

Xiaodng Cao

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.

87
papers

2,416
citations

28
h-index

46
g-index

95
ext. papers

3,060
ext. citations

7.4
avg, IF

5.35
L-index

#	Paper	IF	Citations
87	High strength HA-PEG/NAGA-Gelma double network hydrogel for annulus fibrosus rupture repair. <i>Smart Materials in Medicine</i> , 2022 , 3, 128-138	12.9	1
86	Loose Pre-Cross-Linking Mediating Cellulose Self-Assembly for 3D Printing Strong and Tough Biomimetic Scaffolds.. <i>Biomacromolecules</i> , 2022 ,	6.9	3
85	Engineered multifunctional nanocomposite hydrogel dressing to promote vascularization and anti-inflammation by sustained releasing of Mg ²⁺ for diabetic wounds. <i>Composites Part B: Engineering</i> , 2022 , 231, 109569	10	7
84	Microgel assembly: Fabrication, characteristics and application in tissue engineering and regenerative medicine. <i>Bioactive Materials</i> , 2022 , 9, 105-119	16.7	12
83	MicroRNA-activated hydrogel scaffold generated by 3D printing accelerates bone regeneration.. <i>Bioactive Materials</i> , 2022 , 10, 1-14	16.7	2
82	A shape memory and antibacterial cryogel with rapid hemostasis for noncompressible hemorrhage and wound healing. <i>Chemical Engineering Journal</i> , 2022 , 428, 131005	14.7	10
81	Dynamic nanocomposite microgel assembly with microporosity, injectability, tissue-adhesion and sustained drug release promotes articular cartilage repair and regeneration. <i>Advanced Healthcare Materials</i> , 2021 , e2102395	10.1	2
80	Solvent Mediating the Self-Assembly of Polysaccharides for 3D Printing Biomimetic Tissue Scaffolds. <i>ACS Nano</i> , 2021 ,	16.7	1
79	Injectable DMEM-induced phenylboronic acid-modified hyaluronic acid self-crosslinking hydrogel for potential applications in tissue repair. <i>Carbohydrate Polymers</i> , 2021 , 258, 117663	10.3	8
78	Bioactive glass activates VEGF paracrine signaling of cardiomyocytes to promote cardiac angiogenesis. <i>Materials Science and Engineering C</i> , 2021 , 124, 112077	8.3	2
77	Tough thermoplastic hydrogels with re-processability and recyclability for strain sensors. <i>Journal of Materials Chemistry B</i> , 2021 , 9, 176-186	7.3	7
76	Engineering topography: effects on nerve cell behaviors and applications in peripheral nerve repair. <i>Journal of Materials Chemistry B</i> , 2021 , 9, 6310-6325	7.3	3
75	IFN- γ /SrBG composite scaffolds promote osteogenesis by sequential regulation of macrophages from M1 to M2. <i>Journal of Materials Chemistry B</i> , 2021 , 9, 1867-1876	7.3	9
74	3D printing of Cu-doped bioactive glass composite scaffolds promotes bone regeneration through activating the HIF-1 α and TNF- α pathway of hUVECs. <i>Biomaterials Science</i> , 2021 , 9, 5519-5532	7.4	10
73	In Situ Formation of Microgel Array Via Patterned Electrospun Nanofibers Promotes 3D Cell Culture and Drug Testing in a Microphysiological System.. <i>ACS Applied Bio Materials</i> , 2021 , 4, 6209-6218	4.1	2
72	Thermoresponsive nanocomposite hydrogels with high mechanical strength and toughness based on a dual crosslinking strategy. <i>Journal of Applied Polymer Science</i> , 2021 , 138, 51509	2.9	1
71	Degradable photothermal bioactive glass composite hydrogel for the sequential treatment of tumor-related bone defects: From anti-tumor to repairing bone defects. <i>Chemical Engineering Journal</i> , 2021 , 419, 129520	14.7	10

70	Facile Fabrication of Hollow Hydrogel Microfiber via 3D Printing-Assisted Microfluidics and Its Application as a Biomimetic Blood Capillary. <i>ACS Biomaterials Science and Engineering</i> , 2021 , 7, 4971-4981	5.5	2
69	3D printed silk-gelatin hydrogel scaffold with different porous structure and cell seeding strategy for cartilage regeneration. <i>Bioactive Materials</i> , 2021 , 6, 3396-3410	16.7	37
68	Engineered macroporous hydrogel scaffolds via pickering emulsions stabilized by MgO nanoparticles promote bone regeneration. <i>Journal of Materials Chemistry B</i> , 2020 , 8, 6100-6114	7.3	7
67	Local delivery of FTY720 in mesoporous bioactive glass improves bone regeneration by synergistically immunomodulating osteogenesis and osteoclastogenesis. <i>Journal of Materials Chemistry B</i> , 2020 , 8, 6148-6158	7.3	10
66	Hierarchical patterning via dynamic sacrificial printing of stimuli-responsive hydrogels. <i>Biofabrication</i> , 2020 , 12, 035007	10.5	10
65	A medical adhesive used in a wet environment by blending tannic acid and silk fibroin. <i>Biomaterials Science</i> , 2020 , 8, 2694-2701	7.4	17
64	Engineering the cellular mechanical microenvironment to regulate stem cell chondrogenesis: Insights from a microgel model. <i>Acta Biomaterialia</i> , 2020 , 113, 393-406	10.8	15
63	Multifunctional Conductive Hydrogel/Thermochromic Elastomer Hybrid Fibers with a Core-Shell Segmental Configuration for Wearable Strain and Temperature Sensors. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 7565-7574	9.5	55
62	Injectable dual cross-linked adhesive hyaluronic acid multifunctional hydrogel scaffolds for potential applications in cartilage repair. <i>Polymer Chemistry</i> , 2020 , 11, 3169-3178	4.9	11
61	Direct current electric field induced gradient hydrogel actuators with rapid thermo-responsive performance as soft manipulators. <i>Journal of Materials Chemistry C</i> , 2020 , 8, 2756-2763	7.1	13
60	Tubular Silk Fibroin/Gelatin-Tyramine Hydrogel with Controllable Layer Structure and Its Potential Application for Tissue Engineering. <i>ACS Biomaterials Science and Engineering</i> , 2020 , 6, 6896-6905	5.5	5
59	Injection and Self-Assembly of Bioinspired Stem Cell-Laden Gelatin/Hyaluronic Acid Hybrid Microgels Promote Cartilage Repair In Vivo. <i>Advanced Functional Materials</i> , 2019 , 29, 1906690	15.6	39
58	Combining 3D sidewall electrodes and contraction/expansion microstructures in microchip promotes isolation of cancer cells from red blood cells. <i>Talanta</i> , 2019 , 196, 546-555	6.2	14
57	Patterning Multi-Nanostructured Poly(L-lactic acid) Fibrous Matrices to Manipulate Biomolecule Distribution and Functions. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 8465-8473	9.5	5
56	Engineered Fe(OH) nanoparticle-coated and rhBMP-2-releasing PLGA microsphere scaffolds for promoting bone regeneration by facilitating cell homing and osteogenic differentiation. <i>Journal of Materials Chemistry B</i> , 2018 , 6, 2831-2842	7.3	10
55	Tannic acid-derived metal-phenolic networks facilitate PCL nanofiber mesh vascularization by promoting the adhesion and spreading of endothelial cells. <i>Journal of Materials Chemistry B</i> , 2018 , 6, 2734-2738	7.3	20
54	Alginate based antimicrobial hydrogels formed by integrating Diels-Alder "click chemistry" and the thiol-ene reaction.. <i>RSC Advances</i> , 2018 , 8, 11036-11042	3.7	28
53	4D Printing of Robust Hydrogels Consisted of Agarose Nanofibers and Polyacrylamide. <i>ACS Macro Letters</i> , 2018 , 7, 442-446	6.6	75

52	Preparation and Properties of 3D Printed Alginate-Chitosan Polyion Complex Hydrogels for Tissue Engineering. <i>Polymers</i> , 2018 , 10,	4.5	70
51	A Hyaluronic Acid Based Injectable Hydrogel Formed via Photo-Crosslinking Reaction and Thermal-Induced Diels-Alder Reaction for Cartilage Tissue Engineering. <i>Polymers</i> , 2018 , 10,	4.5	20
50	Reversibly Reconfigurable Cross-Linking Induces Fusion of Separate Chitosan Hydrogel Films.. <i>ACS Applied Bio Materials</i> , 2018 , 1, 1695-1704	4.1	8
49	Effective Enzyme Coimmobilization and Synergistic Catalysis on Hierarchically Porous Inorganic/Organic Hybrid Microbeads Fabricated Via Droplet-Based Microfluidics. <i>Macromolecular Chemistry and Physics</i> , 2018 , 219, 1800106	2.6	2
48	Mineralization of a superficially porous microsphere scaffold via plasma modification. <i>RSC Advances</i> , 2017 , 7, 3521-3527	3.7	3
47	Reversible Programming of Soft Matter with Reconfigurable Mechanical Properties. <i>Advanced Functional Materials</i> , 2017 , 27, 1605665	15.6	34
46	High-throughput generation of hyaluronic acid microgels via microfluidics-assisted enzymatic crosslinking and/or Diels-Alder click chemistry for cell encapsulation and delivery. <i>Applied Materials Today</i> , 2017 , 9, 49-59	6.6	32
45	A hydrogel actuator with flexible folding deformation and shape programming via using sodium carboxymethyl cellulose and acrylic acid. <i>Carbohydrate Polymers</i> , 2017 , 173, 526-534	10.3	19
44	High strength, biocompatible hydrogels with designable shapes and special hollow-formed character using chitosan and gelatin. <i>Carbohydrate Polymers</i> , 2017 , 168, 147-152	10.3	35
43	Patterning Electrospun Nanofibers via Agarose Hydrogel Stamps to Spatially Coordinate Cell Orientation in Microfluidic Device. <i>Small</i> , 2017 , 13, 1602610	11	20
42	Polymyxin B immobilized on cross-linked cellulose microspheres for endotoxin adsorption. <i>Carbohydrate Polymers</i> , 2016 , 136, 12-8	10.3	29
41	Tough and Cell-Compatible Chitosan Physical Hydrogels for Mouse Bone Mesenchymal Stem Cells in Vitro. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 19739-46	9.5	59
40	miR-29b-Loaded Gold Nanoparticles Targeting to the Endoplasmic Reticulum for Synergistic Promotion of Osteogenic Differentiation. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 19217-27	9.5	48
39	Influence of 3D Microgrooves on C2C12 Cell Proliferation, Migration, Alignment, F-actin Protein Expression and Gene Expression. <i>Journal of Materials Science and Technology</i> , 2016 , 32, 901-908	9.1	12
38	One-step fabrication of inorganic/organic hybrid microspheres with tunable surface texture for controlled drug release application. <i>Journal of Materials Science: Materials in Medicine</i> , 2016 , 27, 7	4.5	19
37	Enhanced osteogenic differentiation and biomineralization in mouse mesenchymal stromal cells on a TiTCP robocast scaffold modified with collagen nanofibers. <i>RSC Advances</i> , 2016 , 6, 23588-23598	3.7	10
36	Reinforced Mechanical Properties and Tunable Biodegradability in Nanoporous Cellulose Gels: Poly(L-lactide-co-caprolactone) Nanocomposites. <i>Biomacromolecules</i> , 2016 , 17, 1506-15	6.9	26
35	3D Bioplotting of Gelatin/Alginate Scaffolds for Tissue Engineering: Influence of Crosslinking Degree and Pore Architecture on Physicochemical Properties. <i>Journal of Materials Science and Technology</i> , 2016 , 32, 889-900	9.1	89

34	Bottom-up topography assembly into 3D porous scaffold to mediate cell activities. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2016 , 104, 1056-63	3.5	6
33	Effect of Mineralized Layer Topographies on Stem Cell Behavior in Microsphere Scaffold. <i>Journal of Materials Science and Technology</i> , 2016 , 32, 971-977	9.1	3
32	Light weight, mechanically strong and biocompatible β -chitin aerogels from different aqueous alkali hydroxide/urea solutions. <i>Science China Chemistry</i> , 2016 , 59, 1405-1414	7.9	22
31	In situ microfluidic fabrication of multi-shape inorganic/organic hybrid particles with controllable surface texture and porous internal structure. <i>RSC Advances</i> , 2015 , 5, 12872-12878	3.7	10
30	Effective Spatial Separation of PC12 and NIH3T3 Cells by the Microgrooved Surface of Biocompatible Polymer Substrates. <i>Langmuir</i> , 2015 , 31, 6797-806	4	16
29	Cellulose nanocrystals reinforced foamed nitrile rubber nanocomposites. <i>Carbohydrate Polymers</i> , 2015 , 130, 149-54	10.3	36
28	Controllable microfluidic fabrication of Janus and microcapsule particles for drug delivery applications. <i>RSC Advances</i> , 2015 , 5, 23181-23188	3.7	61
27	Multifunctional Hydrogel with Good Structure Integrity, Self-Healing, and Tissue-Adhesive Property Formed by Combining Diels-Alder Click Reaction and Acylhydrazone Bond. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 24023-31	9.5	220
26	One-step fabrication of polymeric hybrid particles with core-shell, patchy, patchy Janus and Janus architectures via a microfluidic-assisted phase separation process. <i>RSC Advances</i> , 2015 , 5, 79969-79975	3.7	21
25	Dynamic rheology studies of carboxylated butadiene-styrene rubber/cellulose nanocrystals nanocomposites: Vulcanization process and network structures. <i>Polymer Composites</i> , 2015 , 36, 623-629	3	5
24	Diels-Alder Click-Based Hydrogels for Direct Spatiotemporal Postpatterning via Photoclick Chemistry. <i>ACS Macro Letters</i> , 2015 , 4, 289-292	6.6	30
23	Structure and morphology of fractions separated from mechanical-assisted enzyme hydrolyzed chitin microfibrils. <i>Cellulose</i> , 2015 , 22, 1-8	5.5	12
22	In situ synthesis of robust conductive cellulose/polypyrrole composite aerogels and their potential application in nerve regeneration. <i>Angewandte Chemie - International Edition</i> , 2014 , 53, 5380-4	16.4	166
21	In Situ Synthesis of Robust Conductive Cellulose/Polypyrrole Composite Aerogels and Their Potential Application in Nerve Regeneration. <i>Angewandte Chemie</i> , 2014 , 126, 5484-5488	3.6	14
20	Sustainable carbon quantum dots from forestry and agricultural biomass with amplified photoluminescence by simple NH ₄ OH passivation. <i>Journal of Materials Chemistry C</i> , 2014 , 2, 9760-9766	7.1	72
19	Engineering PLGA doped PCL microspheres with a layered architecture and an island-sea topography. <i>RSC Advances</i> , 2014 , 4, 9031	3.7	8
18	Diels-Alder crosslinked HA/PEG hydrogels with high elasticity and fatigue resistance for cell encapsulation and articular cartilage tissue repair. <i>Polymer Chemistry</i> , 2014 , 5, 5116-5123	4.9	69
17	A mesoporous silicon/poly-(DL-lactic-co-glycolic) acid microsphere for long time anti-tuberculosis drug delivery. <i>International Journal of Pharmaceutics</i> , 2014 , 476, 116-23	6.5	17

16	An injectable hyaluronic acid/PEG hydrogel for cartilage tissue engineering formed by integrating enzymatic crosslinking and Diels-Alder click chemistry. <i>Polymer Chemistry</i> , 2014 , 5, 1082-1090	4.9	119
15	Superficially porous poly(lactic-co-glycolic acid)/calcium carbonate microsphere developed by spontaneous pore-forming method for bone repair. <i>RSC Advances</i> , 2013 , 3, 6871	3.7	15
14	An interpenetrating HA/G/CS biomimic hydrogel via Diels-Alder click chemistry for cartilage tissue engineering. <i>Carbohydrate Polymers</i> , 2013 , 97, 188-95	10.3	78
13	In situ reactive compatibilization and reinforcement of peroxide dynamically vulcanized polypropylene/ethylene-propylene-diene monomer tpv by zinc dimethacrylate. <i>Polymer Composites</i> , 2013 , 34, 1357-1366	3	17
12	Facile development of a hollow composite microsphere with porous surface for cell delivery. <i>Materials Letters</i> , 2013 , 111, 238-241	3.3	10
11	Preparation and properties of carboxylated styrene-butadiene rubber/cellulose nanocrystals composites. <i>Carbohydrate Polymers</i> , 2013 , 92, 69-76	10.3	63
10	New nanocomposite materials reinforced with cellulose nanocrystals in nitrile rubber. <i>Polymer Testing</i> , 2013 , 32, 819-826	4.5	88
9	Facile Preparation of Soy Protein/Poly(vinyl alcohol) Blend Fibers with High Mechanical Performance by Wet-Spinning. <i>Industrial & Engineering Chemistry Research</i> , 2013 , 52, 6177-6181	3.9	19
8	Engineering poly(lactic-co-glycolic acid)/calcium carbonate microspheres with controllable topography and their cell response. <i>Journal of Materials Chemistry B</i> , 2013 , 1, 3322-3329	7.3	20
7	Functionalized polypyrrole film: synthesis, characterization, and potential applications in chemical and biological sensors. <i>ACS Applied Materials & Interfaces</i> , 2009 , 1, 1599-606	9.5	36
6	Structure and Properties of Cellulose Films Coated with Polyurethane/Benzyl Starch Semi-IPN Coating. <i>Industrial & Engineering Chemistry Research</i> , 2006 , 45, 4193-4199	3.9	19
5	Effects of molecular weight on the miscibility and properties of polyurethane/benzyl starch semi-interpenetrating polymer networks. <i>Biomacromolecules</i> , 2005 , 6, 671-7	6.9	39
4	Effects of ethyl and benzyl groups on the miscibility and properties of castor oil-based polyurethane/starch derivative semi-interpenetrating polymer networks. <i>Macromolecular Bioscience</i> , 2005 , 5, 863-71	5.5	7
3	Miscibility and properties of polyurethane/benzyl starch semi-interpenetrating polymer networks. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2005 , 43, 603-615	2.6	16
2	Soy protein isolate/kraft lignin composites compatibilized with methylene diphenyl diisocyanate. <i>Journal of Applied Polymer Science</i> , 2004 , 93, 624-629	2.9	42
1	Structure-properties relationship of starch/waterborne polyurethane composites. <i>Journal of Applied Polymer Science</i> , 2003 , 90, 3325-3332	2.9	36