Fanglian Yao

List of Publications by Year
in descending order

91 papers	4,822 citations	87723 38 h-index	102304 66 g-index
94 all docs	94 docs citations	94 times ranked	5675 citing authors

#	Article	IF	Citations
1	Carbon nanotubes reinforced hydrogel as flexible strain sensor with high stretchability and mechanically toughness. Chemical Engineering Journal, 2020, 382, 122832.	6.6	328
2	Carbon Nanotubes/Hydrophobically Associated Hydrogels as Ultrastretchable, Highly Sensitive, Stable Strain, and Pressure Sensors. ACS Applied Materials & Interfaces, 2020, 12, 4944-4953.	4.0	250
3	Injectable Fullerenol/Alginate Hydrogel for Suppression of Oxidative Stress Damage in Brown Adipose-Derived Stem Cells and Cardiac Repair. ACS Nano, 2017, 11, 5474-5488.	7.3	247
4	Modulation of nano-hydroxyapatite size via formation on chitosanâ€“gelatin network film in situ. Biomaterials, 2007, 28, 781-790.	5.7	234
5	Nanocomposite hydrogel-based strain and pressure sensors: a review. Journal of Materials Chemistry A, 2020, 8, 18605-18623.	5.2	230
6	Ultrathin, Strong, and Highly Flexible Ti₃C₂T_{<i>x</i>} MXene/Bacterial Cellulose Composite Films for High-Performance Electromagnetic Interference Shielding. ACS Nano, 2021, 15, 8439-8449.	7.3	178
7	Freezing-Tolerant Supramolecular Organohydrogel with High Toughness, Thermoplasticity, and Healable and Adhesive Properties. ACS Applied Materials & Interfaces, 2019, 11, 21184-21193.	4.0	161
8	A transparent, ultrastretchable and fully recyclable gelatin organohydrogel based electronic sensor with broad operating temperature. Journal of Materials Chemistry A, 2020, 8, 4447-4456.	5.2	152
9	Low-temperature tolerant strain sensors based on triple crosslinked organohydrogels with ultrastretchability. Chemical Engineering Journal, 2021, 404, 126559.	6.6	108
10	Biomimetic multicomponent polysaccharide/nano-hydroxyapatite composites for bone tissue engineering. Carbohydrate Polymers, 2011, 85, 885-894.	5.1	93
11	Development of Electrically Conductive Doubleâ€Network Hydrogels via Oneâ€Step Facile Strategy for Cardiac Tissue Engineering. Advanced Healthcare Materials, 2016, 5, 474-488.	3.9	92
12	In Situ â€œClickableâ€•Zwitterionic Starch-Based Hydrogel for 3D Cell Encapsulation. ACS Applied Materials & Interfaces, 2016, 8, 4442-4455.	4.0	91
13	Zwitterionic-Modified Starch-Based Stealth Micelles for Prolonging Circulation Time and Reducing Macrophage Response. ACS Applied Materials & Interfaces, 2016, 8, 4385-4398.	4.0	86
14	Scalable synthesis of robust and stretchable composite wound dressings by dispersing silver nanowires in continuous bacterial cellulose. Composites Part B: Engineering, 2020, 199, 108259.	5.9	86
15	Thermoresponsive polysaccharide-based composite hydrogel with antibacterial and healing-promoting activities for preventing recurrent adhesion after adhesiolysis. Acta Biomaterialia, 2018, 74, 439-453.	4.1	82
16	High-strength and fibrous capsuleâ€“resistant zwitterionic elastomers. Science Advances, 2021, 7, .	4.7	82
17	Biodegradable and injectable thermoreversible xyloglucan based hydrogel for prevention of postoperative adhesion. Acta Biomaterialia, 2017, 55, 420-433.	4.1	81
18	Layer-by-Layer Assembled Bacterial Cellulose/Graphene Oxide Hydrogels with Extremely Enhanced Mechanical Properties. Nano-Micro Letters, 2018, 10, 42.	14.4	78

#	ARTICLE	IF	CITATIONS
19	Physical Cross-Linking Starch-Based Zwitterionic Hydrogel Exhibiting Excellent Biocompatibility, Protein Resistance, and Biodegradability. ACS Applied Materials & Interfaces, 2016, 8, 15710-15723.	4.0	77
20	Electrospun PDLLA/PLGA composite membranes for potential application in guided tissue regeneration. Materials Science and Engineering C, 2016, 58, 278-285.	3.8	69
21	Hydroxyapatite Crystal Formation in the Presence of Polysaccharide. Crystal Growth and Design, 2016, 16, 1247-1255.	1.4	68
22	Physically crosslinked poly(vinyl alcohol)â€“carrageenan composite hydrogels: pore structure stability and cell adhesive ability. RSC Advances, 2015, 5, 78180-78191.	1.7	67
23	A thermoresponsive poly(N-vinylcaprolactam-co-sulfobetaine methacrylate) zwitterionic hydrogel exhibiting switchable anti-biofouling and cytocompatibility. Polymer Chemistry, 2015, 6, 3431-3442.	1.9	65
24	Hydrophilic PCU scaffolds prepared by grafting PEGMA and immobilizing gelatin to enhance cell adhesion and proliferation. Materials Science and Engineering C, 2015, 50, 201-209.	3.8	65
25	RoY Peptide-Modified Chitosan-Based Hydrogel to Improve Angiogenesis and Cardiac Repair under Hypoxia. ACS Applied Materials & Interfaces, 2015, 7, 6505-6517.	4.0	62
26	Engineering pectin-based hollow nanocapsules for delivery of anticancer drug. Carbohydrate Polymers, 2017, 177, 86-96.	5.1	62
27	Ionically Conductive Hydrogel with Fast Selfâ€Recovery and Low Residual Strain as Strain and Pressure Sensors. Macromolecular Rapid Communications, 2020, 41, e2000185.	2.0	62
28	A Dualâ€Crosslinked Strategy to Construct Physical Hydrogels with High Strength, Toughness, Good Mechanical Recoverability, and Shapeâ€Memory Ability. Macromolecular Materials and Engineering, 2018, 303, 1700396.	1.7	58
29	Fully physically crosslinked pectin-based hydrogel with high stretchability and toughness for biomedical application. International Journal of Biological Macromolecules, 2020, 149, 707-716.	3.6	56
30	<i>Iota</i>â€carrageenan/chitosan/gelatin scaffold for the osteogenic differentiation of adiposeâ€derived MSCs <i>in vitro</i>. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2015, 103, 1498-1510.	1.6	54
31	Ionic starch-based hydrogels for the prevention of nonspecific protein adsorption. Carbohydrate Polymers, 2015, 117, 384-391.	5.1	54
32	Nonâ€Swelling and Antiâ€Fouling MXene Nanocomposite Hydrogels for Underwater Strain Sensing. Advanced Materials Technologies, 2022, 7, .	3.0	54
33	Step-by-step self-assembly of 2D few-layer reduced graphene oxide into 3D architecture of bacterial cellulose for a robust, ultralight, and recyclable all-carbon absorbent. Carbon, 2018, 139, 824-832.	5.4	53
34	Dual physically cross-linked carboxymethyl cellulose-based hydrogel with high stretchability and toughness as sensitive strain sensors. Cellulose, 2020, 27, 9975-9989.	2.4	53
35	Regulation of the endothelialization by human vascular endothelial cells by ZNF580 gene complexed with biodegradable microparticles. Biomaterials, 2014, 35, 7133-7145.	5.7	51
36	In Situ Clickable Purely Zwitterionic Hydrogel for Peritoneal Adhesion Prevention. Chemistry of Materials, 2020, 32, 6347-6357.	3.2	48

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37	Synthesis and characterization of quaternized carboxymethyl chitosan/poly(amidoamine) dendrimer coreâ€“shell nanoparticles. Materials Science and Engineering C, 2012, 32, 2026-2036.	3.8	41
38	A conductive PEDOT/alginate porous scaffold as a platform to modulate the biological behaviors of brown adipose-derived stem cells. Biomaterials Science, 2020, 8, 3173-3185.	2.6	41
39	Synthesis and Characterization of Chitosan Grafted Oligo(L-lactic acid). Macromolecular Bioscience, 2003, 3, 653-656.	2.1	39
40	Zwitterionic starch-based hydrogel for the expansion and â€œstemnessâ€•maintenance of brown adipose derived stem cells. Biomaterials, 2018, 157, 149-160.	5.7	39
41	A starch-based zwitterionic hydrogel coating for blood-contacting devices with durability and bio-functionality. Chemical Engineering Journal, 2021, 421, 129702.	6.6	36
42	B,N-Co-doped graphene quantum dots as fluorescence sensor for detection of Hg²⁺ and F^{âˆ’} ions. Analytical Methods, 2019, 11, 1879-1883.	1.3	35
43	Fully-physically crosslinked silk fibroin/poly(hydroxyethyl acrylamide) hydrogel with high transparency and adhesive properties for wireless sensing and low-temperature strain sensing. Journal of Materials Chemistry C, 2021, 9, 1880-1887.	2.7	34
44	Rational design of injectable conducting polymer-based hydrogels for tissue engineering. Acta Biomaterialia, 2022, 139, 4-21.	4.1	33
45	Antibacterial action mode of quaternized carboxymethyl chitosan/poly(amidoamine) dendrimer coreâ€“shell nanoparticles against Escherichia coli correlated with molecular chain conformation. Materials Science and Engineering C, 2015, 48, 220-227.	3.8	32
46	An anti-oxidative and conductive composite scaffold for cardiac tissue engineering. Composites Part B: Engineering, 2020, 199, 108285.	5.9	32
47	Stable and pH-responsive polyamidoamine based unimolecular micelles capped with a zwitterionic polymer shell for anticancer drug delivery. RSC Advances, 2016, 6, 17728-17739.	1.7	31
48	Hybrid pectinâ€“Fe³⁺/polyacrylamide double network hydrogels with excellent strength, high stiffness, superior toughness and notch-insensitivity. Soft Matter, 2017, 13, 9237-9245.	1.2	31
49	Fast self-healing zwitterion nanocomposite hydrogel for underwater sensing. Composites Communications, 2021, 26, 100784.	3.3	31
50	Effect of highly dispersed graphene and graphene oxide in 3D nanofibrous bacterial cellulose scaffold on cell responses: A comparative study. Materials Chemistry and Physics, 2019, 235, 121774.	2.0	30
51	Laser-induced wettability gradient surface on NiTi alloy for improved hemocompatibility and flow resistance. Materials Science and Engineering C, 2020, 111, 110847.	3.8	30
52	Establishment of a Physical Model for Solute Diffusion in Hydrogel: Understanding the Diffusion of Proteins in Poly(sulfobetaine methacrylate) Hydrogel. Journal of Physical Chemistry B, 2017, 121, 800-814.	1.2	29
53	Constructing three-dimensional nanofibrous bioglass/gelatin nanocomposite scaffold for enhanced mechanical and biological performance. Chemical Engineering Journal, 2017, 326, 210-221.	6.6	27
54	Engineering Polyzwitterion and Polydopamine Decorated Doxorubicin-Loaded Mesoporous Silica Nanoparticles as a pH-Sensitive Drug Delivery. Polymers, 2018, 10, 326.	2.0	26

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55	Poly(lactic acid)/poly(ethylene glycol) block copolymer based shell or core cross-linked micelles for controlled release of hydrophobic drug. RSC Advances, 2015, 5, 19484-19492.	1.7	24
56	Preparation of graphene quantum dots with high quantum yield by a facile one-step method and applications for cell imaging. Materials Letters, 2020, 271, 127806.	1.3	24
57	Facile preparation of a thermosensitive and antibiofouling physically crosslinked hydrogel/powder for wound healing. Journal of Materials Chemistry B, 2022, 10, 2215-2229.	2.9	24
58	Incorporation of hydroxyapatite into nanofibrous PLGA scaffold towards improved breast cancer cell behavior. Materials Chemistry and Physics, 2019, 226, 177-183.	2.0	23
59	Zwitterionic Unimolecular Micelles with pH and Temperature Response: Enhanced <i>In Vivo</i> Circulation Stability and Tumor Therapeutic Efficiency. Langmuir, 2020, 36, 3356-3366.	1.6	23
60	Simultaneous engineering of nanofillers and patterned surface macropores of graphene/hydroxyapatite/polyetheretherketone ternary composites for potential bone implants. Materials Science and Engineering C, 2021, 123, 111967.	3.8	22
61	Synthesis and characterization of multiblock copolymers based onL-lactic acid, citric acid, and poly(ethylene glycol). Journal of Polymer Science Part A, 2003, 41, 2073-2081.	2.5	20
62	Synthesis and characterization of dendritic star-shaped zwitterionic polymers as novel anticancer drug delivery carriers. Journal of Biomaterials Science, Polymer Edition, 2014, 25, 1641-1657.	1.9	18
63	Preparation and properties of fewâ€layer graphene modified waterborne epoxy coatings. Journal of Applied Polymer Science, 2018, 135, 46743.	1.3	18
64	A novel amphoteric, pH-sensitive, biodegradable poly[chitosan-g-(L-lactic-co-citric) acid] hydrogel. Journal of Applied Polymer Science, 2003, 89, 3850-3854.	1.3	17
65	Interpenetrated nano- and submicro-fibrous biomimetic scaffolds towards enhanced mechanical and biological performances. Materials Science and Engineering C, 2020, 108, 110416.	3.8	17
66	Antifreeze proteins and their biomimetics for cell cryopreservation: Mechanism, function and application-A review. International Journal of Biological Macromolecules, 2021, 192, 1276-1291.	3.6	16
67	A robust polyacrylic acid/chitosan cryogel for rapid hemostasis. Science China Technological Sciences, 2022, 65, 1029-1042.	2.0	16
68	Submicrofiberâ€Incorporated 3D Bacterial Cellulose Nanofibrous Scaffolds with Enhanced Cell Performance. Macromolecular Materials and Engineering, 2018, 303, 1800316.	1.7	15
69	Fabrication of Robust, Shape Recoverable, Macroporous Bacterial Cellulose Scaffolds for Cartilage Tissue Engineering. Macromolecular Bioscience, 2021, 21, e2100167.	2.1	15
70	Wrapping mesoporous Fe2O3 nanoparticles by reduced graphene oxide: Enhancement of cycling stability and capacity of lithium ion batteries by mesoscopic engineering. Ceramics International, 2018, 44, 20656-20663.	2.3	14
71	Antibacterial and UVâ€Blocking Bioelectronics Based on Transparent, Adhesive, and Strainâ€Sensitive Multifunctional Hydrogel. Advanced Materials Technologies, 2022, 7, .	3.0	14
72	Preparation and characterization of a VEGF-Fc fusion protein matrix for enhancing HUVEC growth. Biotechnology Letters, 2012, 34, 1765-1771.	1.1	13

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73	Nano-hydroxyapatite formation via co-precipitation with chitosan-g-poly(N-isopropylacrylamide) in coil and globule states for tissue engineering application. Frontiers of Chemical Science and Engineering, 2013, 7, 388-400.	2.3	13
74	Simvastatin-loaded nanotubular mesoporous bioactive glass scaffolds for bone tissue engineering. Microporous and Mesoporous Materials, 2019, 288, 109570.	2.2	13
75	Flexible, robust and washable bacterial cellulose/silver nanowire conductive paper for high-performance electromagnetic interference shielding. Journal of Materials Chemistry A, 2022, 10, 960-968.	5.2	13
76	Biomimetic mineralization of a hydroxyapatite crystal in the presence of a zwitterionic polymer. CrystEngComm, 2018, 20, 2374-2383.	1.3	12
77	Preparation and characterization of protein resistant zwitterionic starches: The effect of substitution degrees. Starch/Staerke, 2015, 67, 920-929.	1.1	10
78	Effect of Graphene Oxide Incorporation into Electrospun Cellulose Acetate Scaffolds on Breast Cancer Cell Culture. Fibers and Polymers, 2019, 20, 1577-1585.	1.1	10
79	Enhanced vascularization of PCL porous scaffolds through VEGF-Fc modification. Journal of Materials Chemistry B, 2018, 6, 4474-4485.	2.9	9
80	Constructing 3D scaffold with 40-nm-diameter hollow mesoporous bioactive glass nanofibers. Materials Letters, 2019, 248, 201-203.	1.3	9
81	A rhBMP-2-loaded three-dimensional mesoporous bioactive glass nanotubular scaffold prepared from bacterial cellulose. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2019, 581, 123838.	2.3	8
82	Improved Removal of Toxic Metal Ions by Incorporating Graphene Oxide into Bacterial Cellulose. Journal of Nanoscience and Nanotechnology, 2020, 20, 719-730.	0.9	8
83	Bioâ€Inspired Antibacterial Hydrogel Adhesives with High Adhesion Strength. Macromolecular Rapid Communications, 2022, 43, .	2.0	7
84	Improved properties of corn fiber-reinforced polylactide composites by incorporating silica nanoparticles at interfaces. Polymers and Polymer Composites, 2020, 28, 170-179.	1.0	6
85	Synthesis of graphene aerogels using cyclohexane and <i>n</i>-butanol as soft templates. RSC Advances, 2020, 10, 14283-14290.	1.7	6
86	Fabrication of a gradient hydrophobic surface with parallel ridges on pyrolytic carbon for artificial heart valves. Colloids and Surfaces B: Biointerfaces, 2021, 205, 111894.	2.5	6
87	Oxygen-generating materials and their biomedical applications: a review. Journal of Materials Science, 2022, 57, 9077-9103.	1.7	6
88	Modification of Natural Rubber Latex by Graft Copolymerization of 2-Ethylhexyl Acrylate and Methacrylic Acid. Transactions of Tianjin University, 2020, 26, 314-323.	3.3	3
89	Rare-earth-catalyzed alternating copolymerization of carbon monoxide with styrene. Journal of Polymer Science Part A, 2002, 40, 642-649.	2.5	2
90	Copolymerization of carbon monoxide and styrene with the Nd(III)-Cu(II) catalyst. Journal of Applied Polymer Science, 2001, 82, 8-13.	1.3	1

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91	Modification of poly(L-lactic acid) with L-lactic acid / citric acid oligomers. E-Polymers, 2006, 6, .	1.3	1