

Bin Xue

List of Publications by Year in descending order

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Version: 2024-02-01

75
papers

2,980
citations

126708

33
h-index

174990

52
g-index

77
all docs

77
docs citations

77
times ranked

3611
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Rationally designed synthetic protein hydrogels with predictable mechanical properties. <i>Nature Communications</i> , 2018, 9, 620. | 5.8 | 145 |
| 2 | Rigid helical-like assemblies from a self-aggregating tripeptide. <i>Nature Materials</i> , 2019, 18, 503-509. | 13.3 | 133 |
| 3 | Hierarchical construction of a mechanically stable peptide-graphene oxide hybrid hydrogel for drug delivery and pulsatile triggered release in vivo. <i>Nanoscale</i> , 2015, 7, 1655-1660. | 2.8 | 131 |
| 4 | Stretchable hydrogels with low hysteresis and anti-fatigue fracture based on polyprotein cross-linkers. <i>Nature Communications</i> , 2020, 11, 4032. | 5.8 | 129 |
| 5 | Hydrogel tapes for fault-tolerant strong wet adhesion. <i>Nature Communications</i> , 2021, 12, 7156. | 5.8 | 122 |
| 6 | Molecular engineering of metal coordination interactions for strong, tough, and fast-recovery hydrogels. <i>Science Advances</i> , 2020, 6, eaaz9531. | 4.7 | 111 |
| 7 | Polymer-Supramolecular Polymer Double-Network Hydrogel. <i>Advanced Functional Materials</i> , 2016, 26, 9044-9052. | 7.8 | 106 |
| 8 | Electrically Controllable Actuators Based on Supramolecular Peptide Hydrogels. <i>Advanced Functional Materials</i> , 2016, 26, 9053-9062. | 7.8 | 102 |
| 9 | Reversible hydrogels with tunable mechanical properties for optically controlling cell migration. <i>Nano Research</i> , 2018, 11, 5556-5565. | 5.8 | 91 |
| 10 | Self-Assembly of Aromatic Amino Acid Enantiomers into Supramolecular Materials of High Rigidity. <i>ACS Nano</i> , 2020, 14, 1694-1706. | 7.3 | 86 |
| 11 | Living materials fabricated via gradient mineralization of light-inducible biofilms. <i>Nature Chemical Biology</i> , 2021, 17, 351-359. | 3.9 | 85 |
| 12 | Bioinspired Stable and Photoluminescent Assemblies for Power Generation. <i>Advanced Materials</i> , 2019, 31, e1807481. | 11.1 | 82 |
| 13 | Engineering Protein Hydrogels Using SpyCatcher-SpyTag Chemistry. <i>Biomacromolecules</i> , 2016, 17, 2812-2819. | 2.6 | 75 |
| 14 | Stable and optoelectronic dipeptide assemblies for power harvesting. <i>Materials Today</i> , 2019, 30, 10-16. | 8.3 | 62 |
| 15 | Tunable Mechanical and Optoelectronic Properties of Organic Cocrystals by Unexpected Stacking Transformation from H- to J- and X-Aggregation. <i>ACS Nano</i> , 2020, 14, 10704-10715. | 7.3 | 61 |
| 16 | Diphenylalanine-Derivative Peptide Assemblies with Increased Aromaticity Exhibit Metal-like Rigidity and High Piezoelectricity. <i>ACS Nano</i> , 2020, 14, 7025-7037. | 7.3 | 59 |
| 17 | 100th Anniversary of Macromolecular Science Viewpoint: Synthetic Protein Hydrogels. <i>ACS Macro Letters</i> , 2020, 9, 512-524. | 2.3 | 58 |
| 18 | Printable Fluorescent Hydrogels Based on Self-Assembling Peptides. <i>Scientific Reports</i> , 2017, 7, 9691. | 1.6 | 49 |

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 19 | Spray-Painted Hydrogel Coating for Marine Antifouling. <i>Advanced Materials Technologies</i> , 2021, 6, 2000911. | 3.0 | 49 |
| 20 | Guest Molecule-Mediated Energy Harvesting in a Conformationally Sensitive Peptide-Metal Organic Framework. <i>Journal of the American Chemical Society</i> , 2022, 144, 3468-3476. | 6.6 | 49 |
| 21 | Rigid Tightly Packed Amino Acid Crystals as Functional Supramolecular Materials. <i>ACS Nano</i> , 2019, 13, 14477-14485. | 7.3 | 48 |
| 22 | Injectable, anti-inflammatory and conductive hydrogels based on graphene oxide and diacerein-terminated four-armed polyethylene glycol for spinal cord injury repair. <i>Materials and Design</i> , 2020, 196, 109092. | 3.3 | 48 |
| 23 | Principles Governing Catalytic Activity of Self-Assembled Short Peptides. <i>Journal of the American Chemical Society</i> , 2019, 141, 223-231. | 6.6 | 47 |
| 24 | Structure and sequence features of mussel adhesive protein lead to its salt-tolerant adhesion ability. <i>Science Advances</i> , 2020, 6, . | 4.7 | 47 |
| 25 | A Highly Stretchable, Tough, Fast Self-Healing Hydrogel Based on Peptide-Metal Ion Coordination. <i>Biomimetics</i> , 2019, 4, 36. | 1.5 | 44 |
| 26 | Biofabrication of a biomimetic supramolecular-polymer double network hydrogel for cartilage regeneration. <i>Materials and Design</i> , 2020, 189, 108492. | 3.3 | 44 |
| 27 | SPEG Controls Calcium Reuptake Into the Sarcoplasmic Reticulum Through Regulating SERCA2a by Its Second Kinase-Domain. <i>Circulation Research</i> , 2019, 124, 712-726. | 2.0 | 43 |
| 28 | Electroresponsive Supramolecular Graphene Oxide Hydrogels for Active Bacteria Adsorption and Removal. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 15120-15127. | 4.0 | 42 |
| 29 | Geranylgeranyl diphosphate synthase (GGPPS) regulates non-alcoholic fatty liver disease (NAFLD) fibrosis progression by determining hepatic glucose/fatty acid preference under high-fat diet conditions. <i>Journal of Pathology</i> , 2018, 246, 277-288. | 2.1 | 40 |
| 30 | Self-Assembled Nanofibers for Strong Underwater Adhesion: The Trick of Barnacles. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 25017-25025. | 4.0 | 40 |
| 31 | Stretchable and self-healable hydrogel artificial skin. <i>National Science Review</i> , 2022, 9, . | 4.6 | 40 |
| 32 | GGPPS-mediated Rab27A geranylgeranylation regulates β^2 cell dysfunction during type 2 diabetes development by affecting insulin granule docked pool formation. <i>Journal of Pathology</i> , 2016, 238, 109-119. | 2.1 | 39 |
| 33 | Accelerated charge transfer in water-layered peptide assemblies. <i>Energy and Environmental Science</i> , 2020, 13, 96-101. | 15.6 | 39 |
| 34 | Trabecular-like Ti-6Al-4V scaffold for bone repair: A diversified mechanical stimulation environment for bone regeneration. <i>Composites Part B: Engineering</i> , 2022, 241, 110057. | 5.9 | 38 |
| 35 | EGR1 regulates hepatic clock gene amplitude by activating Per1 transcription. <i>Scientific Reports</i> , 2015, 5, 15212. | 1.6 | 37 |
| 36 | GGPP-Mediated Protein Geranylgeranylation in Oocyte Is Essential for the Establishment of Oocyte-Granulosa Cell Communication and Primary-Secondary Follicle Transition in Mouse Ovary. <i>PLoS Genetics</i> , 2017, 13, e1006535. | 1.5 | 35 |

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|----|---|-----|-----------|
| 37 | Coupling of COPII vesicle trafficking to nutrient availability by the IRE1 \pm -XBP1s axis. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 11776-11785. | 3.3 | 35 |
| 38 | Hydrogels With Tunable Mechanical Properties Based on Photocleavable Proteins. Frontiers in Chemistry, 2020, 8, 7. | 1.8 | 34 |
| 39 | Multiporous Supramolecular Microspheres for Artificial Photosynthesis. Chemistry of Materials, 2017, 29, 4454-4460. | 3.2 | 32 |
| 40 | Lipid-induced Muscle Insulin Resistance Is Mediated by GGPPS via Modulation of the RhoA/Rho Kinase Signaling Pathway. Journal of Biological Chemistry, 2015, 290, 20086-20097. | 1.6 | 30 |
| 41 | Engineering hydrogels with homogeneous mechanical properties for controlling stem cell lineage specification. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, . | 3.3 | 28 |
| 42 | Bioinspired Ice Growth Inhibitors Based on Self-Assembling Peptides. ACS Macro Letters, 2019, 8, 1383-1390. | 2.3 | 27 |
| 43 | PP2A \pm positively regulates the termination of liver regeneration in mice through the AKT/GSK3 $\hat{2}$ /Cyclin D1 pathway. Journal of Hepatology, 2016, 64, 352-360. | 1.8 | 25 |
| 44 | Modulation of physical properties of organic cocrystals by amino acid chirality. Materials Today, 2021, 42, 29-40. | 8.3 | 25 |
| 45 | Mechanically rigid supramolecular assemblies formed from an Fmoc-guanine conjugated peptide nucleic acid. Nature Communications, 2019, 10, 5256. | 5.8 | 24 |
| 46 | GGPPS deficiency aggravates CCl ₄ -induced liver injury by inducing hepatocyte apoptosis. FEBS Letters, 2015, 589, 1119-1126. | 1.3 | 23 |
| 47 | Co-Assembly Induced Solid-State Stacking Transformation in Amino Acid-Based Crystals with Enhanced Physical Properties. Angewandte Chemie - International Edition, 2022, 61, . | 7.2 | 23 |
| 48 | Peptide Coassembly to Enhance Piezoelectricity for Energy Harvesting. ACS Applied Materials & Interfaces, 2022, 14, 6538-6546. | 4.0 | 22 |
| 49 | Regulating Mechanical Properties of Polymer-Supramolecular Double-Network Hydrogel by Supramolecular Self-assembling Structures. Chinese Journal of Chemistry, 2021, 39, 2711-2717. | 2.6 | 21 |
| 50 | An integrated artificial photosynthesis system based on peptide nanotubes. Nanoscale, 2014, 6, 7832-7837. | 2.8 | 20 |
| 51 | Strong and Reversible Covalent Double Network Hydrogel Based on Force-Coupled Enzymatic Reactions. Angewandte Chemie - International Edition, 2022, 61, . | 7.2 | 20 |
| 52 | Bioinspired Supramolecular Packing Enables High Thermo-Sustainability. Angewandte Chemie - International Edition, 2020, 59, 19037-19041. | 7.2 | 18 |
| 53 | Tuning of the dynamics of metal ion crosslinked hydrogels by network structures. Soft Matter, 2019, 15, 4423-4427. | 1.2 | 14 |
| 54 | Hepatic expression of Yin Yang 1 (YY1) is associated with the non-alcoholic fatty liver disease (NAFLD) progression in patients undergoing bariatric surgery. BMC Gastroenterology, 2018, 18, 147. | 0.8 | 11 |

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|----|--|-----|-----------|
| 55 | Heat shock protein A12A is a novel PCNA-binding protein and promotes hepatocellular carcinoma growth. <i>FEBS Journal</i> , 2020, 287, 5464-5477. | 2.2 | 10 |
| 56 | Morphology evolution of poly(lactic acid) during in situ reaction with poly(butylensuccinate) and ethylene dimethyl acrylate-glycidyl methacrylate: The formation of a novel 3D star-like structure. <i>Journal of Applied Polymer Science</i> , 2020, 137, 49201. | 1.3 | 8 |
| 57 | Egr1 deficiency disrupts dynamic equilibrium of chondrocyte extracellular matrix through PPAR β /RUNX2 signaling pathways. <i>American Journal of Translational Research (discontinued)</i> , 2018, 10, 1620-1632. | 0.0 | 8 |
| 58 | Bioinspired Suprahelical Frameworks as Scaffolds for Artificial Photosynthesis. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 45192-45201. | 4.0 | 7 |
| 59 | Regulating the Homogeneity of Thiol-Maleimide Michael-Type Addition-Based Hydrogels Using Amino Biomolecules. <i>Gels</i> , 2021, 7, 206. | 2.1 | 7 |
| 60 | Smart Adhesive Peptide Nanofibers for Cell Capture and Release. <i>ACS Biomaterials Science and Engineering</i> , 2020, 6, 6800-6807. | 2.6 | 6 |
| 61 | Strong and Injectable Hydrogels Based on Multivalent Metal Ion-Peptide Cross-linking. <i>Chemical Research in Chinese Universities</i> , 2020, 36, 962-969. | 1.3 | 6 |
| 62 | A thermally reversible healing EPDM based elastomer with higher tensile properties and damping properties. <i>Journal of Applied Polymer Science</i> , 2021, 138, 49767. | 1.3 | 6 |
| 63 | Modulating vectored non-covalent interactions for layered assembly with engineerable properties. <i>Bio-Design and Manufacturing</i> , 2022, 5, 529-539. | 3.9 | 6 |
| 64 | Tuning Strain Stiffening of Protein Hydrogels by Charge Modification. <i>International Journal of Molecular Sciences</i> , 2022, 23, 3032. | 1.8 | 5 |
| 65 | Constitutive theory for direct coupling of molecular frictions and the viscoelasticity of soft materials. <i>Journal of Applied Mechanics, Transactions ASME</i> , 0, , 1-19. | 1.1 | 4 |
| 66 | Short Peptides Derived from a Block Copolymer-like Barnacle Cement Protein Self-Assembled into Diverse Supramolecular Structures. <i>Biomacromolecules</i> , 2022, 23, 2019-2030. | 2.6 | 4 |
| 67 | Gradual Stress-Relaxation of Hydrogel Regulates Cell Spreading. <i>International Journal of Molecular Sciences</i> , 2022, 23, 5170. | 1.8 | 4 |
| 68 | Co-assembly Induced Solid-State Stacking Transformation in Amino Acid-Based Crystals with Enhanced Physical Properties. <i>Angewandte Chemie</i> , 2022, 134, . | 1.6 | 3 |
| 69 | Bioinspired Supramolecular Packing Enables High Thermo-Sustainability. <i>Angewandte Chemie</i> , 2020, 132, 19199-19203. | 1.6 | 2 |
| 70 | Self-Assembled Quadruplex-Inspired Peptide Nucleic Acid Tetramer for Artificial Photosynthesis. <i>ChemPhotoChem</i> , 2020, 4, 5154-5158. | 1.5 | 2 |
| 71 | miR-124 targets retinoid X receptor 1 to reduce growth of TSC2-deficient lymphangioleiomyomatosis. <i>Oncology Reports</i> , 2018, 41, 1342-1350. | 1.2 | 1 |
| 72 | Strong and Reversible Covalent Double Network Hydrogel Based on Force-Coupled Enzymatic Reactions. <i>Angewandte Chemie</i> , 2022, 134, . | 1.6 | 1 |

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|----|--|-----|-----------|
| 73 | The orientational preferences of backbones of proteins. Science Bulletin, 2006, 51, 2559-2565. | 1.7 | 0 |
| 74 | Rationally Designed Synthetic Protein Hydrogels with Predictable and Controllable Mechanical Properties. MCB Molecular and Cellular Biomechanics, 2019, 16, 147-147. | 0.3 | 0 |
| 75 | Unexpected Stacking Transformation from H- to J- and X-Aggregated Co-Crystals Leading to Tunable Mechanical and Optoelectronic Properties. SSRN Electronic Journal, 0, , . | 0.4 | 0 |