Hongsong Fan

List of Publications by Citations

115 papers	3,112 citations	33 h-index	50 g-index
121 ext. papers	3,827 ext. citations	7.7 avg, IF	5.31 L-index

#	Paper	IF	Citations
115	Synthesis and characterization of photocrosslinkable gelatin and silk fibroin interpenetrating polymer network hydrogels. *Acta Biomaterialia*, **2011**, 7, 2384-93	10.8	205
114	Fabrication, biological effects, and medical applications of calcium phosphate nanoceramics. *Materials Science and Engineering Reports*, **2010**, 70, 225-242	30.9	140
113	Preparation of collagen□chondroitin sulfate□hyaluronic acid hybrid hydrogel scaffolds and cell compatibility in vitro. *Carbohydrate Polymers*, **2011**, 84, 118-125	10.3	123
112	The material and biological characteristics of osteoinductive calcium phosphate ceramics. *International Journal of Energy Production and Management*, **2018**, 5, 43-59	5.3	120
111	PPy@MIL-100 Nanoparticles as a pH- and Near-IR-Irradiation-Responsive Drug Carrier for Simultaneous Photothermal Therapy and Chemotherapy of Cancer Cells. *ACS Applied Materials & Interfaces*, **2016**, 8, 34209-34217	9.5	100
110	Photo-cross-linkable methacrylated gelatin and hydroxyapatite hybrid hydrogel for modularly engineering biomimetic osteon. *ACS Applied Materials & Interfaces*, **2015**, 7, 10386-94	9.5	96
109	Collagen hydrogel as an immunomodulatory scaffold in cartilage tissue engineering. *Journal of Biomedical Materials Research - Part B Applied Biomaterials*, **2014**, 102, 337-44	3.5	95
108	Preparation of nano-hydroxyapatite particles with different morphology and their response to highly malignant melanoma cells in vitro. *Applied Surface Science*, **2008**, 255, 357-360	6.7	78
107	An improved complex gel of modified gellan gum and carboxymethyl chitosan for chondrocytes encapsulation. *Carbohydrate Polymers*, **2012**, 88, 46-53	10.3	74
106	Probing intermediates of the induction period prior to nucleation and growth of semiconductor quantum dots. *Nature Communications*, **2017**, 8, 15467	17.4	60
105	Thermally-induced reversible structural isomerization in colloidal semiconductor CdS magic-size clusters. *Nature Communications*, **2018**, 9, 2499	17.4	60
104	Microfluidic-based generation of functional microfibers for biomimetic complex tissue construction. *Acta Biomaterialia*, **2016**, 38, 153-62	10.8	56
103	Continuous Fabrication and Assembly of Spatial Cell-Laden Fibers for a Tissue-Like Construct via a Photolithographic-Based Microfluidic Chip. *ACS Applied Materials & Interfaces*, **2017**, 9, 14606-14617	9.5	50
102	Antitumor Effect by Hydroxyapatite Nanospheres: Activation of Mitochondria-Dependent Apoptosis and Negative Regulation of Phosphatidylinositol-3-Kinase/Protein Kinase B Pathway. *ACS Nano*, **2018**, 12, 7838-7854	16.7	50
101	Two-Step Nucleation of CdS Magic-Size Nanocluster MSC□11. *Chemistry of Materials*, **2017**, 29, 5727-5735	9.6	49
100	A spatial patternable macroporous hydrogel with cell-affinity domains to enhance cell spreading and differentiation. *Biomaterials*, **2014**, 35, 4759-68	15.6	47
99	Cell-Laden Electroconductive Hydrogel Simulating Nerve Matrix To Deliver Electrical Cues and Promote Neurogenesis. *ACS Applied Materials & Interfaces*, **2019**, 11, 22152-22163	9.5	46

98	Biomimetic interpenetrating polymer network hydrogels based on methacrylated alginate and collagen for 3D pre-osteoblast spreading and osteogenic differentiation. *Soft Matter*, **2012**, 8, 2398	3.6	46
97	In vivo cartilage engineering with collagen hydrogel and allogenous chondrocytes after diffusion chamber implantation in immunocompetent host. *Tissue Engineering - Part A*, **2009**, 15, 2145-53	3.9	45
96	Porous hydroxyapatite and biphasic calcium phosphate ceramics promote ectopic osteoblast differentiation from mesenchymal stem cells. *Science and Technology of Advanced Materials*, **2009**, 10, 025003	7.1	45
95	Effects of Composition and Mechanical Property of Injectable Collagen I/II Composite Hydrogels on Chondrocyte Behaviors. *Tissue Engineering - Part A*, **2016**, 22, 899-906	3.9	44
94	Individual Pathways in the Formation of Magic-Size Clusters and Conventional Quantum Dots. *Journal of Physical Chemistry Letters*, **2018**, 9, 3660-3666	6.4	43
93	A biocompatible hydrogel with improved stiffness and hydrophilicity for modular tissue engineering assembly. *Journal of Materials Chemistry B*, **2015**, 3, 2753-2763	7.3	40
92	Interpreting the Ultraviolet Absorption in the Spectrum of 415 nm-Bandgap CdSe Magic-Size Clusters. *Journal of Physical Chemistry Letters*, **2018**, 9, 2818-2824	6.4	40
91	Fabrication and characterization of collagen-based injectable and self-crosslinkable hydrogels for cell encapsulation. *Colloids and Surfaces B: Biointerfaces*, **2018**, 167, 448-456	6	39
90	Osteoinduction of porous titanium: a comparative study between acid-alkali and chemical-thermal treatments. *Journal of Biomedical Materials Research - Part B Applied Biomaterials*, **2010**, 95, 387-96	3.5	39
89	Modulation of immunological properties of allogeneic mesenchymal stem cells by collagen scaffolds in cartilage tissue engineering. *Journal of Biomedical Materials Research - Part A*, **2011**, 98, 332-41	5.4	38
88	Precursor Self-Assembly Identified as a General Pathway for Colloidal Semiconductor Magic-Size Clusters. *Advanced Science*, **2018**, 5, 1800632	13.6	38
87	An efficient method to synthesize carbonated nano hydroxyapatite assisted by poly(ethylene glycol). *Materials Letters*, **2012**, 75, 26-28	3.3	37
86	Formation of colloidal alloy semiconductor CdTeSe magic-size clusters at room temperature. *Nature Communications*, **2019**, 10, 1674	17.4	36
85	Evaluation of novel in situ synthesized nano-hydroxyapatite/collagen/alginate hydrogels for osteochondral tissue engineering. *Biomedical Materials (Bristol)*, **2014**, 9, 065004	3.5	35
84	Surface structural biomimetics and the osteoinduction of calcium phosphate biomaterials. *Journal of Nanoscience and Nanotechnology*, **2007**, 7, 808-13	1.3	33
83	Evolution of Two Types of CdTe Magic-Size Clusters from a Single Induction Period Sample. *Journal of Physical Chemistry Letters*, **2018**, 9, 5288-5295	6.4	33
82	Addition of sodium hyaluronate and the effect on performance of the injectable calcium phosphate cement. *Journal of Materials Science: Materials in Medicine*, **2009**, 20, 1595-602	4.5	30
81	Exploring of multicolor emissive carbon dots with novel double emission mechanism. *Sensors and Actuators B: Chemical*, **2018**, 277, 373-380	8.5	30

80	Photo-crosslinked mono-component type II collagen hydrogel as a matrix to induce chondrogenic differentiation of bone marrow mesenchymal stem cells. *Journal of Materials Chemistry B*, **2017**, 5, 8707-8718	7.3	29
79	Four Types of CdTe Magic-Size Clusters from One Prenucleation Stage Sample at Room Temperature. *Journal of Physical Chemistry Letters*, **2019**, 10, 4345-4353	6.4	29
78	Colloidal CdSe 0-Dimension Nanocrystals and Their Self-Assembled 2-Dimension Structures. *Chemistry of Materials*, **2018**, 30, 1575-1584	9.6	28
77	Bio-Functional Design, Application and Trends in Metallic Biomaterials. *International Journal of Molecular Sciences*, **2017**, 19,	6.3	28
76	Bioactive MOFs Based Theranostic Agent for Highly Effective Combination of Multimodal Imaging and Chemo-Phototherapy. *Advanced Healthcare Materials*, **2020**, 9, e2000205	10.1	27
75	NIR-to-Red Upconversion Nanoparticles with Minimized Heating Effect for Synchronous Multidrug Resistance Tumor Imaging and Therapy. *ACS Applied Materials & Interfaces*, **2018**, 10, 14378-14388	9.5	25
74	Bottom-up approach to build osteon-like structure by cell-laden photocrosslinkable hydrogel. *Chemical Communications*, **2012**, 48, 3170-2	5.8	25
73	Repair of large osteochondral defects in a beagle model with a novel type I collagen/glycosaminoglycan-porous titanium biphasic scaffold. *Materials Science and Engineering C*, **2013**, 33, 3951-7	8.3	23
72	One-Step Approach to Single-Ensemble CdS Magic-Size Clusters with Enhanced Production Yields. *Journal of Physical Chemistry Letters*, **2019**, 10, 2725-2732	6.4	22
71	Wet-spinning fabrication of shear-patterned alginate hydrogel microfibers and the guidance of cell alignment. *International Journal of Energy Production and Management*, **2017**, 4, 299-307	5.3	21
70	Carbonated Nano Hydroxyapatite Crystal Growth Modulated by Poly(ethylene glycol) with Different Molecular Weights. *Crystal Growth and Design*, **2012**, 12, 2204-2212	3.5	21
69	Fragmentation of Magic-Size Cluster Precursor Compounds into Ultrasmall CdS Quantum Dots with Enhanced Particle Yield at Low Temperatures. *Angewandte Chemie - International Edition*, **2020**, 59, 12013-12021	16.4	20
68	Photoluminescence-tunable carbon dots from synergy effect of sulfur doping and water engineering. *Chemical Engineering Journal*, **2020**, 388, 124199	14.7	20
67	Novel Tumor-Microenvironment-Based Sequential Catalytic Therapy by Fe(II)-Engineered Polydopamine Nanoparticles. *ACS Applied Materials & Interfaces*, **2019**, 11, 43018-43030	9.5	20
66	Transformation of ZnS Precursor Compounds to Magic-Size Clusters Exhibiting Optical Absorption Peaking at 269 nm. *Journal of Physical Chemistry Letters*, **2020**, 11, 75-82	6.4	20
65	Effect of Small Molecule Additives in the Prenucleation Stage of Semiconductor CdSe Quantum Dots. *Journal of Physical Chemistry Letters*, **2018**, 9, 6356-6363	6.4	20
64	Photoluminescent Colloidal Nanohelices Self-Assembled from CdSe Magic-Size Clusters via Nanoplatelets. *Journal of Physical Chemistry Letters*, **2019**, 10, 2794-2801	6.4	19
63	The development of cell-initiated degradable hydrogel based on methacrylated alginate applicable to multiple microfabrication technologies. *Journal of Materials Chemistry B*, **2017**, 5, 8060-8069	7.3	19

62	Biomineralized Hydrogel with Enhanced Toughness by Chemical Bonding of Alkaline Phosphatase and Vinylphosphonic Acid in Collagen Framework. *ACS Biomaterials Science and Engineering*, **2019**, 5, 1405-1415	5.5	19
61	Methacrylamide-modified collagen hydrogel with improved anti-actin-mediated matrix contraction behavior. *Journal of Materials Chemistry B*, **2018**, 6, 7543-7555	7.3	19
60	Establishing a cell-affinitive interface and spreading space in a 3D hydrogel by introduction of microcarriers and an enzyme. *Journal of Materials Chemistry B*, **2014**, 2, 6601-6610	7.3	18
59	Injectable and self-crosslinkable hydrogels based on collagen type II and activated chondroitin sulfate for cell delivery. *International Journal of Biological Macromolecules*, **2018**, 118, 2014-2020	7.9	17
58	Vascularization in Engineered Tissue Construct by Assembly of Cellular Patterned Micromodules and Degradable Microspheres. *ACS Applied Materials & Interfaces*, **2017**, 9, 3524-3534	9.5	16
57	Cellular internalization of rod-like nano hydroxyapatite particles and their size and dose-dependent effects on pre-osteoblasts. *Journal of Materials Chemistry B*, **2017**, 5, 1205-1217	7.3	16
56	Cell alignment guided by nano/micro oriented collagen fibers and the synergistic vascularization for nervous cell functional expression. *Materials Today Chemistry*, **2018**, 8, 85-95	6.2	16
55	Degradation regulated bioactive hydrogel as the bioink with desirable moldability for microfluidic biofabrication. *Carbohydrate Polymers*, **2017**, 178, 8-17	10.3	16
54	Chondrogenic differentiation and immunological properties of mesenchymal stem cells in collagen type I hydrogel. *Biotechnology Progress*, **2010**, 26, 1749-58	2.8	16
53	Room-Temperature Formation Pathway for CdTeSe Alloy Magic-Size Clusters. *Angewandte Chemie - International Edition*, **2020**, 59, 16943-16952	16.4	15
52	A one-pot synthesis of multifunctional BiS nanoparticles and the construction of core-shell BiS@Ce6-CeO nanocomposites for NIR-triggered phototherapy. *Journal of Materials Chemistry B*, **2020**, 8, 4093-4105	7.3	15
51	Biofabrication of nerve fibers with mimetic myelin sheath-like structure and aligned fibrous niche. *Biofabrication*, **2020**, 12, 035013	10.5	15
50	Evolution of CdTe Magic-Size Clusters with Single Absorption Doublet Assisted by Adding Small Molecules during Prenucleation. *Journal of Physical Chemistry Letters*, **2020**, 11, 2230-2240	6.4	15
49	The effect of stress and tissue fluid microenvironment on allogeneic chondrocytes in vivo and the immunological properties of engineered cartilage. *Biomaterials*, **2011**, 32, 6017-24	15.6	15
48	Investigation of luminescent mechanism: N-rich carbon dots as luminescence centers in fluorescent hydroxyapatite prepared using a typical hydrothermal process. *Journal of Materials Chemistry B*, **2017**, 5, 3749-3757	7.3	14
47	Automated fabrication of hydrogel microfibers with tunable diameters for controlled cell alignment. *Biofabrication*, **2017**, 9, 045009	10.5	13
46	NIR-responsive multi-healing HMPAM/dextran/AgNWs hydrogel sensor with recoverable mechanics and conductivity for human-machine interaction. *Carbohydrate Polymers*, **2020**, 247, 116686	10.3	13
45	Construction and evaluation of fibrillar composite hydrogel of collagen/konjac glucomannan for potential biomedical applications. *International Journal of Energy Production and Management*, **2018**, 5, 239-250	5.3	13

44	Preparation of porous PLGA/Ti biphasic scaffold and osteochondral defect repair. *Biomaterials Science*, **2013**, 1, 703-710	7.4	13
43	Mechanics-Controlled Dynamic Cell Niches Guided Osteogenic Differentiation of Stem Cells via Preserved Cellular Mechanical Memory. *ACS Applied Materials & Interfaces*, **2020**, 12, 260-274	9.5	13
42	The effects of chemical crosslinking manners on the physical properties and biocompatibility of collagen type I/hyaluronic acid composite hydrogels. *International Journal of Biological Macromolecules*, **2020**, 160, 1201-1211	7.9	12
41	Biomimetic mineralizable collagen hydrogels for dynamic bone matrix formation to promote osteogenesis. *Journal of Materials Chemistry B*, **2020**, 8, 3064-3075	7.3	12
40	An efficient two-step preparation of photocrosslinked gelatin microspheres as cell carriers to support MC3T3-E1 cells osteogenic performance. *Colloids and Surfaces B: Biointerfaces*, **2020**, 188, 110798	6	12
39	Theranostic system based on NaY(Mn)F:Yb/Er upconversion nanoparticles with multi-drug resistance reversing ability. *Journal of Materials Chemistry B*, **2018**, 6, 3586-3599	7.3	12
38	Bioactivity of porous titanium with hydrogen peroxide solution with or without tantalum chloride treatment at a low temperature. *Biomedical Materials (Bristol)*, **2013**, 8, 025006	3.5	12
37	Preparation and cytocompatibility of chitosan-modified polylactide. *Journal of Applied Polymer Science*, **2008**, 110, 408-412	2.9	12
36	A Gd-doped polydopamine (PDA)-based theranostic nanoplatform as a strong MR/PA dual-modal imaging agent for PTT/PDT synergistic therapy. *Journal of Materials Chemistry B*, **2021**, 9, 1846-1857	7.3	12
35	Tunable Fast Relaxation in Imine-Based Nanofibrillar Hydrogels Stimulates Cell Response through TRPV4 Activation. *Biomacromolecules*, **2020**, 21, 3745-3755	6.9	10
34	Room-temperature formation of CdS magic-size clusters in aqueous solutions assisted by primary amines. *Nature Communications*, **2020**, 11, 4199	17.4	10
33	Temperature triggered high-performance carbon dots with robust solvatochromic effect and self-quenching-resistant deep red solid state fluorescence for specific lipid droplet imaging. *Chemical Engineering Journal*, **2021**, 415, 128984	14.7	10
32	Fragmentation of Magic-Size Cluster Precursor Compounds into Ultrasmall CdS Quantum Dots with Enhanced Particle Yield at Low Temperatures. *Angewandte Chemie*, **2020**, 132, 12111-12119	3.6	8
31	Synthesis of photo-reactive poly (vinyl alcohol) and construction of scaffold-free cartilage like pellets. *International Journal of Energy Production and Management*, **2018**, 5, 159-166	5.3	8
30	Material-induced chondrogenic differentiation of mesenchymal stem cells is material-dependent. *Experimental and Therapeutic Medicine*, **2014**, 7, 1147-1150	2.1	8
29	Fabrication of gelatin-micropatterned surface and its effect on osteogenic differentiation of hMSCs. *Journal of Materials Chemistry B*, **2018**, 6, 1018-1025	7.3	7
28	Spatiotemporal regulation of dynamic cell microenvironment signals based on an azobenzene photoswitch. *Journal of Materials Chemistry B*, **2020**, 8, 9212-9226	7.3	7
27	Fabrication and assembly of porous micropatterned scaffolds for modular tissue engineering. *Materials Letters*, **2018**, 228, 360-364	3.3	7

26	CdS magic-size clusters exhibiting one sharp ultraviolet absorption singlet peaking at 361 nm. *Nano Research*, **2019**, 12, 1437-1444	10	6
25	Experimental observation of two-layer TiO2 nanotube arrays prepared by stepping-voltage anodization. *Physica Status Solidi - Rapid Research Letters*, **2012**, 6, 166-168	2.5	6
24	Effect of flowing speed on bone-like apatite formation in porous calcium phosphate in dynamic RSBF. *Journal of Materials Science*, **2005**, 40, 1809-1812	4.3	6
23	Combining Electrospinning and Electrospraying to Prepare a Biomimetic Neural Scaffold with Synergistic Cues of Topography and Electrotransduction.. *ACS Applied Bio Materials*, **2020**, 3, 5148-5159	4.1	6
22	Static-Dynamic Profited Viscoelastic Hydrogels for Motor-Clutch-Regulated Neurogenesis. *ACS Applied Materials & Interfaces*, **2021**, 13, 24463-24476	9.5	6
21	The effect of collagen hydrogels on chondrocyte behaviors through restricting the contraction of cell/hydrogel constructs. *International Journal of Energy Production and Management*, **2021**, 8, rbab030	5.3	6
20	Magnetoelectric Nanoparticles Incorporated Biomimetic Matrix for Wireless Electrical Stimulation and Nerve Regeneration. *Advanced Healthcare Materials*, **2021**, 10, e2100695	10.1	6
19	Facile synthesis of nano-sized CuFeS: morphology and diverse functional tuning and crystal growth mechanism exploring. *International Journal of Energy Production and Management*, **2017**, 4, 223-231	5.3	5
18	Biomimetic mineralized microenvironment stiffness regulated BMSCs osteogenic differentiation through cytoskeleton mediated mechanical signaling transduction. *Materials Science and Engineering C*, **2021**, 119, 111613	8.3	5
17	Identifying Clusters and/or Small-Size Quantum Dots in Colloidal CdSe Ensembles with Optical Spectroscopy. *Journal of Physical Chemistry Letters*, **2019**, 10, 6399-6408	6.4	4
16	A facile approach for engineering tissue constructs with vessel-like channels by cell-laden hydrogel fibers. *Materials Science and Engineering C*, **2019**, 101, 370-379	8.3	3
15	Room-Temperature Formation Pathway for CdTeSe Alloy Magic-Size Clusters. *Angewandte Chemie*, **2020**, 132, 17091-17100	3.6	3
14	In vivo immunological properties research on mesenchymal stem cells based engineering cartilage by a dialyzer pocket model. *Journal of Materials Science: Materials in Medicine*, **2017**, 28, 150	4.5	3
13	Effect of adipic dihydrazide modification on the performance of collagen/hyaluronic acid scaffold. *Journal of Biomedical Materials Research - Part B Applied Biomaterials*, **2010**, 92, 307-16	3.5	3
12	Activated hyaluronic acid/collagen composite hydrogel with tunable physical properties and improved biological properties. *International Journal of Biological Macromolecules*, **2020**, 164, 2186-2196	7.9	3
11	Dual functional modification of gellan gum hydrogel by introduction of methyl methacrylate and RGD contained polypeptide. *Materials Letters*, **2020**, 264, 127341	3.3	2
10	One-step synthesis of ultrabright amphiphilic carbon dots for rapid and precise tracking lipid droplets dynamics in biosystems.. *Biosensors and Bioelectronics*, **2021**, 200, 113928	11.8	2
9	Dynamically Modulated Core-Shell Microfibers to Study the Effect of Depth Sensing of Matrix Stiffness on Stem Cell Fate. *ACS Applied Materials & Interfaces*, **2021**, 13, 37997-38006	9.5	2

8	Tissue engineered artificial liver model based on viscoelastic hyaluronan-collagen hydrogel and the effect of EGCG intervention on ALD. *Colloids and Surfaces B: Biointerfaces*, **2021**, 206, 111980	6	2
7	A facile green approach for fabricating bacterial cellulose scaffold with macroporous structure and cell affinity. *Journal of Bioactive and Compatible Polymers*, **2019**, 34, 442-452	2	1
6	Effect of the crystallinity of calcium phosphate ceramics on osteoblast proliferation in vitro. *Journal of Materials Science Letters*, **2001**, 20, 331-332		1
5	Semiconvertible Hyaluronic Hydrogel Enabled Red-Light-Responsive Reversible Mechanics, Adhesion, and Self-Healing.. *Biomacromolecules*, **2022**,	6.9	1
4	Aldehyde-methacrylate-hyaluronan profited hydrogel system integrating aligned and viscoelastic cues for neurogenesis.. *Carbohydrate Polymers*, **2022**, 278, 118961	10.3	1
3	Evolution of Two Types of ZnTe Magic-Size Clusters Displaying Sharp Doublets in Optical Absorption. *Journal of Physical Chemistry Letters*, **2021**, 12, 4762-4768	6.4	1
2	Sandwich-interface inspired strategy for controlled formation of nanoparticles. *Nanoscale*, **2018**, 10, 11624-11632	7.7	1
1	Innentitelbild: Room-Temperature Formation Pathway for CdTeSe Alloy Magic-Size Clusters (Angew. Chem. 39/2020). *Angewandte Chemie*, **2020**, 132, 16950-16950	3.6	