Qiang Lu

List of Publications by Year
in descending order

103 papers	6,141 citations	66234 42 h-index	71532 76 g-index
105 all docs	105 docs citations	105 times ranked	5931 citing authors

#	Article	IF	Citations
1	Exploration of sea anemone-inspired high-performance biomaterials with enhanced antioxidant activity. Bioactive Materials, 2022, 10, 504-514.	8.6	9
2	Nerve Growth Factor-Laden Anisotropic Silk Nanofiber Hydrogels to Regulate Neuronal/Astroglial Differentiation for Scarless Spinal Cord Repair. ACS Applied Materials & Interfaces, 2022, 14, 3701-3715.	4.0	33
3	MSCâ€Laden Composite Hydrogels for Inflammation and Angiogenic Regulation for Skin Flap Repair. Advanced Therapeutics, 2022, 5, .	1.6	3
4	Silk Nanocarrier Size Optimization for Enhanced Tumor Cell Penetration and Cytotoxicity In Vitro. ACS Biomaterials Science and Engineering, 2022, 8, 140-150.	2.6	8
5	Macroporous Silk Nanofiber Cryogels with Tunable Properties. Biomacromolecules, 2022, 23, 2160-2169.	2.6	9
6	Anisotropic silk nanofiber layers as regulators of angiogenesis for optimized bone regeneration. Materials Today Bio, 2022, 15, 100283.	2.6	7
7	Engineered Tough Silk Hydrogels through Assembling Î²-Sheet Rich Nanofibers Based on a Solvent Replacement Strategy. ACS Nano, 2022, 16, 10209-10218.	7.3	23
8	Injectable silk/hydroxyapatite nanocomposite hydrogels with vascularization capacity for bone regeneration. Journal of Materials Science and Technology, 2021, 63, 172-181.	5.6	44
9	Injectable silk nanofiber hydrogels as stem cell carriers to accelerate wound healing. Journal of Materials Chemistry B, 2021, 9, 7771-7781.	2.9	16
10	Injectable Desferrioxamine-Laden Silk Nanofiber Hydrogels for Accelerating Diabetic Wound Healing. ACS Biomaterials Science and Engineering, 2021, 7, 1147-1158.	2.6	39
11	Fragile-Tough Mechanical Reversion of Silk Materials via Tuning Supramolecular Assembly. ACS Biomaterials Science and Engineering, 2021, 7, 2337-2345.	2.6	8
12	Nerve Guidance Conduits with Hierarchical Anisotropic Architecture for Peripheral Nerve Regeneration. Advanced Healthcare Materials, 2021, 10, e2100427.	3.9	38
13	Silk Biomaterials for Bone Tissue Engineering. Macromolecular Bioscience, 2021, 21, e2100153.	2.1	28
14	Short Silk Nanoribbons Decorated by Au Nanoparticles as Substrates for Sensitive and Uniform Surface-Enhanced Raman Spectroscopy Detection. ACS Applied Nano Materials, 2021, 4, 6376-6385.	2.4	4
15	Blastocyst-Inspired Hydrogels to Maintain Undifferentiation of Mouse Embryonic Stem Cells. ACS Nano, 2021, 15, 14162-14173.	7.3	8
16	Pressure-driven spreadable deferoxamine-laden hydrogels for vascularized skin flaps. Biomaterials Science, 2021, 9, 3162-3170.	2.6	12
17	Asiaticoside-laden silk nanofiber hydrogels to regulate inflammation and angiogenesis for scarless skin regeneration. Biomaterials Science, 2021, 9, 5227-5236.	2.6	39
18	Waterâ€insoluble amorphous silk fibroin scaffolds from aqueous solutions. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2020, 108, 798-808.	1.6	8

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19	Bio-inspired anisotropic polymeric heart valves exhibiting valve-like mechanical and hemodynamic behavior. Science China Materials, 2020, 63, 629-643.	3.5	12
20	Sustained release of inhibitor from bionic scaffolds for wound healing and functional regeneration. Biomaterials Science, 2020, 8, 5647-5655.	2.6	9
21	Tough Anisotropic Silk Nanofiber Hydrogels with Osteoinductive Capacity. ACS Biomaterials Science and Engineering, 2020, 6, 2357-2367.	2.6	31
22	Injectable hydrogel systems with multiple biophysical and biochemical cues for bone regeneration. Biomaterials Science, 2020, 8, 2537-2548.	2.6	50
23	3D printing-directed auxetic Kevlar aerogel architectures with multiple functionalization options. Journal of Materials Chemistry A, 2020, 8, 14243-14253.	5.2	48
24	Natural Nanofiber Shuttles for Transporting Hydrophobic Cargo into Aqueous Solutions. Biomacromolecules, 2020, 21, 1022-1030.	2.6	16
25	Microskinâ€Inspired Injectable MSCâ€Laden Hydrogels for Scarless Wound Healing with Hair Follicles. Advanced Healthcare Materials, 2020, 9, e2000041.	3.9	48
26	Microfluidic Silk Fibers with Aligned Hierarchical Microstructures. ACS Biomaterials Science and Engineering, 2020, 6, 2847-2854.	2.6	18
27	Electric field-driven building blocks for introducing multiple gradients to hydrogels. Protein and Cell, 2020, 11, 267-285.	4.8	35
28	Injectable Silk Nanofiber Hydrogels for Sustained Release of Small-Molecule Drugs and Vascularization. ACS Biomaterials Science and Engineering, 2019, 5, 4077-4088.	2.6	64
29	Subtle Regulation of Scaffold Stiffness for the Optimized Control of Cell Behavior. ACS Applied Bio Materials, 2019, 2, 3108-3119.	2.3	25
30	Concentrated Conditioned Medium-Loaded Silk Nanofiber Hydrogels with Sustained Release of Bioactive Factors To Improve Skin Regeneration. ACS Applied Bio Materials, 2019, 2, 4397-4407.	2.3	6
31	SERS Substrate with Silk Nanoribbons as Interlayer Template. ACS Applied Materials & Interfaces, 2019, 11, 42896-42903.	4.0	22
32	Injectable Silkâ€"Vaterite Composite Hydrogels with Tunable Sustained Drug Release Capacity. ACS Biomaterials Science and Engineering, 2019, 5, 6602-6609.	2.6	12
33	Structureâ€"Chemical Modification Relationships with Silk Materials. ACS Biomaterials Science and Engineering, 2019, 5, 2762-2768.	2.6	17
34	Calcium sulfate bone cements with nanoscaled silk fibroin as inducer. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2019, 107, 2611-2619.	1.6	12
35	Amorphous Silk Fibroin Nanofiber Hydrogels with Enhanced Mechanical Properties. Macromolecular Bioscience, 2019, 19, e1900326.	2.1	18
36	Silkâ€"Graphene Hybrid Hydrogels with Multiple Cues to Induce Nerve Cell Behavior. ACS Biomaterials Science and Engineering, 2019, 5, 613-622.	2.6	45

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37	Biomimetic Silk Scaffolds with an Amorphous Structure for Soft Tissue Engineering. ACS Applied Materials & Interfaces, 2018, 10, 9290-9300.	4.0	53
38	Controlling Cell Behavior on Silk Nanofiber Hydrogels with Tunable Anisotropic Structures. ACS Biomaterials Science and Engineering, 2018, 4, 933-941.	2.6	34
39	A study of the initial adhesive force of cells on silk fibroin-based materials using micropipette aspiration. International Journal of Energy Production and Management, 2018, 5, 151-157.	1.9	6
40	Bioactive silk hydrogels with tunable mechanical properties. Journal of Materials Chemistry B, 2018, 6, 2739-2746.	2.9	41
41	Anisotropic Biomimetic Silk Scaffolds for Improved Cell Migration and Healing of Skin Wounds. ACS Applied Materials & Interfaces, 2018, 10, 44314-44323.	4.0	67
42	Growth factor-free salt-leached silk scaffolds for differentiating endothelial cells. Journal of Materials Chemistry B, 2018, 6, 4308-4313.	2.9	9
43	Sonication Exfoliation of Defect-Free Graphene in Aqueous Silk Nanofiber Solutions. ACS Sustainable Chemistry and Engineering, 2018, 6, 12261-12267.	3.2	28
44	Mass Production of Biocompatible Graphene Using Silk Nanofibers. ACS Applied Materials & Interfaces, 2018, 10, 22924-22931.	4.0	40
45	Nanoscale Silkâ€"Hydroxyapatite Hydrogels for Injectable Bone Biomaterials. ACS Applied Materials & Interfaces, 2017, 9, 16913-16921.	4.0	99
46	Simulation of ECM with silk and chitosan nanocomposite materials. Journal of Materials Chemistry B, 2017, 5, 4789-4796.	2.9	23
47	Fabrication of Silk Scaffolds with Nanomicroscaled Structures and Tunable Stiffness. Biomacromolecules, 2017, 18, 2073-2079.	2.6	31
48	Silk Nanofibers as Robust and Versatile Emulsifiers. ACS Applied Materials & Interfaces, 2017, 9, 35693-35700.	4.0	20
49	Silk Biomaterials with Vascularization Capacity. Advanced Functional Materials, 2016, 26, 421-432.	7.8	96
50	Amorphous Silk Nanofiber Solutions for Fabricating Silk-Based Functional Materials. Biomacromolecules, 2016, 17, 3000-3006.	2.6	64
51	Silkâ€"Hydroxyapatite Nanoscale Scaffolds with Programmable Growth Factor Delivery for Bone Repair. ACS Applied Materials & Interfaces, 2016, 8, 24463-24470.	4.0	84
52	Direct Formation of Silk Nanoparticles for Drug Delivery. ACS Biomaterials Science and Engineering, 2016, 2, 2050-2057.	2.6	67
53	Hydrogel Assembly with Hierarchical Alignment by Balancing Electrostatic Forces. Advanced Materials Interfaces, 2016, 3, 1500687.	1.9	87
54	Injectable and pH-Responsive Silk Nanofiber Hydrogels for Sustained Anticancer Drug Delivery. ACS Applied Materials & Interfaces, 2016, 8, 17118-17126.	4.0	172

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55	Metal Oxide Nanomaterials with Nitrogenâ€Doped Grapheneâ€Silk Nanofiber Complexes as Templates. Particle and Particle Systems Characterization, 2016, 33, 286-292.	1.2	4
56	Bioactive natural proteinâ€“hydroxyapatite nanocarriers for optimizing osteogenic differentiation of mesenchymal stem cells. Journal of Materials Chemistry B, 2016, 4, 3555-3561.	2.9	35
57	Buccal Mucosa Repair with Electrospun Silk Fibroin Matrix in a Rat Model. International Journal of Artificial Organs, 2015, 38, 105-112.	0.7	20
58	Hierarchical charge distribution controls self-assembly process of silk in vitro. Frontiers of Materials Science, 2015, 9, 382-391.	1.1	14
59	Biomineralization of Stable and Monodisperse Vaterite Microspheres Using Silk Nanoparticles. ACS Applied Materials & Interfaces, 2015, 7, 1735-1745.	4.0	57
60	Silk-regulated hierarchical hollow magnetite/carbon nanocomposite spheroids for lithium-ion battery anodes. Nanotechnology, 2015, 26, 115603.	1.3	14
61	Silk scaffolds with tunable mechanical capability for cell differentiation. Acta Biomaterialia, 2015, 20, 22-31.	4.1	80
62	Design of silkâ€“vaterite microsphere systems as drug carriers with pH-responsive release behavior. Journal of Materials Chemistry B, 2015, 3, 8314-8320.	2.9	11
63	Regeneration of high-quality silk fibroin fiber by wet spinning from CaCl 2 â€“formic acid solvent. Acta Biomaterialia, 2015, 12, 139-145.	4.1	100
64	Osteoinductiveâ€nanoscaled silk/<scp>HA</scp> composite scaffolds for bone tissue engineering application. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2015, 103, 1402-1414.	1.6	38
65	A mild process to design silk scaffolds with reduced Î²-sheet structure and various topographies at the nanometer scale. Acta Biomaterialia, 2015, 13, 168-176.	4.1	57
66	Chemomechanics of ionically conductive ceramics for electrical energy conversion and storage. Journal of Electroceramics, 2014, 32, 3-27.	0.8	38
67	Biomineralization regulation by nanoâ€sized features in silk fibroin proteins: Synthesis of waterâ€dispersible nanoâ€hydroxyapatite. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2014, 102, 1720-1729.	1.6	30
68	Woven silk fabric-reinforced silk nanofibrous scaffolds for regenerating load-bearing soft tissues. Acta Biomaterialia, 2014, 10, 921-930.	4.1	73
69	One-step synthesis of biocompatible magnetite/silk fibroin coreâ€“shell nanoparticles. Journal of Materials Chemistry B, 2014, 2, 7394-7402.	2.9	26
70	Silk nanofiber hydrogels with tunable modulus to regulate nerve stem cell fate. Journal of Materials Chemistry B, 2014, 2, 6590-6600.	2.9	58
71	Nanoscale control of silks for nanofibrous scaffold formation with an improved porous structure. Journal of Materials Chemistry B, 2014, 2, 2622-2633.	2.9	41
72	Silk dissolution and regeneration at the nanofibril scale. Journal of Materials Chemistry B, 2014, 2, 3879.	2.9	98

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73	Reversible Hydrogelâ€"Solution System of Silk with High Beta-Sheet Content. Biomacromolecules, 2014, 15, 3044-3051.	2.6	110
74	Conductive Au nanowires regulated by silk fibroin nanofibers. Frontiers of Materials Science, 2014, 8, 102-105.	1.1	10
75	Silk porous scaffolds with nanofibrous microstructures and tunable properties. Colloids and Surfaces B: Biointerfaces, 2014, 120, 28-37.	2.5	39
76	Bilayered vascular grafts based on silk proteins. Acta Biomaterialia, 2013, 9, 8991-9003.	4.1	91
77	Hierarchical biomineralization of calcium carbonate regulated by silk microspheres. Acta Biomaterialia, 2013, 9, 6974-6980.	4.1	51
78	Controllable transition of silk fibroin nanostructures: An insight into in vitro silk self-assembly process. Acta Biomaterialia, 2013, 9, 7806-7813.	4.1	99
79	Control of Olfactory Ensheathing Cell Behaviors by Electrospun Silk Fibroin Fibers. Cell Transplantation, 2013, 22, 39-50.	1.2	19
80	Flexibility Regeneration of Silk Fibroin in Vitro. Biomacromolecules, 2012, 13, 2148-2153.	2.6	63
81	Mechanisms and Control of Silk-Based Electrospinning. Biomacromolecules, 2012, 13, 798-804.	2.6	119
82	Silk Self-Assembly Mechanisms and Control From Thermodynamics to Kinetics. Biomacromolecules, 2012, 13, 826-832.	2.6	180
83	Salt-Leached Silk Scaffolds with Tunable Mechanical Properties. Biomacromolecules, 2012, 13, 3723-3729.	2.6	88
84	Gold nanoclusters as contrast agents for fluorescent and X-ray dual-modality imaging. Journal of Colloid and Interface Science, 2012, 372, 239-244.	5.0	66
85	Nanoscale control of silks for regular hydroxyapatite formation. Progress in Natural Science: Materials International, 2012, 22, 115-119.	1.8	9
86	Degradation Mechanism and Control of Silk Fibroin. Biomacromolecules, 2011, 12, 1080-1086.	2.6	260
87	Surface immobilization of antibody on silk fibroin through conformational transition. Acta Biomaterialia, 2011, 7, 2782-2786.	4.1	20
88	Silk fibroin electrogelation mechanisms. Acta Biomaterialia, 2011, 7, 2394-2400.	4.1	128
89	Nanofibrous architecture of silk fibroin scaffolds prepared with a mild self-assembly process. Biomaterials, 2011, 32, 1059-1067.	5.7	108
90	Electrogelation for Protein Adhesives. Advanced Materials, 2010, 22, 711-715.	11.1	168

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91	Green Process to Prepare Silk Fibroin/Gelatin Biomaterial Scaffolds. Macromolecular Bioscience, 2010, 10, 289-298.	2.1	77
92	Stabilization and Release of Enzymes from Silk Films. Macromolecular Bioscience, 2010, 10, 359-368.	2.1	127
93	Silk nanospheres and microspheres from silk/pva blend films for drug delivery. Biomaterials, 2010, 31, 1025-1035.	5.7	372
94	Water-insoluble silk films with silk I structure. Acta Biomaterialia, 2010, 6, 1380-1387.	4.1	530
95	Insoluble and Flexible Silk Films Containing Glycerol. Biomacromolecules, 2010, 11, 143-150.	2.6	187
96	Biomaterials from Ultrasonication-Induced Silk Fibroinâ˜Hyaluronic Acid Hydrogels. Biomacromolecules, 2010, 11, 3178-3188.	2.6	168
97	Growth of fibroblast and vascular smooth muscle cells in fibroin/collagen scaffold. Materials Science and Engineering C, 2009, 29, 2239-2245.	3.8	23
98	Microphase Separation Controlled Î²-Sheet Crystallization Kinetics in Fibrous Proteins. Macromolecules, 2009, 42, 2079-2087.	2.2	64
99	Stabilization of Enzymes in Silk Films. Biomacromolecules, 2009, 10, 1032-1042.	2.6	174
100	Preparation of three-dimensional fibroin/collagen scaffolds in various pH conditions. Journal of Materials Science: Materials in Medicine, 2008, 19, 629-634.	1.7	36
101	Cytocompatibility and blood compatibility of multifunctional fibroin/collagen/heparin scaffolds. Biomaterials, 2007, 28, 2306-2313.	5.7	92
102	Solvothermal synthesis of crystalline carbon nitrides. Science Bulletin, 2003, 48, 519.	1.7	4
103	Release of water and hydrogen during outgassing of some materials. Journal of Materials Engineering and Performance, 1996, 5, 516-520.	1.2	20