Kunyu Zhang

List of Publications by Year
in descending order

32 papers	2,371 citations	236833 25 h-index	414303 32 g-index
33 all docs	33 docs citations	33 times ranked	3473 citing authors

#	Article	IF	Citations
1	Injectable stem cell-laden supramolecular hydrogels enhance in situ osteochondral regeneration via the sustained co-delivery of hydrophilic and hydrophobic chondrogenic molecules. Biomaterials, 2019, 210, 51-61.	5.7	179
2	Dynamic and Cell-Infiltratable Hydrogels as Injectable Carrier of Therapeutic Cells and Drugs for Treating Challenging Bone Defects. ACS Central Science, 2019, 5, 440-450.	5.3	166
3	Structurally Dynamic Hydrogels for Biomedical Applications: Pursuing a Fine Balance between Macroscopic Stability and Microscopic Dynamics. Chemical Reviews, 2021, 121, 11149-11193.	23.0	161
4	Application of conductive PPy/SF composite scaffold and electrical stimulation for neural tissue engineering. Biomaterials, 2020, 255, 120164.	5.7	151
5	Bioadhesive hydrogels demonstrating pH-independent and ultrafast gelation promote gastric ulcer healing in pigs. Science Translational Medicine, 2020, 12, .	5.8	147
6	Adaptable Hydrogels Mediate Cofactorâ€Assisted Activation of Biomarkerâ€Responsive Drug Delivery via Positive Feedback for Enhanced Tissue Regeneration. Advanced Science, 2018, 5, 1800875.	5.6	141
7	Sulfated hyaluronic acid hydrogels with retarded degradation and enhanced growth factor retention promote hMSC chondrogenesis and articular cartilage integrity with reduced hypertrophy. Acta Biomaterialia, 2017, 53, 329-342.	4.1	136
8	Organic Semiconducting Polymer Nanoparticles for Photoacoustic Labeling and Tracking of Stem Cells in the Second Near-Infrared Window. ACS Nano, 2018, 12, 12201-12211.	7.3	127
9	Nanocomposite hydrogels stabilized by self-assembled multivalent bisphosphonate-magnesium nanoparticles mediate sustained release of magnesium ion and promote in-situ bone regeneration. Acta Biomaterialia, 2017, 64, 389-400.	4.1	117
10	Selfâ€Assembled Injectable Nanocomposite Hydrogels Stabilized by Bisphosphonateâ€Magnesium (Mg²⁺) Coordination Regulates the Differentiation of Encapsulated Stem Cells via Dual Crosslinking. Advanced Functional Materials, 2017, 27, 1701642.	7.8	110
11	Enhanced mechanosensing of cells in synthetic 3D matrix with controlled biophysical dynamics. Nature Communications, 2021, 12, 3514.	5.8	92
12	Immunoregulation of macrophages by dynamic ligand presentation via ligandâ€"cation coordination. Nature Communications, 2019, 10, 1696.	5.8	84
13	Near-infrared light-triggered release of small molecules for controlled differentiation and long-term tracking of stem cells inÂvivo using upconversion nanoparticles. Biomaterials, 2016, 110, 1-10.	5.7	77
14	Near-infrared light-controlled regulation of intracellular calcium to modulate macrophage polarization. Biomaterials, 2018, 178, 681-696.	5.7	71
15	One-pot solvent exchange preparation of non-swellable, thermoplastic, stretchable and adhesive supramolecular hydrogels based on dual synergistic physical crosslinking. NPG Asia Materials, 2018, 10, e455-e455.	3.8	59
16	Remote Control of Intracellular Calcium Using Upconversion Nanotransducers Regulates Stem Cell Differentiation In Vivo. Advanced Functional Materials, 2018, 28, 1802642.	7.8	58
17	Highly Enantioselective Hydrogenation of Steric Hindrance Enones Catalyzed by Ru Complexes with Chiral Diamine and Achiral Phosphane. Organic Letters, 2014, 16, 3912-3915.	2.4	51
18	Multifunctional Quantum Dot Nanoparticles for Effective Differentiation and Longâ€Term Tracking of Human Mesenchymal Stem Cells In Vitro and In Vivo. Advanced Healthcare Materials, 2016, 5, 1049-1057.	3.9	50

#	Article	IF	Citations
19	Supramolecular hydrogels cross-linked by preassembled hostâ€“guest PEG cross-linkers resist excessive, ultrafast, and non-resting cyclic compression. NPG Asia Materials, 2018, 10, 788-799.	3.8	50
20	Highly Dynamic Nanocomposite Hydrogels Selfâ€Assembled by Metal Ionâ€Ligand Coordination. Small, 2019, 15, e1900242.	5.2	45
21	An In Situ Reversible Heterodimeric Nanoswitch Controlled by Metalâ€Ionâ€“Ligand Coordination Regulates the Mechanosensing and Differentiation of Stem Cells. Advanced Materials, 2018, 30, e1803591.	11.1	44
22	Nanocarrierâ€Mediated Codelivery of Small Molecular Drugs and siRNA to Enhance Chondrogenic Differentiation and Suppress Hypertrophy of Human Mesenchymal Stem Cells. Advanced Functional Materials, 2016, 26, 2463-2472.	7.8	42
23	A 3D Fiberâ€Hydrogel Based Nonâ€Viral Gene Delivery Platform Reveals that microRNAs Promote Axon Regeneration and Enhance Functional Recovery Following Spinal Cord Injury. Advanced Science, 2021, 8, e2100805.	5.6	42
24	Efficient catechol functionalization of biopolymeric hydrogels for effective multiscale bioadhesion. Materials Science and Engineering C, 2019, 103, 109835.	3.8	34
25	Localized delivery of CRISPR/dCas9 via layer-by-layer self-assembling peptide coating on nanofibers for neural tissue engineering. Biomaterials, 2020, 256, 120225.	5.7	32
26	Bisphosphonate-based hydrogel mediates biomimetic negative feedback regulation of osteoclastic activity to promote bone regeneration. Bioactive Materials, 2022, 13, 9-22.	8.6	26
27	Bio-based (co)polylactide-urethane networks with shape memory behavior at body temperature. RSC Advances, 2016, 6, 79268-79274.	1.7	22
28	Optical Âµ-Printing of Cellular-Scale Microscaffold Arrays for 3D Cell Culture. Scientific Reports, 2017, 7, 8880.	1.6	22
29	Functional heterogeneity of IFN-Î³â€“licensed mesenchymal stromal cell immunosuppressive capacity on biomaterials. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	14
30	Surface decoration of development-inspired synthetic N-cadherin motif via Ac-BP promotes osseointegration of metal implants. Bioactive Materials, 2021, 6, 1353-1364.	8.6	10
31	Conductive biocomposite hydrogels with multiple biophysical cues regulate schwann cell behaviors. Journal of Materials Chemistry B, 2022, 10, 1582-1590.	2.9	9
32	A laser microdissection-based axotomy model incorporating the use of biomimicking fiber scaffolds reveals that microRNAs promote axon regeneration over long injury distances. Biomaterials Science, 2020, 8, 6286-6300.	2.6	2