

Hongyuan Zhu

List of Publications by Year in descending order

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Version: 2024-02-01

55
papers

4,218
citations

159585

30
h-index

161849

54
g-index

55
all docs

55
docs citations

55
times ranked

7369
citing authors

#	ARTICLE	IF	CITATIONS
1	Functional and Biomimetic Materials for Engineering of the Three-Dimensional Cell Microenvironment. <i>Chemical Reviews</i> , 2017, 117, 12764-12850.	47.7	582
2	Inkjet printing of upconversion nanoparticles for anti-counterfeit applications. <i>Nanoscale</i> , 2015, 7, 4423-4431.	5.6	318
3	Recent advances in synthesis and surface modification of lanthanide-doped upconversion nanoparticles for biomedical applications. <i>Biotechnology Advances</i> , 2012, 30, 1551-1561.	11.7	285
4	Upconversion nanoparticles based FRET aptasensor for rapid and ultrasensitive bacteria detection. <i>Biosensors and Bioelectronics</i> , 2017, 90, 525-533.	10.1	263
5	Household Fluorescent Lateral Flow Strip Platform for Sensitive and Quantitative Prognosis of Heart Failure Using Dual-Color Upconversion Nanoparticles. <i>ACS Nano</i> , 2017, 11, 6261-6270.	14.6	262
6	Advances in digital polymerase chain reaction (dPCR) and its emerging biomedical applications. <i>Biosensors and Bioelectronics</i> , 2017, 90, 459-474.	10.1	209
7	Three-dimensional quick response code based on inkjet printing of upconversion fluorescent nanoparticles for drug anti-counterfeiting. <i>Nanoscale</i> , 2016, 8, 10096-10104.	5.6	205
8	Distance-Dependent Plasmon-Enhanced Fluorescence of Upconversion Nanoparticles using Polyelectrolyte Multilayers as Tunable Spacers. <i>Scientific Reports</i> , 2015, 5, 7779.	3.3	171
9	3D Spatiotemporal Mechanical Microenvironment: A Hydrogel-Based Platform for Guiding Stem Cell Fate. <i>Advanced Materials</i> , 2018, 30, e1705911.	21.0	162
10	Oligonucleotide-linked gold nanoparticle aggregates for enhanced sensitivity in lateral flow assays. <i>Lab on A Chip</i> , 2013, 13, 4352.	6.0	157
11	Paper: A promising material for human-friendly functional wearable electronics. <i>Materials Science and Engineering Reports</i> , 2017, 112, 1-22.	31.8	128
12	A review of heat transfer in human tooth—Experimental characterization and mathematical modeling. <i>Dental Materials</i> , 2010, 26, 501-513.	3.5	100
13	Electrospun polymeric micro/nanofibrous scaffolds for long-term drug release and their biomedical applications. <i>Drug Discovery Today</i> , 2017, 22, 1351-1366.	6.4	99
14	Bioprinting-Based PDLSC-ECM Screening for in Vivo Repair of Alveolar Bone Defect Using Cell-Laden, Injectable and Photocrosslinkable Hydrogels. <i>ACS Biomaterials Science and Engineering</i> , 2017, 3, 3534-3545.	5.2	98
15	Theranostics of Triple-Negative Breast Cancer Based on Conjugated Polymer Nanoparticles. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 10634-10646.	8.0	72
16	CD44 is a direct target of miR-199a-3p and contributes to aggressive progression in osteosarcoma. <i>Scientific Reports</i> , 2015, 5, 11365.	3.3	71
17	Cellular mechanosensing of the biophysical microenvironment: A review of mathematical models of biophysical regulation of cell responses. <i>Physics of Life Reviews</i> , 2017, 22-23, 88-119.	2.8	67
18	Facial Layer-by-Layer Engineering of Upconversion Nanoparticles for Gene Delivery: Near-Infrared-Initiated Fluorescence Resonance Energy Transfer Tracking and Overcoming Drug Resistance in Ovarian Cancer. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 7941-7949.	8.0	64

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19	Synthesis of upconversion NaYF ₄ :Yb ³⁺ ,Er ³⁺ particles with enhanced luminescent intensity through control of morphology and phase. <i>Journal of Materials Chemistry C</i> , 2014, 2, 3671-3676.	5.5	62
20	Advances in the understanding of nanomaterialâ€“biomembrane interactions and their mathematical and numerical modeling. <i>Nanomedicine</i> , 2013, 8, 995-1011.	3.3	52
21	Spatiotemporally Controlled Photoresponsive Hydrogels: Design and Predictive Modeling from Processing through Application. <i>Advanced Functional Materials</i> , 2020, 30, 2000639.	14.9	51
22	Engineering the Cell Microenvironment Using Novel Photoresponsive Hydrogels. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 12374-12389.	8.0	48
23	Fluid Mechanics in Dentinal Microtubules Provides Mechanistic Insights into the Difference between Hot and Cold Dental Pain. <i>PLoS ONE</i> , 2011, 6, e18068.	2.5	46
24	Labeling and long-term tracking of bone marrow mesenchymal stem cells in vitro using NaYF ₄ :Yb ³⁺ ,Er ³⁺ upconversion nanoparticles. <i>Acta Biomaterialia</i> , 2016, 42, 199-208.	8.3	46
25	Microstructure and mechanical properties of C/Câ€“SiC composites fabricated by a rapid processing method. <i>Journal of the European Ceramic Society</i> , 2009, 29, 3091-3097.	5.7	44
26	Near-infrared light activated delivery platform for cancer therapy. <i>Advances in Colloid and Interface Science</i> , 2015, 226, 123-137.	14.7	42
27	Mechanics-driven nuclear localization of YAP can be reversed by N-cadherin ligation in mesenchymal stem cells. <i>Nature Communications</i> , 2021, 12, 6229.	12.8	40
28	Lanthanide-Doped Nanoparticles for Diagnostic Sensing. <i>Nanomaterials</i> , 2017, 7, 411.	4.1	39
29	Non-invasive tracking of hydrogel degradation using upconversion nanoparticles. <i>Acta Biomaterialia</i> , 2017, 55, 410-419.	8.3	38
30	Enhancement of Cerenkov Luminescence Imaging by Dual Excitation of Er ³⁺ , Yb ³⁺ -Doped Rare-Earth Microparticles. <i>PLoS ONE</i> , 2013, 8, e77926.	2.5	36
31	Coarse-grained molecular dynamics studies of the translocation mechanism of polyarginines across asymmetric membrane under tension. <i>Scientific Reports</i> , 2015, 5, 12808.	3.3	34
32	Advances in studies of nanoparticleâ€“biomembrane interactions. <i>Nanomedicine</i> , 2015, 10, 121-141.	3.3	31
33	An Integrated Stochastic Model of Matrix-Stiffness-Dependent Filopodial Dynamics. <i>Biophysical Journal</i> , 2016, 111, 2051-2061.	0.5	30
34	Selective enhancement of red emission from upconversion nanoparticles via surface plasmon-coupled emission. <i>RSC Advances</i> , 2015, 5, 76825-76835.	3.6	27
35	Fabrication of Microscale Hydrogels with Tailored Microstructures based on Liquid Bridge Phenomenon. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 11134-11140.	8.0	26
36	Synergistic Effect of Matrix Stiffness and Inflammatory Factors on Osteogenic Differentiation of MSC. <i>Biophysical Journal</i> , 2019, 117, 129-142.	0.5	25

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37	Molecular analysis of interactions between dendrimers and asymmetric membranes at different transport stages. <i>Soft Matter</i> , 2014, 10, 139-148.	2.7	24
38	Analysis of thermal-induced dentinal fluid flow and its implications in dental thermal pain. <i>Archives of Oral Biology</i> , 2011, 56, 846-854.	1.8	18
39	Microbubble embedded with upconversion nanoparticles as a bimodal contrast agent for fluorescence and ultrasound imaging. <i>Nanotechnology</i> , 2015, 26, 345601.	2.6	17
40	Molecular analysis of interactions between a PAMAM dendrimer and paclitaxel conjugate and a biomembrane. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 29507-29517.	2.8	16
41	The relationship between thiol-acrylate photopolymerization kinetics and hydrogel mechanics: An improved model incorporating photobleaching and thiol-Michael addition. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2018, 88, 160-169.	3.1	16
42	A modified energy transfer model for determination of upconversion emission of $\text{Yb}^{3+}/\text{Er}^{3+}$ -NaYF ₄ : Role of self-quenching effect. <i>Journal of Luminescence</i> , 2017, 185, 292-297.	3.1	15
43	Influences of supra-physiological temperatures on microstructure and mechanical properties of skin tissue. <i>Medical Engineering and Physics</i> , 2012, 34, 1149-1156.	1.7	13
44	Advances in experimental approaches for investigating cell aggregate mechanics. <i>Acta Mechanica Solida Sinica</i> , 2012, 25, 473-482.	1.9	11
45	Fabrication of fluorescent composite hydrogel using in situ synthesis of upconversion nanoparticles. <i>Nanotechnology</i> , 2017, 28, 175702.	2.6	10
46	In vitro investigation of heat transfer in human tooth. <i>Proceedings of SPIE</i> , 2009, , .	0.8	9
47	Modeling the mechanics, kinetics, and network evolution of photopolymerized hydrogels. <i>Journal of the Mechanics and Physics of Solids</i> , 2020, 142, 104041.	4.8	9
48	Reaction-induced swelling of ionic gels. <i>Soft Matter</i> , 2015, 11, 449-455.	2.7	7
49	Experimental and simulation studies of polyarginines across the membrane of giant unilamellar vesicles. <i>RSC Advances</i> , 2016, 6, 30454-30459.	3.6	7
50	Melting Away Pain: Decay of Thermal Nociceptor Transduction during Heat-Induced Irreversible Desensitization of Ion Channels. <i>ACS Biomaterials Science and Engineering</i> , 2017, 3, 3029-3035.	5.2	4
51	The race to the nociceptor: mechanical versus temperature effects in thermal pain of dental neurons. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2017, 33, 260-266.	3.4	4
52	Influence of the Porosity of C/C on the Characterization of C/C-SiC Composites Prepared by Reactive Melt Infiltration Method. <i>Materials Science Forum</i> , 2009, 620-622, 371-374.	0.3	3
53	Fountain streaming contributes to fast tip-growth through regulating the gradients of turgor pressure and concentration in pollen tubes. <i>Soft Matter</i> , 2017, 13, 2919-2927.	2.7	3
54	Energetics: An emerging frontier in cellular mechanosensing. <i>Physics of Life Reviews</i> , 2017, 22-23, 130-135.	2.8	2

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55	Anomalous Loss of Stiffness with Increasing Reinforcement in a Photo-Activated Nanocomposite. <i>Macromolecular Rapid Communications</i> , 2021, 42, 2100147.	3.9	0