

# Wenwen Huang

## List of Publications by Citations

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42  
papers

1,795  
citations

24  
h-index

42  
g-index

43  
ext. papers

2,169  
ext. citations

10  
avg, IF

4.91  
L-index

#	Paper	IF	Citations
42	Silkworm silk-based materials and devices generated using bio-nanotechnology. <i>Chemical Society Reviews</i> , <b>2018</b> , 47, 6486-6504	58.5	206
41	Design and function of biomimetic multilayer water purification membranes. <i>Science Advances</i> , <b>2017</b> , 3, e1601939	14.3	161
40	Polymorphic regenerated silk fibers assembled through bioinspired spinning. <i>Nature Communications</i> , <b>2017</b> , 8, 1387	17.4	158
39	Lyophilized Silk Sponges: A Versatile Biomaterial Platform for Soft Tissue Engineering. <i>ACS Biomaterials Science and Engineering</i> , <b>2015</b> , 1, 260-270	5.5	120
38	Recombinant Spidroins Fully Replicate Primary Mechanical Properties of Natural Spider Silk. <i>Biomacromolecules</i> , <b>2018</b> , 19, 3853-3860	6.9	98
37	Predictive modelling-based design and experiments for synthesis and spinning of bioinspired silk fibres. <i>Nature Communications</i> , <b>2015</b> , 6, 6892	17.4	86
36	Silk-elastin-like protein biomaterials for the controlled delivery of therapeutics. <i>Expert Opinion on Drug Delivery</i> , <b>2015</b> , 12, 779-91	8	78
35	Nanocomposites of poly(vinylidene fluoride) with multiwalled carbon nanotubes. <i>Journal of Applied Polymer Science</i> , <b>2010</b> , 115, 3238-3248	2.9	58
34	Design of Multistimuli Responsive Hydrogels Using Integrated Modeling and Genetically Engineered Silk-Elastin-Like Proteins. <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 4113-4123	15.6	57
33	3D freeform printing of silk fibroin. <i>Acta Biomaterialia</i> , <b>2018</b> , 71, 379-387	10.8	51
32	High Throughput Screening of Dynamic Silk-Elastin-Like Protein Biomaterials. <i>Advanced Functional Materials</i> , <b>2014</b> , 24, 4303-4310	15.6	49
31	Tuning chemical and physical cross-links in silk electrogels for morphological analysis and mechanical reinforcement. <i>Biomacromolecules</i> , <b>2013</b> , 14, 2629-35	6.9	48
30	Charge-Tunable Silk-Tropoelastin Protein Alloys That Control Neuron Cell Responses. <i>Advanced Functional Materials</i> , <b>2013</b> , 23, 3875-3884	15.6	48
29	Rapid printing of bio-inspired 3D tissue constructs for skin regeneration. <i>Biomaterials</i> , <b>2020</b> , 258, 120287	15.6	48
28	Heat Capacity of Spider Silk-like Block Copolymers. <i>Macromolecules</i> , <b>2011</b> , 44, 5299-5309	5.5	43
27	Multiscale design and synthesis of biomimetic gradient protein/biosilica composites for interfacial tissue engineering. <i>Biomaterials</i> , <b>2017</b> , 145, 44-55	15.6	40
26	Computational smart polymer design based on elastin protein mutability. <i>Biomaterials</i> , <b>2017</b> , 127, 49-60	15.6	39

25	Physical and biological regulation of neuron regenerative growth and network formation on recombinant dragline silks. <i>Biomaterials</i> , <b>2015</b> , 48, 137-146	15.6	36
24	Thin film assembly of spider silk-like block copolymers. <i>Langmuir</i> , <b>2011</b> , 27, 1000-8	4	36
23	Synergistic Integration of Experimental and Simulation Approaches for the de Novo Design of Silk-Based Materials. <i>Accounts of Chemical Research</i> , <b>2017</b> , 50, 866-876	24.3	34
22	Stimuli-responsive composite biopolymer actuators with selective spatial deformation behavior. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2020</b> , 117, 14602-14608	11.5	29
21	Chemically Functionalized Silk for Human Bone Marrow-Derived Mesenchymal Stem Cells Proliferation and Differentiation. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 14406-13	9.5	28
20	Influence of Water on Protein Transitions: Morphology and Secondary Structure. <i>Macromolecules</i> , <b>2014</b> , 47, 8107-8114	5.5	27
19	Control of silicification by genetically engineered fusion proteins: silk-silica binding peptides. <i>Acta Biomaterialia</i> , <b>2015</b> , 15, 173-80	10.8	26
18	Effect of sequence features on assembly of spider silk block copolymers. <i>Journal of Structural Biology</i> , <b>2014</b> , 186, 412-9	3.4	23
17	3D Printing of Silk Protein Structures by Aqueous Solvent-Directed Molecular Assembly. <i>Macromolecular Bioscience</i> , <b>2020</b> , 20, e1900191	5.5	22
16	Aqueous-Based Coaxial Electrospinning of Genetically Engineered Silk Elastin Core-Shell Nanofibers. <i>Materials</i> , <b>2016</b> , 9,	3.5	19
15	Fabrication and Characterization of Recombinant Silk-Elastin-Like-Protein (SELP) Fiber. <i>Macromolecular Bioscience</i> , <b>2018</b> , 18, e1800265	5.5	18
14	Modeling and Experiment Reveal Structure and Nanomechanics across the Inverse Temperature Transition in Silk-Elastin-like Protein Polymers. <i>ACS Biomaterials Science and Engineering</i> , <b>2017</b> , 3, 2889-2899	5.5	16
13	Smart Material Hydrogel Transfer Devices Fabricated with Stimuli-Responsive Silk-Elastin-Like Proteins. <i>Advanced Healthcare Materials</i> , <b>2020</b> , 9, e2000266	10.1	15
12	Influence of Water on Protein Transitions: Thermal Analysis. <i>Macromolecules</i> , <b>2014</b> , 47, 8098-8106	5.5	15
11	Unraveling the Molecular Mechanisms of Thermo-responsive Properties of Silk-Elastin-Like Proteins by Integrating Multiscale Modeling and Experiment. <i>Journal of Materials Chemistry B</i> , <b>2018</b> , 6, 3727-3734	7.3	14
10	Tunable crystallization, degradation, and self-assembly of recombinant protein block copolymers. <i>Polymer</i> , <b>2017</b> , 117, 107-116	3.9	11
9	Effect of Terminal Modification on the Molecular Assembly and Mechanical Properties of Protein-Based Block Copolymers. <i>Macromolecular Bioscience</i> , <b>2017</b> , 17, 1700095	5.5	9
8	Thermal analysis of spider silk inspired di-block copolymers in the glass transition region by TMDSC. <i>Journal of Thermal Analysis and Calorimetry</i> , <b>2012</b> , 109, 1193-1201	4.1	9

- 7 Silk-ionomer and silk-tropoelastin hydrogels as charged three-dimensional culture platforms for the regulation of hMSC response. *Journal of Tissue Engineering and Regenerative Medicine*, **2017**, 11, 2549-2564<sup>6</sup>
- 6 Influence of Solution Parameters on Phase Diagram of Recombinant Spider Silk-Like Block Copolymers. *Macromolecular Chemistry and Physics*, **2014**, 215, 1230-1238 2.6 6
- 5 Recursive Directional Ligation Approach for Cloning Recombinant Spider Silks. *Methods in Molecular Biology*, **2018**, 1777, 181-192 1.4 4
- 4 PVDF-based Polymer Blend Films for Fuel Cell Membranes. *Materials Research Society Symposia Proceedings*, **2012**, 1384, 1 1
- 3 Biomimetic Joint Paint for Efficient Cartilage Repair by Simultaneously Regulating Cartilage Degeneration and Regeneration in Pigs. *ACS Applied Materials & Interfaces*, **2021**, 13, 54801-54816 9.5 1
- 2 Deaf and Hard of Hearing Undergraduate Interns Investigate Smart Polymeric Materials. *Materials Research Society Symposia Proceedings*, **2009**, 1233, 1
- 1 Morphology and Crystallinity Control of Novel Spider Silk-like Block Copolymer. *Materials Research Society Symposia Proceedings*, **2012**, 1417, 19