Zhipeng Gu

List of Publications by Year
in descending order

112 papers	5,974 citations	53660 45 h-index	82410 72 g-index
112 all docs	112 docs citations	112 times ranked	6424 citing authors

#	Article	IF	Citations
1	Advances and Impact of Antioxidant Hydrogel in Chronic Wound Healing. Advanced Healthcare Materials, 2020, 9, e1901502.	3.9	373
2	Regulating the absorption spectrum of polydopamine. Science Advances, 2020, 6, .	4.7	254
3	Polydopamine antibacterial materials. Materials Horizons, 2021, 8, 1618-1633.	6.4	246
4	Polyphenol scaffolds in tissue engineering. Materials Horizons, 2021, 8, 145-167.	6.4	203
5	Black Phosphorus Hydrogel Scaffolds Enhance Bone Regeneration via a Sustained Supply of Calcium-Free Phosphorus. ACS Applied Materials & Interfaces, 2019, 11, 2908-2916.	4.0	189
6	Arginine derivatives assist dopamine-hyaluronic acid hybrid hydrogels to have enhanced antioxidant activity for wound healing. Chemical Engineering Journal, 2020, 392, 123775.	6.6	177
7	Modification of collagen with a natural derived cross-linker, alginate dialdehyde. Carbohydrate Polymers, 2014, 102, 324-332.	5.1	144
8	Highly fluorescent Zn-doped carbon dots as Fenton reaction-based bio-sensors: an integrative experimentalâ€“theoretical consideration. Nanoscale, 2016, 8, 17919-17927.	2.8	141
9	Self-assembly of collagen-based biomaterials: preparation, characterizations and biomedical applications. Journal of Materials Chemistry B, 2018, 6, 2650-2676.	2.9	135
10	The scaffold microenvironment for stem cell based bone tissue engineering. Biomaterials Science, 2017, 5, 1382-1392.	2.6	109
11	Development of collagen/polydopamine complexed matrix as mechanically enhanced and highly biocompatible semi-natural tissue engineering scaffold. Acta Biomaterialia, 2017, 47, 135-148.	4.1	109
12	Double network hydrogel for tissue engineering. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2018, 10, e1520.	3.3	104
13	Preparation of chitosan/silk fibroin blending membrane fixed with alginate dialdehyde for wound dressing. International Journal of Biological Macromolecules, 2013, 58, 121-126.	3.6	103
14	Structural and Functional Tailoring of Melanin-Like Polydopamine Radical Scavengers. CCS Chemistry, 2020, 2, 128-138.	4.6	99
15	Reduced polydopamine nanoparticles incorporated oxidized dextran/chitosan hybrid hydrogels with enhanced antioxidative and antibacterial properties for accelerated wound healing. Carbohydrate Polymers, 2021, 257, 117598.	5.1	95
16	Polymeric nanoparticles for colon cancer therapy: overview and perspectives. Journal of Materials Chemistry B, 2016, 4, 7779-7792.	2.9	93
17	ROS Scavenging Biopolymers for Antiâ€Inflammatory Diseases: Classification and Formulation. Advanced Materials Interfaces, 2020, 7, 2000632.	1.9	92
18	Nanosilver-incorporated halloysite nanotubes/gelatin methacrylate hybrid hydrogel with osteoimmunomodulatory and antibacterial activity for bone regeneration. Chemical Engineering Journal, 2020, 382, 123019.	6.6	83

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19	High-performance porous PLLA-based scaffolds for bone tissue engineering: Preparation, characterization, and in vitro and in vivo evaluation. Polymer, 2019, 180, 121707.	1.8	81
20	Self-assembly of peptide amphiphiles for drug delivery: the role of peptide primary and secondary structures. Biomaterials Science, 2017, 5, 2369-2380.	2.6	80
21	In vitro study on the degradation of lithium-doped hydroxyapatite for bone tissue engineering scaffold. Materials Science and Engineering C, 2016, 66, 185-192.	3.8	79
22	Electrospun poly (butylene succinate)/cellulose nanocrystals bio-nanocomposite scaffolds for tissue engineering: Preparation, characterization and in vitro evaluation. Polymer Testing, 2018, 71, 101-109.	2.3	79
23	Versatile polyphenolic platforms in regulating cell biology. Chemical Society Reviews, 2022, 51, 4175-4198.	18.7	76
24	Evaluation of 1â€ethylâ€3â€methylimidazolium acetate based ionic liquid systems as a suitable solvent for collagen. Journal of Applied Polymer Science, 2013, 130, 2245-2256.	1.3	71
25	Feasibility study of a novel crosslinking reagent (alginate dialdehyde) for biological tissue fixation. Carbohydrate Polymers, 2012, 87, 1589-1595.	5.1	70
26	Near infrared photothermal-responsive poly(vinyl alcohol)/black phosphorus composite hydrogels with excellent on-demand drug release capacity. Journal of Materials Chemistry B, 2018, 6, 1622-1632.	2.9	67
27	Gelatin methacryloyl (GelMA)-based biomaterials for bone regeneration. RSC Advances, 2019, 9, 17737-17744.	1.7	64
28	Coculture of Peripheral Blood-Derived Mesenchymal Stem Cells and Endothelial Progenitor Cells on Strontium-Doped Calcium Polyphosphate Scaffolds to Generate Vascularized Engineered Bone. Tissue Engineering - Part A, 2015, 21, 948-959.	1.6	62
29	Arginine-based poly(ester amide) nanoparticle platform: From structureâ€“property relationship to nucleic acid delivery. Acta Biomaterialia, 2018, 74, 180-191.	4.1	61
30	Halloysite Nanotube Based Scaffold for Enhanced Bone Regeneration. ACS Biomaterials Science and Engineering, 2019, 5, 4037-4047.	2.6	61
31	Red Jujube-Incorporated Gelatin Methacryloyl (GelMA) Hydrogels with Anti-Oxidation and Immunoregulation Activity for Wound Healing. Journal of Biomedical Nanotechnology, 2019, 15, 1357-1370.	0.5	59
32	Therapeutic Nanoparticles from Grape Seed for Modulating Oxidative Stress. Small, 2021, 17, e2102485.	5.2	57
33	Surface modification of strontium-doped porous bioactive ceramic scaffolds via poly(DOPA) coating and immobilizing silk fibroin for excellent angiogenic and osteogenic properties. Biomaterials Science, 2016, 4, 678-688.	2.6	56
34	Application of strontium-doped calcium polyphosphate scaffold on angiogenesis for bone tissue engineering. Journal of Materials Science: Materials in Medicine, 2013, 24, 1251-1260.	1.7	55
35	Advances in glycosylation-mediated cancer-targeted drug delivery. Drug Discovery Today, 2018, 23, 1126-1138.	3.2	54
36	Whole wheat flour coating with antioxidant property accelerates tissue remodeling for enhanced wound healing. Chinese Chemical Letters, 2020, 31, 1612-1615.	4.8	54

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37	Arginine based poly (ester amide)/ hyaluronic acid hybrid hydrogels for bone tissue Engineering. Carbohydrate Polymers, 2020, 230, 115640.	5.1	54
38	More natural more better: triple natural anti-oxidant puerarin/ferulic acid/polydopamine incorporated hydrogel for wound healing. Journal of Nanobiotechnology, 2021, 19, 237.	4.2	53
39	Synergistic effect of carbodiimide and dehydrothermal crosslinking on acellular dermal matrix. International Journal of Biological Macromolecules, 2013, 55, 221-230.	3.6	52
40	Fabrication of bimodal open-porous poly (butylene succinate)/cellulose nanocrystals composite scaffolds for tissue engineering application. International Journal of Biological Macromolecules, 2020, 147, 1164-1173.	3.6	52
41	Acceleration of segmental bone regeneration in a rabbit model by strontium-doped calcium polyphosphate scaffold through stimulating VEGF and bFGF secretion from osteoblasts. Materials Science and Engineering C, 2013, 33, 274-281.	3.8	50
42	A novel combined polyphenol-aldehyde crosslinking of collagen filmâ€"Applications in biomedical materials. International Journal of Biological Macromolecules, 2017, 101, 889-895.	3.6	50
43	High performance high-density polyethylene/hydroxyapatite nanocomposites for load-bearing bone substitute: fabrication, in vitro and in vivo biocompatibility evaluation. Composites Science and Technology, 2019, 175, 100-110.	3.8	50
44	Tumor immune microenvironment modulation-based drug delivery strategies for cancer immunotherapy. Nanoscale, 2020, 12, 413-436.	2.8	49
45	Ultrasmall Nanoparticle ROS Scavengers Based on Polyhedral Oligomeric Silsesquioxanes. Chinese Journal of Polymer Science (English Edition), 2020, 38, 1149-1156.	2.0	49
46	Evaluation of toxicity of halloysite nanotubes and multi-walled carbon nanotubes to endothelial cells <i>inÂvitro</i> and blood vessels <i>inÂvivo</i>. Nanotoxicology, 2020, 14, 1017-1038.	1.6	44
47	Natural polyphenol fluorescent polymer dots. Green Chemistry, 2021, 23, 1834-1839.	4.6	44
48	Polyphenolic sunscreens for photoprotection. Green Chemistry, 2022, 24, 3605-3622.	4.6	44
49	Multi-Layered Hydrogels for Biomedical Applications. Frontiers in Chemistry, 2018, 6, 439.	1.8	43
50	Acid-responsive composite hydrogel platform with space-controllable stiffness and calcium supply for enhanced bone regeneration. Chemical Engineering Journal, 2020, 396, 125353.	6.6	43
51	Modification of Collagen for Biomedical Applications: A Review of Physical and Chemical Methods. Current Organic Chemistry, 2016, 20, 1797-1812.	0.9	42
52	Microenvironment construction of strontiumâ€"calcium-based biomaterials for bone tissue regeneration: the equilibrium effect of calcium to strontium. Journal of Materials Chemistry B, 2018, 6, 2332-2339.	2.9	41
53	Antioxidant shape amphiphiles for accelerated wound healing. Journal of Materials Chemistry B, 2020, 8, 7018-7023.	2.9	40
54	Metal-phenolic network green flame retardants. Polymer, 2021, 221, 123627.	1.8	40

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55	Egg-White-/Eggshell-Based Biomimetic Hybrid Hydrogels for Bone Regeneration. ACS Biomaterials Science and Engineering, 2019, 5, 5384-5391.	2.6	39
56	Tofu as excellent scaffolds for potential bone regeneration. Chinese Chemical Letters, 2020, 31, 3190-3194.	4.8	39
57	Non-covalent glycosylated gold nanoparticles/peptides nanovaccine as potential cancer vaccines. Chinese Chemical Letters, 2020, 31, 1162-1164.	4.8	38
58	Tofu-Based Hybrid Hydrogels with Antioxidant and Low Immunogenicity Activity for Enhanced Wound Healing. Journal of Biomedical Nanotechnology, 2019, 15, 1371-1383.	0.5	38
59	Poly(ester amide)-based hybrid hydrogels for efficient transdermal insulin delivery. Journal of Materials Chemistry B, 2018, 6, 6723-6730.	2.9	37
60	A facile approach to fabricate load-bearing porous polymer scaffolds for bone tissue engineering. Advanced Composites and Hybrid Materials, 2022, 5, 1376-1384.	9.9	34
61	Boosting the Optical Absorption of Melanin-like Polymers. Macromolecules, 2022, 55, 3493-3501.	2.2	33
62	In vitro enzymatic degradation of a biological tissue fixed by alginate dialdehyde. Carbohydrate Polymers, 2013, 95, 148-154.	5.1	32
63	Fabrication of a novel bio-inspired collagenâ€“polydopamine hydrogel and insights into the formation mechanism for biomedical applications. RSC Advances, 2016, 6, 66180-66190.	1.7	32
64	A novel bioceramic scaffold integrating silk fibroin in calcium polyphosphate for bone tissue-engineering. Ceramics International, 2016, 42, 2386-2392.	2.3	31
65	Efficient Iron and ROS Nanoscavengers for Brain Protection after Intracerebral Hemorrhage. ACS Applied Materials & Interfaces, 2021, 13, 9729-9738.	4.0	31
66	Hybrid hydrogels with high strength and biocompatibility for bone regeneration. International Journal of Biological Macromolecules, 2017, 104, 1143-1149.	3.6	30
67	Green Nanoparticle Scavengers against Oxidative Stress. ACS Applied Materials & Interfaces, 2021, 13, 39126-39134.	4.0	30
68	Feasibility study of the naturally occurring dialdehyde carboxymethyl cellulose for biological tissue fixation. Carbohydrate Polymers, 2015, 115, 54-61.	5.1	29
69	Crosslinking effect of dialdehyde starch (DAS) on decellularized porcine aortas for tissue engineering. International Journal of Biological Macromolecules, 2015, 79, 813-821.	3.6	28
70	In vitro cytocompatibility evaluation of alginate dialdehyde for biological tissue fixation. Carbohydrate Polymers, 2013, 92, 448-454.	5.1	27
71	Stimulations of strontium-doped calcium polyphosphate for bone tissue engineering to protein secretion and mRNA expression of the angiogenic growth factors from endothelial cells in vitro. Ceramics International, 2014, 40, 6999-7005.	2.3	27
72	Egg white as a natural and safe biomaterial for enhanced cancer therapy. Chinese Chemical Letters, 2021, 32, 1737-1742.	4.8	27

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73	Application of strontium doped calcium polyphosphate bioceramic as scaffolds for bone tissue engineering. Ceramics International, 2013, 39, 8945-8954.	2.3	26
74	Effects of strontium-doped calcium polyphosphate on angiogenic growth factors expression of co-culturing system in vitro and of host cell in vivo. RSC Advances, 2014, 4, 2783-2792.	1.7	26
75	Evaluation of tofu as a potential tissue engineering scaffold. Journal of Materials Chemistry B, 2018, 6, 1328-1334.	2.9	26
76	A quantitative comparable study on multi-hierarchy conformation of acid and pepsin-solubilized collagens from the skin of grass carp (Ctenopharyngodon idella). Materials Science and Engineering C, 2019, 96, 446-457.	3.8	26
77	Enhanced osseointegration of double network hydrogels via calcium polyphosphate incorporation for bone regeneration. International Journal of Biological Macromolecules, 2020, 151, 1126-1132.	3.6	26
78	Long-term and oxidative-responsive alginateâ€“deferoxamine conjugates with a low toxicity for iron overload. RSC Advances, 2016, 6, 32471-32479.	1.7	25
79	Natural lotus root-based scaffolds for bone regeneration. Chinese Chemical Letters, 2022, 33, 1941-1945.	4.8	23
80	Biomimetic Gelatin Methacrylate/Nano Fish Bone Hybrid Hydrogel for Bone Regeneration via Osteoimmunomodulation. ACS Biomaterials Science and Engineering, 2020, 6, 3270-3274.	2.6	22
81	Strontium-doped calcium polyphosphate/ultrahigh molecular weight polyethylene composites: A new class of artificial joint components with enhanced biological efficacy to aseptic loosening. Materials Science and Engineering C, 2016, 61, 526-533.	3.8	21
82	Enhanced Osteoconductivity and Osseointegration in Calcium Polyphosphate Bioceramic Scaffold via Lithium Doping for Bone Regeneration. ACS Biomaterials Science and Engineering, 2019, 5, 5872-5880.	2.6	21
83	Internalization, cytotoxicity, oxidative stress and inflammation of multi-walled carbon nanotubes in human endothelial cells: influence of pre-incubation with bovine serum albumin. RSC Advances, 2018, 8, 9253-9260.	1.7	20
84	Advances in Long-Circulating Drug Delivery Strategy. Current Drug Metabolism, 2018, 19, 750-758.	0.7	20
85	Cell-mediated degradation of strontium-doped calcium polyphosphate scaffold for bone tissue engineering. Biomedical Materials (Bristol), 2012, 7, 065007.	1.7	19
86	The inhibitory effect of strontium-doped calcium polyphosphate particles on cytokines from macrophages and osteoblasts leading to aseptic loosening<i>in vitro</i>. Biomedical Materials (Bristol), 2014, 9, 025010.	1.7	19
87	Insights into the rheological behaviors evolution of alginate dialdehyde crosslinked collagen solutions evaluated by numerical models. Materials Science and Engineering C, 2017, 78, 727-737.	3.8	19
88	Bioinspired, Artificial, Small-Diameter Vascular Grafts with Selective and Rapid Endothelialization Based on an Amniotic Membrane-Derived Hydrogel. ACS Biomaterials Science and Engineering, 2020, 6, 1603-1613.	2.6	19
89	Propolis inspired sunscreens for efficient UV-protection and skin barrier maintenance. Nano Research, 2022, 15, 8237-8246.	5.8	19
90	H2O2-Responsive Nanoparticle Based on the Supramolecular Self-Assemble of Cyclodextrin. Frontiers in Pharmacology, 2018, 9, 552.	1.6	17

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91	Interactions of oligochitosan with blood components. International Journal of Biological Macromolecules, 2019, 124, 304-313.	3.6	17
92	Evaluation of alginate dialdehyde as a suitable crosslinker on modifying porcine acellular dermal matrix: The aggregation of collagenous fibers. Journal of Applied Polymer Science, 2016, 133, .	1.3	16
93	Synthesis and evaluation of oxidation-responsive alginate-deferoxamine conjugates with increased stability and low toxicity. Carbohydrate Polymers, 2016, 144, 522-530.	5.1	15
94	Targeted nanoparticles for head and neck cancers: overview and perspectives. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2017, 9, e1469.	3.3	15
95	l-Arginine/nanofish bone nanocomplex enhances bone regeneration via antioxidant activities and osteoimmunomodulatory properties. Chinese Chemical Letters, 2021, 32, 234-238.	4.8	14
96	Carrier-Free Deferoxamine Nanoparticles against Iron Overload in Brain. CCS Chemistry, 2023, 5, 257-270.	4.6	14
97	Biocompatibility of genipin-fixed porcine aorta as a possible esophageal prosthesis. Materials Science and Engineering C, 2011, 31, 1593-1601.	3.8	13
98	Tofu-Incorporated Hydrogels for Potential Bone Regeneration. ACS Biomaterials Science and Engineering, 2020, 6, 3037-3045.	2.6	13
99	Superabsorbent poly(acrylic acid) and antioxidant poly(ester amide) hybrid hydrogel for enhanced wound healing. International Journal of Energy Production and Management, 2021, 8, rbaa059.	1.9	13
100	pH-sensitive ternary nanoparticles for nonviral gene delivery. RSC Advances, 2015, 5, 44291-44298.	1.7	11
101	Iron-doped brushite bone cement scaffold with enhanced osteoconductivity and antimicrobial properties for jaw regeneration. Ceramics International, 2021, 47, 25810-25820.	2.3	11
102	A novel mode of DNA assembly at electrode and its application to protein quantification. Analytica Chimica Acta, 2018, 1029, 24-29.	2.6	10
103	Biocompatibility and safety evaluation of a silk fibroin-doped calcium polyphosphate scaffold copolymer in vitro and in vivo. RSC Advances, 2017, 7, 46036-46044.	1.7	9
104	Double-Layer Microsphere Incorporated with Strontium Doped Calcium Polyphosphate Scaffold for Bone Regeneration. Journal of Biomedical Nanotechnology, 2019, 15, 1223-1231.	0.5	9
105	Advances of proteomics technologies for multidrug-resistant mechanisms. Future Medicinal Chemistry, 2019, 11, 2573-2593.	1.1	8
106	Controlled drug release from a novel drug carrier of calcium polyphosphate/chitosan/aldehyde alginate scaffolds containing chitosan microspheres. RSC Advances, 2014, 4, 24810.	1.7	7
107	Reinforcement of a new calcium phosphate cement with dopamine-mediated strontium-doped calcium polyphosphate-modified polycaprolactone fibers. RSC Advances, 2016, 6, 107001-107010.	1.7	6
108	Introducing copper and collagen (<i>via</i> poly(DOPA)) coating to activate inert ceramic scaffolds for excellent angiogenic and osteogenic capacity. RSC Advances, 2018, 8, 15575-15586.	1.7	6

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109	Development of Arg-Based Biodegradable Poly(ester urea) Urethanes and Its Biomedical Application for Bone Repair. Journal of Biomedical Nanotechnology, 2019, 15, 1909-1922.	0.5	5
110	Cysteineâ€Based Biomaterials as Drug Nanocarriers. Advanced Therapeutics, 2020, 3, 1900142.	1.6	5
111	Preparation and properties of plasma sprayed strontium-doped calcium polyphosphate coating for bone tissue engineering. Ceramics International, 2014, 40, 805-809.	2.3	3
112	Effects of pH on the alginate dialdehyde (ADA)-crosslinking of natural biological tissues and in vitro study of the endothelial cell compatibility of ADA-crosslinked biological tissues. RSC Advances, 2016, 6, 24527-24535.	1.7	3