functional Soy Protein-Based Hydrogel. ACS Sustainable Chemistry and Engineering, 2018, 6, 13730-13738.	3.2	27
106	Silk fibroin immobilization on poly(ethylene terephthalate) films: Comparison of two surface modification methods and their effect on mesenchymal stem cells culture. Materials Science and Engineering C, 2013, 33, 1409-1416.	3.8	26
107	Soy protein-directed one-pot synthesis of gold nanomaterials and their functional conductive devices. Journal of Materials Chemistry B, 2016, 4, 3643-3650.	2.9	25
108	Solâ€"Gel Transition of Regenerated Silk Fibroins in Ionic Liquid/Water Mixtures. ACS Biomaterials Science and Engineering, 2016, 2, 12-18.	2.6	25

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109	Morphology and Properties of a New Biodegradable Material Prepared from Zein and Poly(butylene) Tj ETQq1 1 0.784314 rgBT /Overlo	1.6	25
110	Fabrication of an alternative regenerated silk fibroin nanofiber and carbonated hydroxyapatite multilayered composite via layer-by-layer. Journal of Materials Science, 2013, 48, 150-155.	1.7	24
111	Understanding the Mechanical Properties and Structure Transition of Antheraea pernyi Silk Fiber Induced by Its Contraction. Biomacromolecules, 2018, 19, 1999-2006.	2.6	24
112	Silk-based hybrid microfibrous mats as guided bone regeneration membranes. Journal of Materials Chemistry B, 2021, 9, 2025-2032.	2.9	24
113	Protein adsorption and separation on amphoteric chitosan/carboxymethylcellulose membranes. Journal of Biomedical Materials Research - Part A, 2008, 86A, 694-700.	2.1	23
114	Biocompatibility of poly (3-hydroxybutyrate-co-3-hydroxyhexanoate) modified by silk fibroin. Journal of Materials Science: Materials in Medicine, 2006, 17, 749-758.	1.7	22
115	Selective chemical modification of soy protein for a tough and applicable plant protein-based material. Journal of Materials Chemistry B, 2015, 3, 5241-5248.	2.9	22
116	Colorless Silk/Copper Sulfide Hybrid Fiber and Fabric with Spontaneous Heating Property under Sunlight. Biomacromolecules, 2020, 21, 1596-1603.	2.6	22
117	Kinetics of thermally-induced conformational transitions in soybean protein films. Polymer, 2010, 51, 2410-2416.	1.8	21
118	Wet-spinning of regenerated silk fiber from aqueous silk fibroin solutions: Influence of calcium ion addition in spinning dope on the performance of regenerated silk fiber. Chinese Journal of Polymer Science (English Edition), 2014, 32, 29-34.	2.0	21
119	Tamoxifen-loaded silk fibroin electrospun fibers. Materials Letters, 2016, 178, 31-34.	1.3	21
120	Pea Protein/Gold Nanocluster/Indocyanine Green Ternary Hybrid for Near-Infrared Fluorescence/Computed Tomography Dual-Modal Imaging and Synergistic Photodynamic/Photothermal Therapy. ACS Biomaterials Science and Engineering, 2019, 5, 4799-4807.	2.6	21
121	Dual-loaded, long-term sustained drug releasing and thixotropic hydrogel for localized chemotherapy of cancer. Biomaterials Science, 2019, 7, 2975-2985.	2.6	21
122	Cryogenic toughness of natural silk and a proposed structureâ€"function relationship. Materials Chemistry Frontiers, 2019, 3, 2507-2513.	3.2	21
123	Near-Infrared Characterization on the Secondary Structure of RegeneratedBombyx MoriSilk Fibroin. Applied Spectroscopy, 2006, 60, 1438-1441.	1.2	20
124	A Recycling-Free Nanocatalyst System: The Stabilization of In Situ-Reduced Noble Metal Nanoparticles on Silicone Nanofilaments via a Mussel-Inspired Approach. ACS Catalysis, 2017, 7, 2412-2418.	5.5	19
125	Precise correlation of macroscopic mechanical properties and microscopic structures of animal silksâ€"using Antheraea pernyi silkworm silk as an example. Journal of Materials Chemistry B, 2017, 5, 6042-6048.	2.9	19
126	Influence of photoinitiator concentration and irradiation time on the crosslinking performance of visible-light activated pullulan-HEMA hydrogels. International Journal of Biological Macromolecules, 2018, 120, 1884-1892.	3.6	19

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127	Direct Observation of Native Silk Fibroin Conformation in Silk Gland of <i>Bombyx mori</i> Silkworm. ACS Biomaterials Science and Engineering, 2020, 6, 1874-1879.	2.6	19
128	A kinetic model for thermal degradation in polymers with specific application to proteins. Polymer, 2009, 50, 1814-1818.	1.8	18
129	Chitosan-based membrane chromatography for protein adsorption and separation. Materials Science and Engineering C, 2012, 32, 1669-1673.	3.8	18
130	Influence of degree of substitution and folic acid coinitiator on pullulan-HEMA hydrogel properties crosslinked under visible-light initiating system. International Journal of Biological Macromolecules, 2018, 116, 1175-1185.	3.6	18
131	Preparing 3D-printable silk fibroin hydrogels with robustness by a two-step crosslinking method. RSC Advances, 2020, 10, 27225-27234.	1.7	18
132	Determination of phase behaviour in all protein blend materials with multivariate FTIR imaging technique. Journal of Materials Chemistry B, 2015, 3, 834-839.	2.9	17
133	One-step synthesis of soy protein/graphene nanocomposites and their application in photothermal therapy. Materials Science and Engineering C, 2016, 68, 798-804.	3.8	17
134	Berberine coated biocomposite hemostatic film based alginate as absorbable biomaterial for wound healing. International Journal of Biological Macromolecules, 2022, 209, 1731-1744.	3.6	17
135	Synthesis of novel multi-hydroxyl <i>N</i>-halamine precursors based on barbituric acid and their applications in antibacterial poly(ethylene terephthalate) (PET) materials. Journal of Materials Chemistry B, 2020, 8, 8695-8701.	2.9	16
136	Morphology and mechanical properties of soy protein scaffolds made by directional freezing. Journal of Applied Polymer Science, 2010, 118, 1658-1665.	1.3	15
137	Facile Dissolution of Zein Using a Common Solvent Dimethyl Sulfoxide. Langmuir, 2019, 35, 6640-6649.	1.6	15
138	Formation of different gold nanostructures by silk nanofibrils. Materials Science and Engineering C, 2016, 64, 376-382.	3.8	14
139	Silk microfibrous mats with long-lasting antimicrobial function. Journal of Materials Science and Technology, 2021, 63, 203-209.	5.6	14
140	Exploration of the nature of a unique natural polymer-based thermosensitive hydrogel. Soft Matter, 2016, 12, 492-499.	1.2	13
141	Efficacy of silk fibroin–nano silver against Staphylococcus aureus biofilms in a rabbit model of sinusitis. International Journal of Nanomedicine, 2017, Volume 12, 2933-2939.	3.3	12
142	Silk Fibroin Acts as a Self-Emulsifier to Prepare Hierarchically Porous Silk Fibroin Scaffolds through Emulsionâ€“Ice Dual Templates. ACS Omega, 2018, 3, 3396-3405.	1.6	12
143	Environmentally responsive composite films fabricated using silk nanofibrils and silver nanowires. Journal of Materials Chemistry C, 2018, 6, 12940-12947.	2.7	12
144	Application of far-infrared spectroscopy to the structural identification of protein materials. Physical Chemistry Chemical Physics, 2018, 20, 11643-11648.	1.3	11

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145	Effect of stress on the molecular structure and mechanical properties of supercontracted spider dragline silks. Journal of Materials Chemistry B, 2020, 8, 168-176.	2.9	11
146	Animal protein-plant protein composite nanospheres for dual-drug loading and synergistic cancer therapy. Journal of Materials Chemistry B, 2022, 10, 3798-3807.	2.9	11
147	The Al³⁺Sensitivity of Chitosan-Silk Fibroin Complex Membrane on Swelling and Its Application on Chemical Valve for the Separation of Isopropanol-Water Mixture. Journal of Macromolecular Science - Pure and Applied Chemistry, 1997, 34, 2451-2460.	1.2	10
148	Investigation on thermallyâ€induced conformation transition of soy protein film with variableâ€temperature FTIR spectroscopy. Journal of Applied Polymer Science, 2012, 124, 2838-2845.	1.3	10
149	Characterization and assembly investigation of a dodecapeptide hydrolyzed from the crystalline domain of Bombyx mori silk fibroin. Polymer Chemistry, 2013, 4, 3005.	1.9	10
150	Construction of a functional silkâ€based biomaterial complex with immortalized chondrocytes <i>in vivo</i>. Journal of Biomedical Materials Research - Part A, 2014, 102, 1071-1078.	2.1	10
151	Microspheres of calcium carbonate composite regulated by sodium polyacrylates with various ways. Journal of Applied Polymer Science, 2009, 114, 3686-3692.	1.3	9
152	Structural Changes in Spider Dragline Silk after Repeated Supercontractionâ€"Stretching Processes. Biomacromolecules, 2020, 21, 5306-5314.	2.6	9
153	Robust Silk Protein Hydrogels Made by a Facile One-Step Method and Their Multiple Applications. ACS Applied Bio Materials, 2022, 5, 3086-3094.	2.3	8
154	Quasi one-dimensional assembly of gold nanoparticles templated by a pH-sensitive peptide amphiphile from silk fibroin. RSC Advances, 2012, 2, 5599.	1.7	7
155	Multi-responsive polyethylene-polyamine/gelatin hydrogel induced by non-covalent interactions. RSC Advances, 2016, 6, 48661-48665.	1.7	7
156	Chondrocytes cultured in silk-based biomaterials maintain function and cell morphology. International Journal of Artificial Organs, 2019, 42, 31-41.	0.7	7
157	PREPARATION OF HIGH MOLECULAR WEIGHT SOY PROTEIN AQUEOUS SOLUTION AND SEPARATION OF ITS MAIN COMPONENTS. Acta Polymerica Sinica, 2010, 010, 250-254.	0.0	6
158	Concentrationâ€dependent conformation transition of regenerated silk fibroin induced by graphene oxide nanosheets incorporation. Journal of Polymer Science, Part B: Polymer Physics, 2019, 57, 1506-1515.	2.4	4
159	Doxorubicin-Loaded Silk Fibroin Nanospheres. Acta Chimica Sinica, 2014, 72, 1164.	0.5	4
160	Enhancement of the Mechanical Properties of Poly(lactic acid)/Epoxidized Soybean Oil Blends by the Addition of 3-Aminophenylboronic Acid. ACS Omega, 2022, 7, 17841-17848.	1.6	4
161	The Silk Textile Embedded in Silk Fibroin Composite: Preparation and Properties. Chinese Journal of Polymer Science (English Edition), 2018, 36, 1043-1046.	2.0	3
162	Application of an ultrasound semi-quantitative assessment in the degradation of silk fibroin scaffolds in vivo. BioMedical Engineering OnLine, 2021, 20, 48.	1.3	2

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163	Crystallization, Mechanical, and Antimicrobial Properties of Diallyl Cyanuric Derivative-Grafted Polypropylene. ACS Omega, 2021, 6, 12794-12800.	1.6	2
164	PREPARATION AND ANTIMICROBIAL PROPERTIES OF PVA/TANNIN BLEND FILMS. Acta Polymerica Sinica, 2012, 012, 125-130.	0.0	2
165	CU(â…¡)-INDUCED CONFORMATION TRANSITION OF REGENERATED SILK FIBROIN IN AQUEOUS SOLUTIONS. Acta Polymerica Sinica, 2009, 009, 1056-1061.	0.0	1