# Xiao Hu

## List of Publications by Year in Descending Order



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|---|---|---|---|
| 110 papers | 7,453 citations | 44 h-index | 86 g-index |
| 120 ext. papers | 8,532 ext. citations | 6.6 avg, IF | 6.04 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 110 | Recent Progress in Biopolymer-Based Hydrogel Materials for Biomedical Applications.. *International Journal of Molecular Sciences*, **2022**, 23, | 6.3 | 7 |
| 109 | Controlling the structure and properties of semi-crystalline cellulose/silk-fibroin biocomposites by ionic liquid type and hydrogen peroxide concentration. *Carbohydrate Polymer Technologies and Applications*, **2022**, 3, 100193 | 1.7 | |
| 108 | Bioinspired Silk Fiber Spinning System via Automated Track-Drawing.. *ACS Applied Bio Materials*, **2021**, 4, 8192-8204 | 4.1 | 1 |
| 107 | Tunable microphase-regulated silk fibroin/poly (lactic acid) biocomposite materials generated from ionic liquids.. *International Journal of Biological Macromolecules*, **2021**, 197, 55-67 | 7.9 | 0 |
| 106 | Ultrasound regulated flexible protein materials: Fabrication, structure and physical-biological properties. *Ultrasonics Sonochemistry*, **2021**, 79, 105800 | 8.9 | 1 |
| 105 | Water-annealing regulated protein-based magnetic nanofiber materials: tuning silk structure and properties to enhance cell response under magnetic fields. *Materials Today Chemistry*, **2021**, 22, 100570 | 6.2 | 0 |
| 104 | Biopolymer-Based Filtration Materials. *ACS Omega*, **2021**, 6, 11804-11812 | 3.9 | 7 |
| 103 | Chemical, Thermal, Time, and Enzymatic Stability of Silk Materials with Silk I Structure. *International Journal of Molecular Sciences*, **2021**, 22, | 6.3 | 7 |
| 102 | Air-jet spinning corn zein protein nanofibers for drug delivery: Effect of biomaterial structure and shape on release properties. *Materials Science and Engineering C*, **2021**, 118, 111419 | 8.3 | 3 |
| 101 | Dual-Crystallizable Silk Fibroin/Poly(L-lactic Acid) Biocomposite Films: Effect of Polymer Phases on Protein Structures in Protein-Polymer Blends. *International Journal of Molecular Sciences*, **2021**, 22, | 6.3 | 2 |
| 100 | Protein and Polysaccharide-Based Electroactive and Conductive Materials for Biomedical Applications. *Molecules*, **2021**, 26, | 4.8 | 4 |
| 99 | Silk-Cellulose Acetate Biocomposite Materials Regenerated from Ionic Liquid. *Polymers*, **2021**, 13, | 4.5 | 3 |
| 98 | Air-Spun Silk-Based Micro-/Nanofibers and Thin Films for Drug Delivery. *International Journal of Molecular Sciences*, **2021**, 22, | 6.3 | 1 |
| 97 | Electrospun Silk-Boron Nitride Nanofibers with Tunable Structure and Properties. *Polymers*, **2020**, 12, | 4.5 | 1 |
| 96 | Thermal analysis of natural fibers **2020**, 105-132 | | 1 |
| 95 | Recent Advances in Electrospun Sustainable Composites for Biomedical, Environmental, Energy, and Packaging Applications. *International Journal of Molecular Sciences*, **2020**, 21, | 6.3 | 24 |
| 94 | Exposure to CuO Nanoparticles Mediates NFB Activation and Enhances Amyloid Precursor Protein Expression. *Biomedicines*, **2020**, 8, | 4.8 | 7 |

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| 93 | Protein-Polysaccharide Composite Materials: Fabrication and Applications. *Polymers*, **2020**, 12, | 4.5 | 48 |
| 92 | The Impact of Composition and Morphology on Ionic Conductivity of Silk/Cellulose Bio-Composites Fabricated from Ionic Liquid and Varying Percentages of Coagulation Agents. *International Journal of Molecular Sciences*, **2020**, 21, | 6.3 | 11 |
| 91 | Facile treatment to fine-tune cellulose crystals in cellulose-silk biocomposites through hydrogen peroxide. *International Journal of Biological Macromolecules*, **2020**, 147, 569-575 | 7.9 | 9 |
| 90 | Tunable Biodegradable Polylactide-Silk Fibroin Scaffolds Fabricated by a Solvent-Free Pressure-Controllable Foaming Technology.. *ACS Applied Bio Materials*, **2020**, 3, 8795-8807 | 4.1 | 7 |
| 89 | Effects of Fiber Density and Strain Rate on the Mechanical Properties of Electrospun Polycaprolactone Nanofiber Mats. *Frontiers in Chemistry*, **2020**, 8, 610 | 5 | 11 |
| 88 | Protein-based flexible thermal conductive materials with continuous network structure: Fabrication, properties, and theoretical modeling. *Composites Part B: Engineering*, **2020**, 201, 108377 | 10 | 6 |
| 87 | Air-Jet Spun Corn Zein Nanofibers and Thin Films with Topical Drug for Medical Applications. *International Journal of Molecular Sciences*, **2020**, 21, | 6.3 | 3 |
| 86 | Protein and Polysaccharide-Based Fiber Materials Generated from Ionic Liquids: A Review. *Molecules*, **2020**, 25, | 4.8 | 12 |
| 85 | Tunable High-Molecular-Weight Silk Fibroin Polypeptide Materials: Fabrication and Self-Assembly Mechanism.. *ACS Applied Bio Materials*, **2020**, 3, 3248-3259 | 4.1 | 6 |
| 84 | Formic Acid Regenerated Mori, Tussah, Eri, Thai, and Muga Silk Materials: Mechanism of Self-Assembly. *ACS Biomaterials Science and Engineering*, **2019**, 5, 6361-6373 | 5.5 | 18 |
| 83 | Silk fibroin-poly(lactic acid) biocomposites: Effect of protein-synthetic polymer interactions and miscibility on material properties and biological responses. *Materials Science and Engineering C*, **2019**, 104, 109890 | 8.3 | 19 |
| 82 | Development of Adhesive and Conductive Resilin-Based Hydrogels for Wearable Sensors. *Biomacromolecules*, **2019**, 20, 3283-3293 | 6.9 | 38 |
| 81 | Thermal Conductivity of Protein-Based Materials: A Review. *Polymers*, **2019**, 11, | 4.5 | 20 |
| 80 | Effects of post-draw processing on the structure and functional properties of electrospun PVDF-HFP nanofibers. *Polymer*, **2019**, 171, 192-200 | 3.9 | 16 |
| 79 | Morphology and ionic conductivity relationship in silk/cellulose biocomposites. *Polymer International*, **2019**, 68, 1580-1590 | 3.3 | 7 |
| 78 | Protein and Polysaccharide-Based Magnetic Composite Materials for Medical Applications. *International Journal of Molecular Sciences*, **2019**, 21, | 6.3 | 22 |
| 77 | Mechanical Considerations for Electrospun Nanofibers in Tendon and Ligament Repair. *Advanced Healthcare Materials*, **2018**, 7, e1701277 | 10.1 | 34 |
| 76 | Protein Polymer-Based Nanoparticles: Fabrication and Medical Applications. *International Journal of Molecular Sciences*, **2018**, 19, | 6.3 | 99 |

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| 75 | Protein-Based Fiber Materials in Medicine: A Review. *Nanomaterials*, **2018**, 8, | 5.4 | 76 |
| 74 | A Hierarchical Model To Understand the Processing of Polysaccharides/Protein-Based Films in Ionic Liquids. *Biomacromolecules*, **2018**, 19, 3970-3982 | 6.9 | 19 |
| 73 | Impact of ionic liquid type on the structure, morphology and properties of silk-cellulose biocomposite materials. *International Journal of Biological Macromolecules*, **2018**, 108, 333-341 | 7.9 | 44 |
| 72 | Super-compatible functional boron nitride nanosheets/polymer films with excellent mechanical properties and ultra-high thermal conductivity for thermal management. *Journal of Materials Chemistry C*, **2018**, 6, 1363-1369 | 7.1 | 99 |
| 71 | Exploring the Structural Transformation Mechanism of Chinese and Thailand Silk Fibroin Fibers and Formic-Acid Fabricated Silk Films. *International Journal of Molecular Sciences*, **2018**, 19, | 6.3 | 13 |
| 70 | Comparative Investigation of Thermal and Structural Behavior in Renewably Sourced Composite Films of Even-Even Nylons (610 and 1010) with Silk Fibroin. *Polymers*, **2018**, 10, | 4.5 | 5 |
| 69 | Structure–property relationships of blended polysaccharide and protein biomaterials in ionic liquid. *Cellulose*, **2017**, 24, 1775-1789 | 5.5 | 12 |
| 68 | Rational Design and Hierarchical Assembly of a Genetically Engineered Resilin-Silk Copolymer Results in Stiff Hydrogels. *ACS Biomaterials Science and Engineering*, **2017**, 3, 1576-1585 | 5.5 | 18 |
| 67 | Tunable green graphene-silk biomaterials: Mechanism of protein-based nanocomposites. *Materials Science and Engineering C*, **2017**, 79, 728-739 | 8.3 | 36 |
| 66 | BN Nanosheet/Polymer Films with Highly Anisotropic Thermal Conductivity for Thermal Management Applications. *ACS Applied Materials & Interfaces*, **2017**, 9, 43163-43170 | 9.5 | 145 |
| 65 | Impact of calcium chloride concentration on structure and thermal property of Thai silk fibroin films. *Journal of Thermal Analysis and Calorimetry*, **2017**, 130, 851-859 | 4.1 | 17 |
| 64 | Structure-property relationships of Thai silk-microcrystalline cellulose biocomposite materials fabricated from ionic liquid. *International Journal of Biological Macromolecules*, **2017**, 104, 919-928 | 7.9 | 23 |
| 63 | Silk-silk blend materials. *Journal of Thermal Analysis and Calorimetry*, **2017**, 127, 915-921 | 4.1 | 10 |
| 62 | Thermal and structural analysis of silk–polyvinyl acetate blends. *Journal of Thermal Analysis and Calorimetry*, **2017**, 127, 923-929 | 4.1 | 9 |
| 61 | Protein-Based Drug-Delivery Materials. *Materials*, **2017**, 10, | 3.5 | 73 |
| 60 | Biocompatible Silk/Polymer Energy Harvesters Using Stretched Poly (vinylidene fluoride-co-hexafluoropropylene) (PVDF-HFP) Nanofibers. *Polymers*, **2017**, 9, | 4.5 | 15 |
| 59 | Protein-Based Bioelectronics. *ACS Biomaterials Science and Engineering*, **2016**, 2, 1211-1223 | 5.5 | 70 |
| 58 | Comparative Study of Ultrasonication-Induced and Naturally Self-Assembled Silk Fibroin-Wool Keratin Hydrogel Biomaterials. *International Journal of Molecular Sciences*, **2016**, 17, | 6.3 | 22 |

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| 57 | Spider Silk-CBD-Cellulose Nanocrystal Composites: Mechanism of Assembly. *International Journal of Molecular Sciences*, **2016**, 17, | 6.3 | 10 |
| 56 | Tissue Regeneration: A Silk Road. *Journal of Functional Biomaterials*, **2016**, 7, | 4.8 | 67 |
| 55 | Processing Influence on Molecular Assembling and Structural Conformations in Silk Fibroin: Elucidation by Solid-State NMR. *ACS Biomaterials Science and Engineering*, **2016**, 2, 758-767 | 5.5 | 24 |
| 54 | Concurrent collection and post-drawing of individual electrospun polymer nanofibers to enhance macromolecular alignment and mechanical properties. *Polymer*, **2016**, 103, 243-250 | 3.9 | 19 |
| 53 | Mechanical and thermal property characterization of poly-l-lactide (PLLA) scaffold developed using pressure-controllable green foaming technology. *Materials Science and Engineering C*, **2015**, 49, 612-622 | 8.3 | 29 |
| 52 | Impact of foaming air on melting and crystallization behaviors of microporous PLA scaffolds. *Journal of Thermal Analysis and Calorimetry*, **2015**, 122, 1077-1088 | 4.1 | 8 |
| 51 | Comparative studies of regenerated water-based Mori, Thai, Eri, Muga and Tussah silk fibroin films. *Journal of Thermal Analysis and Calorimetry*, **2015**, 122, 1069-1076 | 4.1 | 18 |
| 50 | Comparative thermal analysis of Eri, Mori, Muga, and Tussar silk cocoons and fibroin fibers. *Journal of Thermal Analysis and Calorimetry*, **2014**, 116, 1337-1343 | 4.1 | 29 |
| 49 | Advanced Protein Composite Materials. *ACS Symposium Series*, **2014**, 177-208 | 0.4 | 4 |
| 48 | Impact of sterilization on the enzymatic degradation and mechanical properties of silk biomaterials. *Macromolecular Bioscience*, **2014**, 14, 257-69 | 5.5 | 47 |
| 47 | Designing silk-silk protein alloy materials for biomedical applications. *Journal of Visualized Experiments*, **2014**, e50891 | 1.6 | |
| 46 | Encapsulation of oil in silk fibroin biomaterials. *Journal of Applied Polymer Science*, **2014**, 131, n/a-n/a | 2.9 | 12 |
| 45 | Film-based Implants for Supporting Neuron-Electrode Integrated Interfaces for The Brain. *Advanced Functional Materials*, **2014**, 24, 1938-1948 | 15.6 | 44 |
| 44 | Recombinant reflectin-based optical materials. *Journal of Polymer Science, Part B: Polymer Physics*, **2013**, 51, 254-264 | 2.6 | 38 |
| 43 | Charge-Tunable Silk-Tropoelastin Protein Alloys That Control Neuron Cell Responses. *Advanced Functional Materials*, **2013**, 23, 3875-3884 | 15.6 | 48 |
| 42 | Beating the heat--fast scanning melts silk beta sheet crystals. *Scientific Reports*, **2013**, 3, 1130 | 4.9 | 121 |
| 41 | Effect of silk protein processing on drug delivery from silk films. *Macromolecular Bioscience*, **2013**, 13, 311-20 | 5.5 | 54 |
| 40 | Biodegradable Films and Foam of Poly(3-Hydroxybutyrate-co-3-hydroxyvalerate) Blended with Silk Fibroin. *ACS Symposium Series*, **2013**, 251-279 | 0.4 | |

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| 39 | Stability of silk and collagen protein materials in space. *Scientific Reports*, **2013**, 3, 3428 | 4.9 | 15 |
| 38 | Impact of processing parameters on the haemocompatibility of Bombyx mori silk films. *Biomaterials*, **2012**, 33, 1017-23 | 15.6 | 60 |
| 37 | Mechanism of resilin elasticity. *Nature Communications*, **2012**, 3, 1003 | 17.4 | 109 |
| 36 | Protein-based composite materials. *Materials Today*, **2012**, 15, 208-215 | 21.8 | 204 |
| 35 | Combinatorial library of lipidoids for in vitro DNA delivery. *Bioconjugate Chemistry*, **2012**, 23, 135-40 | 6.3 | 59 |
| 34 | Flexibility regeneration of silk fibroin in vitro. *Biomacromolecules*, **2012**, 13, 2148-53 | 6.9 | 52 |
| 33 | Structure and biodegradation mechanism of milled Bombyx mori silk particles. *Biomacromolecules*, **2012**, 13, 2503-12 | 6.9 | 62 |
| 32 | Salt-leached silk scaffolds with tunable mechanical properties. *Biomacromolecules*, **2012**, 13, 3723-9 | 6.9 | 76 |
| 31 | Stabilization of vaccines and antibiotics in silk and eliminating the cold chain. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 11981-6 | 11.5 | 125 |
| 30 | Aligned silk-based 3-D architectures for contact guidance in tissue engineering. *Acta Biomaterialia*, **2012**, 8, 1530-42 | 10.8 | 77 |
| 29 | Regulation of silk material structure by temperature-controlled water vapor annealing. *Biomacromolecules*, **2011**, 12, 1686-96 | 6.9 | 434 |
| 28 | Recombinant exon-encoded resilins for elastomeric biomaterials. *Biomaterials*, **2011**, 32, 9231-43 | 15.6 | 79 |
| 27 | The influence of elasticity and surface roughness on myogenic and osteogenic-differentiation of cells on silk-elastin biomaterials. *Biomaterials*, **2011**, 32, 8979-89 | 15.6 | 168 |
| 26 | Tunable self-assembly of genetically engineered silk--elastin-like protein polymers. *Biomacromolecules*, **2011**, 12, 3844-50 | 6.9 | 170 |
| 25 | Production, structure and in vitro degradation of electrospun honeybee silk nanofibers. *Acta Biomaterialia*, **2011**, 7, 3789-95 | 10.8 | 42 |
| 24 | Effect of processing on silk-based biomaterials: reproducibility and biocompatibility. *Journal of Biomedical Materials Research - Part B Applied Biomaterials*, **2011**, 99, 89-101 | 3.5 | 227 |
| 23 | Heat Capacity of Spider Silk-like Block Copolymers. *Macromolecules*, **2011**, 44, 5299-5309 | 5.5 | 43 |
| 22 | Tunable silk: using microfluidics to fabricate silk fibers with controllable properties. *Biomacromolecules*, **2011**, 12, 1504-11 | 6.9 | 129 |

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| 21 | Single honeybee silk protein mimics properties of multi-protein silk. *PLoS ONE*, **2011**, 6, e16489 | 3.7 | 49 |
| 20 | Dielectric relaxation spectroscopy of hydrated and dehydrated silk fibroin cast from aqueous solution. *Biomacromolecules*, **2010**, 11, 2766-75 | 6.9 | 22 |
| 19 | Biomaterials from ultrasonication-induced silk fibroin-hyaluronic acid hydrogels. *Biomacromolecules* , **2010**, 11, 3178-88 | 6.9 | 141 |
| 18 | Biomaterials derived from silk-tropoelastin protein systems. *Biomaterials*, **2010**, 31, 8121-31 | 15.6 | 130 |
| 17 | Green process to prepare silk fibroin/gelatin biomaterial scaffolds. *Macromolecular Bioscience*, **2010** , 10, 289-98 | 5.5 | 70 |
| 16 | Stabilization and release of enzymes from silk films. *Macromolecular Bioscience*, **2010**, 10, 359-68 | 5.5 | 112 |
| 15 | Silk nanospheres and microspheres from silk/pva blend films for drug delivery. *Biomaterials*, **2010**, 31, 1025-35 | 15.6 | 321 |
| 14 | Controlling silk fibroin particle features for drug delivery. *Biomaterials*, **2010**, 31, 4583-91 | 15.6 | 356 |
| 13 | Water-insoluble silk films with silk I structure. *Acta Biomaterialia*, **2010**, 6, 1380-7 | 10.8 | 450 |
| 12 | Thermal analysis of protein□metallic ion systems. *Journal of Thermal Analysis and Calorimetry*, **2009**, 96, 827-834 | 4.1 | 15 |
| 11 | Microphase Separation Controlled □Sheet Crystallization Kinetics in Fibrous Proteins. *Macromolecules*, **2009**, 42, 2079-2087 | 5.5 | 59 |
| 10 | Expression, cross-linking, and characterization of recombinant chitin binding resilin. *Biomacromolecules*, **2009**, 10, 3227-34 | 6.9 | 104 |
| 9 | Stabilization of enzymes in silk films. *Biomacromolecules*, **2009**, 10, 1032-42 | 6.9 | 140 |
| 8 | Silk fibroin processing and thrombogenic responses. *Journal of Biomaterials Science, Polymer Edition*, **2009**, 20, 1875-97 | 3.5 | 47 |
| 7 | . *Macromolecules*, **2008**, 41, 3939-3948 | 5.5 | 215 |
| 6 | Heat Capacity of Silk Fibroin Based on the Vibrational Motion of Poly(amino acid)s in the Presence and Absence of Water. *Macromolecules*, **2008**, 41, 4786-4793 | 5.5 | 40 |
| 5 | Thermal properties and phase transitions in blends of Nylon-6 with silk fibroin. *Journal of Thermal Analysis and Calorimetry*, **2008**, 93, 201-206 | 4.1 | 29 |
| 4 | Effect of water on the thermal properties of silk fibroin. *Thermochimica Acta*, **2007**, 461, 137-144 | 2.9 | 142 |

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| 3 | Silk coatings on PLGA and alginate microspheres for protein delivery. *Biomaterials*, **2007**, 28, 4161-9 | 15.6 | 161 |
| 2 | Nanolayer biomaterial coatings of silk fibroin for controlled release. *Journal of Controlled Release*, **2007**, 121, 190-9 | 11.7 | 150 |
| 1 | Determining Beta-Sheet Crystallinity in Fibrous Proteins by Thermal Analysis and Infrared Spectroscopy. *Macromolecules*, **2006**, 39, 6161-6170 | 5.5 | 829 |