Xiaoodng Cao

List of Publications by Citations

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	Multifunctional Hydrogel with Good Structure Integrity, Self-Healing, and Tissue-Adhesive Property Formed by Combining Diels-Alder Click Reaction and Acylhydrazone Bond. *ACS Applied Materials & Interfaces*, **2015**, 7, 24023-31	9.5	220
86	In situ synthesis of robust conductive cellulose/polypyrrole composite aerogels and their potential application in nerve regeneration. *Angewandte Chemie - International Edition*, **2014**, 53, 5380-4	16.4	166
85	An injectable hyaluronic acid/PEG hydrogel for cartilage tissue engineering formed by integrating enzymatic crosslinking and Diels?Alder ?lick chemistry?*Polymer Chemistry*, **2014**, 5, 1082-1090	4.9	119
84	3D Bioplotting of Gelatin/Alginate Scaffolds for Tissue Engineering: Influence of Crosslinking Degree and Pore Architecture on Physicochemical Properties. *Journal of Materials Science and Technology*, **2016**, 32, 889-900	9.1	89
83	New nanocomposite materials reinforced with cellulose nanocrystals in nitrile rubber. *Polymer Testing*, **2013**, 32, 819-826	4.5	88
82	An interpenetrating HA/G/CS biomimic hydrogel via Diels-Alder click chemistry for cartilage tissue engineering. *Carbohydrate Polymers*, **2013**, 97, 188-95	10.3	78
81	4D Printing of Robust Hydrogels Consisted of Agarose Nanofibers and Polyacrylamide. *ACS Macro Letters*, **2018**, 7, 442-446	6.6	75
80	Sustainable carbon quantum dots from forestry and agricultural biomass with amplified photoluminescence by simple NH4OH passivation. *Journal of Materials Chemistry C*, **2014**, 2, 9760-9766	7.1	72
79	Preparation and Properties of 3D Printed Alginate?Chitosan Polyion Complex Hydrogels for Tissue Engineering. *Polymers*, **2018**, 10,	4.5	70
78	Diels?Alder crosslinked HA/PEG hydrogels with high elasticity and fatigue resistance for cell encapsulation and articular cartilage tissue repair. *Polymer Chemistry*, **2014**, 5, 5116-5123	4.9	69
77	Preparation and properties of carboxylated styrene-butadiene rubber/cellulose nanocrystals composites. *Carbohydrate Polymers*, **2013**, 92, 69-76	10.3	63
76	Controllable microfluidic fabrication of Janus and microcapsule particles for drug delivery applications. *RSC Advances*, **2015**, 5, 23181-23188	3.7	61
75	Tough and Cell-Compatible Chitosan Physical Hydrogels for Mouse Bone Mesenchymal Stem Cells in Vitro. *ACS Applied Materials & Interfaces*, **2016**, 8, 19739-46	9.5	59
74	Multifunctional Conductive Hydrogel/Thermochromic Elastomer Hybrid Fibers with a Core-Shell Segmental Configuration for Wearable Strain and Temperature Sensors. *ACS Applied Materials & Interfaces*, **2020**, 12, 7565-7574	9.5	55
73	miR-29b-Loaded Gold Nanoparticles Targeting to the Endoplasmic Reticulum for Synergistic Promotion of Osteogenic Differentiation. *ACS Applied Materials & Interfaces*, **2016**, 8, 19217-27	9.5	48
72	Soy protein isolate/kraft lignin composites compatibilized with methylene diphenyl diisocyanate. *Journal of Applied Polymer Science*, **2004**, 93, 624-629	2.9	42
71	Injection and Self-Assembly of Bioinspired Stem Cell-Laden Gelatin/Hyaluronic Acid Hybrid Microgels Promote Cartilage Repair In Vivo. *Advanced Functional Materials*, **2019**, 29, 1906690	15.6	39

70	Effects of molecular weight on the miscibility and properties of polyurethane/benzyl starch semi-interpenetrating polymer networks. *Biomacromolecules*, **2005**, 6, 671-7	6.9	39
69	3D printed silk-gelatin hydrogel scaffold with different porous structure and cell seeding strategy for cartilage regeneration. *Bioactive Materials*, **2021**, 6, 3396-3410	16.7	37
68	Cellulose nanocrystals reinforced foamed nitrile rubber nanocomposites. *Carbohydrate Polymers*, **2015**, 130, 149-54	10.3	36
67	Functionalized polypyrrole film: synthesis, characterization, and potential applications in chemical and biological sensors. *ACS Applied Materials & Interfaces*, **2009**, 1, 1599-606	9.5	36
66	Structure–properties relationship of starch/waterborne polyurethane composites. *Journal of Applied Polymer Science*, **2003**, 90, 3325-3332	2.9	36
65	High strength, biocompatible hydrogels with designable shapes and special hollow-formed character using chitosan and gelatin. *Carbohydrate Polymers*, **2017**, 168, 147-152	10.3	35
64	Reversible Programing of Soft Matter with Reconfigurable Mechanical Properties. *Advanced Functional Materials*, **2017**, 27, 1605665	15.6	34
63	High-throughput generation of hyaluronic acid microgels via microfluidics-assisted enzymatic crosslinking and/or Diels–Alder click chemistry for cell encapsulation and delivery. *Applied Materials Today*, **2017**, 9, 49-59	6.6	32
62	Diels–Alder Click-Based Hydrogels for Direct Spatiotemporal Postpatterning via Photoclick Chemistry. *ACS Macro Letters*, **2015**, 4, 289-292	6.6	30
61	Polymyxin B immobilized on cross-linked cellulose microspheres for endotoxin adsorption. *Carbohydrate Polymers*, **2016**, 136, 12-8	10.3	29
60	Alginate based antimicrobial hydrogels formed by integrating Diels-Alder "click chemistry" and the thiol-ene reaction.. *RSC Advances*, **2018**, 8, 11036-11042	3.7	28
59	Reinforced Mechanical Properties and Tunable Biodegradability in Nanoporous Cellulose Gels: Poly(L-lactide-co-caprolactone) Nanocomposites. *Biomacromolecules*, **2016**, 17, 1506-15	6.9	26
58	Light weight, mechanically strong and biocompatible chitin aerogels from different aqueous alkali hydroxide/urea solutions. *Science China Chemistry*, **2016**, 59, 1405-1414	7.9	22
57	One-step fabrication of polymeric hybrid particles with core–shell, patchy, patchy Janus and Janus architectures via a microfluidic-assisted phase separation process. *RSC Advances*, **2015**, 5, 79969-79975	3.7	21
56	Tannic acid-derived metal-phenolic networks facilitate PCL nanofiber mesh vascularization by promoting the adhesion and spreading of endothelial cells. *Journal of Materials Chemistry B*, **2018**, 6, 2734-2738	7.3	20
55	Patterning Electrospun Nanofibers via Agarose Hydrogel Stamps to Spatially Coordinate Cell Orientation in Microfluidic Device. *Small*, **2017**, 13, 1602610	11	20
54	Engineering poly(lactic-co-glycolic acid)/calcium carbonate microspheres with controllable topography and their cell response. *Journal of Materials Chemistry B*, **2013**, 1, 3322-3329	7.3	20
53	A Hyaluronic Acid Based Injectable Hydrogel Formed via Photo-Crosslinking Reaction and Thermal-Induced Diels-Alder Reaction for Cartilage Tissue Engineering. *Polymers*, **2018**, 10,	4.5	20

52	A hydrogel actuator with flexible folding deformation and shape programming via using sodium carboxymethyl cellulose and acrylic acid. *Carbohydrate Polymers*, **2017**, 173, 526-534	10.3	19
51	One-step fabrication of inorganic/organic hybrid microspheres with tunable surface texture for controlled drug release application. *Journal of Materials Science: Materials in Medicine*, **2016**, 27, 7	4.5	19
50	Facile Preparation of Soy Protein/Poly(vinyl alcohol) Blend Fibers with High Mechanical Performance by Wet-Spinning. *Industrial & Engineering Chemistry Research*, **2013**, 52, 6177-6181	3.9	19
49	Structure and Properties of Cellulose Films Coated with Polyurethane/Benzyl Starch Semi-IPN Coating. *Industrial & Engineering Chemistry Research*, **2006**, 45, 4193-4199	3.9	19
48	A medical adhesive used in a wet environment by blending tannic acid and silk fibroin. *Biomaterials Science*, **2020**, 8, 2694-2701	7.4	17
47	A mesoporous silicon/poly-(DL-lactic-co-glycolic) acid microsphere for long time anti-tuberculosis drug delivery. *International Journal of Pharmaceutics*, **2014**, 476, 116-23	6.5	17
46	In situ reactive compatibilization and reinforcement of peroxide dynamically vulcanized polypropylene/ethylene-propylene-diene monomer tpv by zinc dimethacrylate. *Polymer Composites* , **2013**, 34, 1357-1366	3	17
45	Effective Spatial Separation of PC12 and NIH3T3 Cells by the Microgrooved Surface of Biocompatible Polymer Substrates. *Langmuir*, **2015**, 31, 6797-806	4	16
44	Miscibility and properties of polyurethane/benzyl starch semi-interpenetrating polymer networks. *Journal of Polymer Science, Part B: Polymer Physics*, **2005**, 43, 603-615	2.6	16
43	Engineering the cellular mechanical microenvironment to regulate stem cell chondrogenesis: Insights from a microgel model. *Acta Biomaterialia*, **2020**, 113, 393-406	10.8	15
42	Superficially porous poly(lactic-co-glycolic acid)/calcium carbonate microsphere developed by spontaneous pore-forming method for bone repair. *RSC Advances*, **2013**, 3, 6871	3.7	15
41	In Situ Synthesis of Robust Conductive Cellulose/Polypyrrole Composite Aerogels and Their Potential Application in Nerve Regeneration. *Angewandte Chemie*, **2014**, 126, 5484-5488	3.6	14
40	Combining 3D sidewall electrodes and contraction/expansion microstructures in microchip promotes isolation of cancer cells from red blood cells. *Talanta*, **2019**, 196, 546-555	6.2	14
39	Direct current electric field induced gradient hydrogel actuators with rapid thermo-responsive performance as soft manipulators. *Journal of Materials Chemistry C*, **2020**, 8, 2756-2763	7.1	13
38	Influence of 3D Microgrooves on C2C12 Cell Proliferation, Migration, Alignment, F-actin Protein Expression and Gene Expression. *Journal of Materials Science and Technology*, **2016**, 32, 901-908	9.1	12
37	Structure and morphology of fractions separated from mechanical-assisted enzyme hydrolyzed chitin microfibrils. *Cellulose*, **2015**, 22, 1-8	5.5	12
36	Microgel assembly: Fabrication, characteristics and application in tissue engineering and regenerative medicine. *Bioactive Materials*, **2022**, 9, 105-119	16.7	12
35	Injectable dual cross-linked adhesive hyaluronic acid multifunctional hydrogel scaffolds for potential applications in cartilage repair. *Polymer Chemistry*, **2020**, 11, 3169-3178	4.9	11

34	In situ microfluidic fabrication of multi-shape inorganic/organic hybrid particles with controllable surface texture and porous internal structure. *RSC Advances*, **2015**, 5, 12872-12878	3.7	10
33	Local delivery of FTY720 in mesoporous bioactive glass improves bone regeneration by synergistically immunomodulating osteogenesis and osteoclastogenesis. *Journal of Materials Chemistry B*, **2020**, 8, 6148-6158	7.3	10
32	Hierarchical patterning via dynamic sacrificial printing of stimuli-responsive hydrogels. *Biofabrication*, **2020**, 12, 035007	10.5	10
31	Engineered Fe(OH) nanoparticle-coated and rhBMP-2-releasing PLGA microsphere scaffolds for promoting bone regeneration by facilitating cell homing and osteogenic differentiation. *Journal of Materials Chemistry B*, **2018**, 6, 2831-2842	7.3	10
30	Enhanced osteogenic differentiation and biomineralization in mouse mesenchymal stromal cells on a □TCP robocast scaffold modified with collagen nanofibers. *RSC Advances*, **2016**, 6, 23588-23598	3.7	10
29	Facile development of a hollow composite microsphere with porous surface for cell delivery. *Materials Letters*, **2013**, 111, 238-241	3.3	10
28	3D printing of Cu-doped bioactive glass composite scaffolds promotes bone regeneration through activating the HIF-1□nd TNF-□pathway of hUVECs. *Biomaterials Science*, **2021**, 9, 5519-5532	7.4	10
27	Degradable photothermal bioactive glass composite hydrogel for the sequential treatment of tumor-related bone defects: From anti-tumor to repairing bone defects. *Chemical Engineering Journal*, **2021**, 419, 129520	14.7	10
26	A shape memory and antibacterial cryogel with rapid hemostasis for noncompressible hemorrhage and wound healing. *Chemical Engineering Journal*, **2022**, 428, 131005	14.7	10
25	IFN-□/SrBG composite scaffolds promote osteogenesis by sequential regulation of macrophages from M1 to M2. *Journal of Materials Chemistry B*, **2021**, 9, 1867-1876	7.3	9
24	Engineering PLGA doped PCL microspheres with a layered architecture and an islands□ea topography. *RSC Advances*, **2014**, 4, 9031	3.7	8
23	Injectable DMEM-induced phenylboronic acid-modified hyaluronic acid self-crosslinking hydrogel for potential applications in tissue repair. *Carbohydrate Polymers*, **2021**, 258, 117663	10.3	8
22	Reversibly Reconfigurable Cross-Linking Induces Fusion of Separate Chitosan Hydrogel Films.. *ACS Applied Bio Materials*, **2018**, 1, 1695-1704	4.1	8
21	Engineered macroporous hydrogel scaffolds via pickering emulsions stabilized by MgO nanoparticles promote bone regeneration. *Journal of Materials Chemistry B*, **2020**, 8, 6100-6114	7.3	7
20	Effects of ethyl and benzyl groups on the miscibility and properties of castor oil-based polyurethane/starch derivative semi-interpenetrating polymer networks. *Macromolecular Bioscience*, **2005**, 5, 863-71	5.5	7
19	Engineered multifunctional nanocomposite hydrogel dressing to promote vascularization and anti-inflammation by sustained releasing of Mg2+ for diabetic wounds. *Composites Part B: Engineering*, **2022**, 231, 109569	10	7
18	Tough thermoplastic hydrogels with re-processability and recyclability for strain sensors. *Journal of Materials Chemistry B*, **2021**, 9, 176-186	7.3	7
17	Bottom-up topography assembly into 3D porous scaffold to mediate cell activities. *Journal of Biomedical Materials Research - Part B Applied Biomaterials*, **2016**, 104, 1056-63	3.5	6

16	Dynamic rheology studies of carboxylated butadiene-styrene rubber/cellulose nanocrystals nanocomposites: Vulcanization process and network structures. *Polymer Composites*, **2015**, 36, 623-629	3	5
15	Patterning Multi-Nanostructured Poly(l-lactic acid) Fibrous Matrices to Manipulate Biomolecule Distribution and Functions. *ACS Applied Materials & Interfaces*, **2018**, 10, 8465-8473	9.5	5
14	Tubular Silk Fibroin/Gelatin-Tyramine Hydrogel with Controllable Layer Structure and Its Potential Application for Tissue Engineering. *ACS Biomaterials Science and Engineering*, **2020**, 6, 6896-6905	5.5	5
13	Mineralization of a superficially porous microsphere scaffold via plasma modification. *RSC Advances* , **2017**, 7, 3521-3527	3.7	3
12	Loose Pre-Cross-Linking Mediating Cellulose Self-Assembly for 3D Printing Strong and Tough Biomimetic Scaffolds.. *Biomacromolecules*, **2022**,	6.9	3
11	Effect of Mineralized Layer Topographies on Stem Cell Behavior in Microsphere Scaffold. *Journal of Materials Science and Technology*, **2016**, 32, 971-977	9.1	3
10	Engineering topography: effects on nerve cell behaviors and applications in peripheral nerve repair. *Journal of Materials Chemistry B*, **2021**, 9, 6310-6325	7.3	3
9	Dynamic nanocomposite microgel assembly with microporosity, injectability, tissue-adhesion and sustained drug release promotes articular cartilage repair and regeneration. *Advanced Healthcare Materials*, **2021**, e2102395	10.1	2
8	Bioactive glass activates VEGF paracrine signaling of cardiomyocytes to promote cardiac angiogenesis. *Materials Science and Engineering C*, **2021**, 124, 112077	8.3	2
7	Effective Enzyme Coimmobilization and Synergistic Catalysis on Hierarchically Porous Inorganic/Organic Hybrid Microbeads Fabricated Via Droplet-Based Microfluidics. *Macromolecular Chemistry and Physics*, **2018**, 219, 1800106	2.6	2
6	In Situ Formation of Microgel Array Via Patterned Electrospun Nanofibers Promotes 3D Cell Culture and Drug Testing in a Microphysiological System.. *ACS Applied Bio Materials*, **2021**, 4, 6209-6218	4.1	2
5	Facile Fabrication of Hollow Hydrogel Microfiber via 3D Printing-Assisted Microfluidics and Its Application as a Biomimetic Blood Capillary. *ACS Biomaterials Science and Engineering*, **2021**, 7, 4971-4981	5.5	2
4	MicroRNA-activated hydrogel scaffold generated by 3D printing accelerates bone regeneration.. *Bioactive Materials*, **2022**, 10, 1-14	16.7	2
3	High strength HA-PEG/NAGA-Gelma double network hydrogel for annulus fibrosus rupture repair. *Smart Materials in Medicine*, **2022**, 3, 128-138	12.9	1
2	Solvent Mediating the Self-Assembly of Polysaccharides for 3D Printing Biomimetic Tissue Scaffolds. *ACS Nano*, **2021**,	16.7	1
1	Thermoresponsive nanocomposite hydrogels with high mechanical strength and toughness based on a dual crosslinking strategy. *Journal of Applied Polymer Science*, **2021**, 138, 51509	2.9	1