Wei Wang

List of Publications by Year
in descending order

75 papers	10,342 citations	94381 37 h-index	79644 73 g-index
76 all docs	76 docs citations	76 times ranked	13880 citing authors

#	Article	IF	Citations
1	Quantum-Sized Carbon Dots for Bright and Colorful Photoluminescence. Journal of the American Chemical Society, 2006, 128, 7756-7757.	6.6	4,049
2	A Mechanically Strong, Highly Stable, Thermoplastic, and Selfâ€Healable Supramolecular Polymer Hydrogel. Advanced Materials, 2015, 27, 3566-3571.	11.1	684
3	Nano-carrier for gene delivery and bioimaging based on carbon dots with PEI-passivation enhanced fluorescence. Biomaterials, 2012, 33, 3604-3613.	5.7	664
4	One-pot hydrothermal synthesis of highly luminescent nitrogen-doped amphoteric carbon dots for bioimaging from Bombyx mori silk â€“ natural proteins. Journal of Materials Chemistry B, 2013, 1, 2868.	2.9	440
5	Bioinspired fabrication of high strength hydrogels from non-covalent interactions. Progress in Polymer Science, 2017, 71, 1-25.	11.8	379
6	Paintable and Rapidly Bondable Conductive Hydrogels as Therapeutic Cardiac Patches. Advanced Materials, 2018, 30, e1704235.	11.1	329
7	Water-soluble and phosphorus-containing carbon dots with strong green fluorescence for cell labeling. Journal of Materials Chemistry B, 2014, 2, 46-48.	2.9	224
8	A hybrid injectable hydrogel from hyperbranched PEG macromer as a stem cell delivery and retention platform for diabetic wound healing. Acta Biomaterialia, 2018, 75, 63-74.	4.1	213
9	The transition from linear to highly branched poly(Î²-amino ester)s: Branching matters for gene delivery. Science Advances, 2016, 2, e1600102.	4.7	163
10	A Ï€-Ï€ conjugation-containing soft and conductive injectable polymer hydrogel highly efficiently rebuilds cardiac function after myocardial infarction. Biomaterials, 2017, 122, 63-71.	5.7	147
11	An injectable conductive hydrogel encapsulating plasmid DNA-eNOs and ADSCs for treating myocardial infarction. Biomaterials, 2018, 160, 69-81.	5.7	147
12	The restoration of full-thickness cartilage defects with BMSCs and TGF-beta 1 loaded PLGA/fibrin gel constructs. Biomaterials, 2010, 31, 8964-8973.	5.7	146
13	In vivo restoration of full-thickness cartilage defects by poly(lactide-co-glycolide) sponges filled with fibrin gel, bone marrow mesenchymal stem cells and DNA complexes. Biomaterials, 2010, 31, 5953-5965.	5.7	134
14	A robust, highly stretchable supramolecular polymer conductive hydrogel with self-healability and thermo-processability. Scientific Reports, 2017, 7, 41566.	1.6	132
15	NIRâ€Activated Polydopamineâ€Coated Carrierâ€Free â€œNanobombâ€•for In Situ Onâ€Demand Drug Release. Advanced Science, 2018, 5, 1800155.	5.6	130
16	A Mineralized High Strength and Tough Hydrogel for Skull Bone Regeneration. Advanced Functional Materials, 2017, 27, 1604327.	7.8	124
17	Injectable hyperbranched poly(Î²-amino ester) hydrogels with on-demand degradation profiles to match wound healing processes. Chemical Science, 2018, 9, 2179-2187.	3.7	123
18	Fabrication of a shape memory hydrogel based on imidazoleâ€“zinc ion coordination for potential cell-encapsulating tubular scaffold application. Soft Matter, 2013, 9, 132-137.	1.2	108

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19	Wound dressing change facilitated by spraying zinc ions. Materials Horizons, 2020, 7, 605-614.	6.4	106
20	Reconstruction of rat calvarial defects with human mesenchymal stem cells and osteoblast-like cells in poly-lactic-co-glycolic acid scaffolds. , 2010, 20, 109-120.		95
21	Conductive Hydrogen Sulfide-Releasing Hydrogel Encapsulating ADSCs for Myocardial Infarction Treatment. ACS Applied Materials & Interfaces, 2019, 11, 14619-14629.	4.0	93
22	An anti-inflammatory cell-free collagen/resveratrol scaffold for repairing osteochondral defects in rabbits. Acta Biomaterialia, 2014, 10, 4983-4995.	4.1	89
23	Cationic polymer brush grafted-nanodiamond via atom transfer radical polymerization for enhanced gene delivery and bioimaging. Journal of Materials Chemistry, 2011, 21, 7755.	6.7	88
24	Catechol functionalized hyperbranched polymers as biomedical materials. Progress in Polymer Science, 2018, 78, 47-55.	11.8	85
25	Highly Branched Poly(Î²-Amino Esters): Synthesis and Application in Gene Delivery. Biomacromolecules, 2015, 16, 2609-2617.	2.6	82
26	Rebuilding Postinfarcted Cardiac Functions by Injecting TIIA@PDA Nanoparticle-Cross-linked ROS-Sensitive Hydrogels. ACS Applied Materials & Interfaces, 2019, 11, 2880-2890.	4.0	79
27	Biological applications of carbon dots. Science China Chemistry, 2014, 57, 522-539.	4.2	77
28	The biocompatibility of fatty acid modified dextran-agmatine bioconjugate gene delivery vector. Biomaterials, 2012, 33, 604-613.	5.7	72
29	Injectable Hypoxia-Induced Conductive Hydrogel to Promote Diabetic Wound Healing. ACS Applied Materials & Interfaces, 2020, 12, 56681-56691.	4.0	66
30	Tailoring highly branched poly(Î²-amino ester)s: a synthetic platform for epidermal gene therapy. Chemical Communications, 2015, 51, 8473-8476.	2.2	62
31	Amphoteric hyaluronic acid derivative for targeting gene delivery. Biomaterials, 2010, 31, 9357-9365.	5.7	58
32	Nano-silver in situ hybridized collagen scaffolds for regeneration of infected full-thickness burn skin. Journal of Materials Chemistry B, 2015, 3, 4231-4241.	2.9	58
33	Restoring Cardiac Functions after Myocardial Infarctionâ€“Ischemia/Reperfusion via an Exosome Anchoring Conductive Hydrogel. ACS Applied Materials & Interfaces, 2021, 13, 56892-56908.	4.0	52
34	Zinc ion-triggered two-way macro-/microscopic shape changing and memory effects in high strength hydrogels with pre-programmed unilateral patterned surfaces. Soft Matter, 2012, 8, 6846.	1.2	51
35	Electrospun gelatin/polycaprolactone nanofibrous membranes combined with a coculture of bone marrow stromal cells and chondrocytes for cartilage engineering. International Journal of Nanomedicine, 2015, 10, 2089.	3.3	51
36	Enhanced Therapeutic siRNA to Tumor Cells by a pH-Sensitive Agmatineâ€“Chitosan Bioconjugate. ACS Applied Materials & Interfaces, 2015, 7, 8114-8124.	4.0	51

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37	Directed neural stem cell differentiation on polyaniline-coated high strength hydrogels. Materials Today Chemistry, 2016, 1-2, 15-22.	1.7	42
38	Intramolecular Cyclization Dominating Homopolymerization of Multivinyl Monomers toward Single-Chain Cyclized/Knotted Polymeric Nanoparticles. Macromolecules, 2015, 48, 6882-6889.	2.2	37
39	Surface passivated carbon nanodots prepared by microwave assisted pyrolysis: effect of carboxyl group in precursors on fluorescence properties. RSC Advances, 2014, 4, 18818-18826.	1.7	36
40	Versatile Hyperbranched Poly(Î²-hydrazide ester) Macromers as Injectable Antioxidative Hydrogels. ACS Applied Materials & Interfaces, 2018, 10, 39494-39504.	4.0	35
41	High-strength hydrogel as a reusable adsorbent of copper ions. Journal of Hazardous Materials, 2012, 213-214, 258-264.	6.5	33
42	Synthesis of ROS scavenging microspheres from a dopamine containing poly(Î²-amino ester) for applications for neurodegenerative disorders. Biomaterials Science, 2016, 4, 400-404.	2.6	31
43	MMPâ€2 Responsive Unidirectional Hydrogelâ€Electrospun Patch Loading TGFâ€Î²1 siRNA Polyplexes for Peritendinous Antiâ€Adhesion. Advanced Functional Materials, 2021, 31, 2008364.	7.8	30
44	An injectable hydrogel based on phenylboronic acid hyperbranched macromer encapsulating gold nanorods and Astragaloside IV nanodrug for myocardial infarction. Chemical Engineering Journal, 2021, 413, 127423.	6.6	28
45	Proliferation and osteogenesis of immortalized bone marrowâ€derived mesenchymal stem cells in porous polylactic glycolic acid scaffolds under perfusion culture. Journal of Biomedical Materials Research - Part A, 2010, 92A, 817-829.	2.1	27
46	Understanding the Capsanthin Tails in Regulating the Hydrophilicâ€“Lipophilic Balance of Carbon Dots for a Rapid Crossing Cell Membrane. Langmuir, 2017, 33, 10259-10270.	1.6	27
47	ZnO quantum dots-embedded collagen/polyanion composite hydrogels with integrated functions of degradation tracking/inhibition and gene delivery. Journal of Materials Chemistry, 2012, 22, 512-519.	6.7	22
48	A conductive and biodegradable hydrogel for minimally delivering adipose-derived stem cells. Science China Technological Sciences, 2019, 62, 1747-1754.	2.0	22
49	An MMP-degradable and conductive hydrogel to stabilize HIF-1Î± for recovering cardiac functions. Theranostics, 2022, 12, 127-142.	4.6	22
50	A hybrid scaffold of poly(lactide-co-glycolide) sponge filled with fibrin gel for cartilage tissue engineering. Chinese Journal of Polymer Science (English Edition), 2011, 29, 233-240.	2.0	19
51	PDMAEMA-b-polysulfobetaine brushes-modified Îµ-polylysine as a serum-resistant vector for highly efficient gene delivery. Journal of Materials Chemistry, 2012, 22, 23576.	6.7	19
52	A systemic gene vector constructed by zwitterionic polymer modified low molecular weight PEI. Reactive and Functional Polymers, 2013, 73, 993-1000.	2.0	17
53	Fenton reaction-initiated formation of biocompatible injectable hydrogels for cell encapsulation. Journal of Materials Chemistry B, 2013, 1, 3932.	2.9	16
54	Minimal invasive annulotomy for induction of disc degeneration and implantation of poly (lactic-co-glycolic acid) (PLGA) plugs for annular repair in a rabbit model. European Journal of Medical Research, 2016, 21, 7.	0.9	16

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55	Hyperbranched PEG-based multi-NHS polymer and bioconjugation with BSA. Polymer Chemistry, 2017, 8, 1283-1287.	1.9	16
56	Particulate-Aggregated Adhesives with Exudate-Sensitive Properties and Sustained Bacteria Disinfection to Facilitate Wound Healing. ACS Applied Materials & Interfaces, 2020, 12, 31090-31098.	4.0	16
57	UV light-triggered unpacking of DNA to enhance gene transfection of azobenzene-containing polycations. Journal of Materials Chemistry B, 2014, 2, 3868.	2.9	15
58	Ultrastable coreâ€“shell structured nanoparticles directly made from zwitterionic polymers. Chemical Communications, 2014, 50, 15030-15033.	2.2	14
59	Bacteriaâ€Resistant Single Chain Cyclized/Knotted Polymer Coatings. Angewandte Chemie - International Edition, 2019, 58, 10616-10620.	7.2	14
60	A multifunctional biomedical patch based on hyperbranched epoxy polymer and MXene. Science China Technological Sciences, 2021, 64, 2744-2754.	2.0	11
61	Effects of annulus defects and implantation of poly(lactic-co-glycolic acid) (PLGA)/fibrin gel scaffolds on nerves ingrowth in a rabbit model of annular injury disc degeneration. Journal of Orthopaedic Surgery and Research, 2017, 12, 73.	0.9	10
62	An Extensively Adhesive Patch with Multiple Physical Interactions and Chemical Crosslinking as a Wound Dressing and Strain Sensor. ACS Applied Polymer Materials, 2022, 4, 3926-3941.	2.0	10
63	An injectable hydrogel to reverse the adverse microenvironment of diabetic infarcted heart. Materialia, 2021, 15, 100957.	1.3	9
64	Restoration of rat calvarial defects by poly(lactide-co-glycolide)/hydroxyapatite scaffolds loaded with bone mesenchymal stem cells and DNA complexes. Science Bulletin, 2012, 57, 435-444.	1.7	8
65	â€œFerrero-likeâ€•nanoparticles knotted injectable hydrogels to initially scavenge ROS and lastingly promote vascularization in infarcted hearts. Science China Technological Sciences, 2020, 63, 2435-2448.	2.0	8
66	Polyethylenimine-based nanovector grafted with mannitol moieties to achieve effective gene delivery and transfection. Nanotechnology, 2020, 31, 325101.	1.3	8
67	A removable, antibacterial and strong adhesive based on hyperbranched catechol polymers. Materials Letters, 2022, 316, 132019.	1.3	7
68	Stable gene transfection mediated by polysulfobetaine/PDMAEMA diblock copolymer in salted medium. Journal of Biomaterials Science, Polymer Edition, 2013, 24, 330-343.	1.9	6
69	Strong and Injectable Hydrogels Based on Multivalent Metal Ion-Peptide Cross-linking. Chemical Research in Chinese Universities, 2020, 36, 962-969.	1.3	6
70	A change-prone zwitterionic hyperbranched terpolymer-based diabetic wound dressing. Applied Materials Today, 2022, 27, 101477.	2.3	5
71	Introducing primary and tertiary amino groups into a neutral polymer: A simple way to fabricating highly efficient nonviral vectors for gene delivery. Journal of Applied Polymer Science, 2014, 131, .	1.3	3
72	Shape memory materials promoting cell adhesion and tissue invasion towards the applications requiring minimally invasive implantation. Journal of Biomaterials Science, Polymer Edition, 2020, 31, 1820-1835.	1.9	3

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73	Opinion on the recent development of injectable biomaterials for treating myocardial infarction. Science China Technological Sciences, 2017, 60, 1278-1280.	2.0	2
74	Bacteriaâ€Resistant Single Chain Cyclized/Knotted Polymer Coatings. Angewandte Chemie, 2019, 131, 10726-10730.	1.6	0
75	Advances in Nanomaterials for Injured Heart Repair. Frontiers in Bioengineering and Biotechnology, 2021, 9, 686684.	2.0	0