Xiang Yang Liu

List of Publications by Year
in descending order

207 papers	9,825 citations	30047 54 h-index	48277 88 g-index
215 all docs	215 docs citations	215 times ranked	11796 citing authors

#	Article	IF	Citations
1	Memristor with Agâ€Clusterâ€Doped TiO₂ Films as Artificial Synapse for Neuroinspired Computing. Advanced Functional Materials, 2018, 28, 1705320.	7.8	318
2	Design of Superior Spider Silk: From Nanostructure to Mechanical Properties. Biophysical Journal, 2006, 91, 4528-4535.	0.2	305
3	In vitro cancer cell imaging and therapy using transferrin-conjugated gold nanoparticles. Cancer Letters, 2009, 274, 319-326.	3.2	235
4	Structural Origin of the Strainâ€Hardening of Spider Silk. Advanced Functional Materials, 2011, 21, 772-778.	7.8	229
5	Control of ice nucleation: freezing and antifreeze strategies. Chemical Society Reviews, 2018, 47, 7116-7139.	18.7	215
6	Multiple Structural Coloring of Silkâ€Fibroin Photonic Crystals and Humidityâ€Responsive Color Sensing. Advanced Functional Materials, 2013, 23, 5373-5380.	7.8	196
7	Fullâ€Textile Wireless Flexible Humidity Sensor for Human Physiological Monitoring. Advanced Functional Materials, 2019, 29, 1904549.	7.8	193
8	Novel forward osmosis process to effectively remove heavy metal ions. Journal of Membrane Science, 2014, 467, 188-194.	4.1	192
9	Silk Composite Electronic Textile Sensor for High Space Precision 2D Combo Temperatureâ€“Pressure Sensing. Small, 2019, 15, e1901558.	5.2	184
10	A Hydrogel of Ultrathin Pure Polyaniline Nanofibers: Oxidant-Templating Preparation and Supercapacitor Application. ACS Nano, 2018, 12, 5888-5894.	7.3	177
11	How Does a Transient Amorphous Precursor Template Crystallization. Journal of the American Chemical Society, 2007, 129, 13520-13526.	6.6	171
12	Architecture of Supramolecular Soft Functional Materials: From Understanding to Microâ€/Nanoscale Engineering. Advanced Functional Materials, 2010, 20, 3196-3216.	7.8	154
13	Real-Time Observation of Fiber Network Formation in Molecular Organogel:Â Supersaturation-Dependent Microstructure and Its Related Rheological Property. Journal of Physical Chemistry B, 2006, 110, 7275-7280.	1.2	152
14	A Biodegradable and Stretchable Proteinâ€Based Sensor as Artificial Electronic Skin for Human Motion Detection. Small, 2019, 15, e1805084.	5.2	143
15	Crystal Networks in Silk Fibrous Materials: From Hierarchical Structure to Ultra Performance. Small, 2015, 11, 1039-1054.	5.2	142
16	Recent advancements in perovskite solar cells: flexibility, stability and large scale. Journal of Materials Chemistry A, 2016, 4, 6755-6771.	5.2	137
17	A Machineâ€Fabricated 3D Honeycombâ€Structured Flameâ€Retardant Triboelectric Fabric for Fire Escape and Rescue. Advanced Materials, 2020, 32, e2003897.	11.1	136
18	Intrinsically Colored and Luminescent Silk. Advanced Materials, 2011, 23, 1463-1466.	11.1	133

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19	In situ growth of CuS and Cu_{1.8}S nanosheet arrays as efficient counter electrodes for quantum dot-sensitized solar cells. Journal of Materials Chemistry A, 2015, 3, 9595-9600.	5.2	132
20	Continuous and Scalable Manufacture of Hybridized Nano-Micro Triboelectric Yarns for Energy Harvesting and Signal Sensing. ACS Nano, 2020, 14, 4716-4726.	7.3	130
21	Recent advances in interfacial engineering of perovskite solar cells. Journal Physics D: Applied Physics, 2017, 50, 373002.	1.3	129
22	What makes spider silk fibers so strong? From molecular-crystallite network to hierarchical network structures. Soft Matter, 2014, 10, 2116-2123.	1.2	127
23	Nucleation: What Happens at the Initial Stage?. Angewandte Chemie - International Edition, 2009, 48, 1308-1312.	7.2	107
24	Stretchable and Heatâ€Resistant Proteinâ€Based Electronic Skin for Human Thermoregulation. Advanced Functional Materials, 2020, 30, 1910547.	7.8	104
25	Creating New Supramolecular Materials by Architecture of Three-Dimensional Nanocrystal Fiber Networks. Journal of the American Chemical Society, 2002, 124, 15055-15063.	6.6	103
26	Recent advances in quantum dot-sensitized solar cells: insights into photoanodes, sensitizers, electrolytes and counter electrodes. Sustainable Energy and Fuels, 2017, 1, 1217-1231.	2.5	103
27	Mystery of the transformation from amorphous calcium phosphate to hydroxyapatite. Chemical Communications, 2010, 46, 7415.	2.2	99
28	Removal of organic micro-pollutants (phenol, aniline and nitrobenzene) via forward osmosis (FO) process: Evaluation of FO as an alternative method to reverse osmosis (RO). Water Research, 2016, 91, 104-114.	5.3	99
29	Limonene GP1/PG organogel as a vehicle in transdermal delivery of haloperidol. International Journal of Pharmaceutics, 2006, 311, 157-164.	2.6	97
30	Shape-controlled syntheses of rhodium nanocrystals for the enhancement of their catalytic properties. Nano Research, 2015, 8, 82-96.	5.8	84
31	Correlation between hierarchical structure of crystal networks and macroscopic performance of mesoscopic soft materials and engineering principles. Chemical Society Reviews, 2015, 44, 7881-7915.	18.7	83
32	Recent Development of Transparent Conducting Oxideâ€Free Flexible Thinâ€Film Solar Cells. Advanced Functional Materials, 2016, 26, 8855-8884.	7.8	82
33	Hierarchical Structure of Silk Materials Versus Mechanical Performance and Mesoscopic Engineering Principles. Small, 2019, 15, e1903948.	5.2	82
34	Crosslinked waterborne polyurethane with high waterproof performance. Polymer Chemistry, 2016, 7, 3913-3922.	1.9	81
35	All-Textile Electronic Skin Enabled by Highly Elastic Spacer Fabric and Conductive Fibers. ACS Applied Materials & Interfaces, 2019, 11, 33336-33346.	4.0	81
36	Morphology of orthorhombic long chain normal alkanes: theory and observations. Journal of Crystal Growth, 1992, 121, 679-696.	0.7	77

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37	Mesoscopicâ€Functionalization of Silk Fibroin with Gold Nanoclusters Mediated by Keratin and Bioinspired Silk Synapse. Small, 2017, 13, 1702390.	5.2	76
38	Programing Performance of Wool Keratin and Silk Fibroin Composite Materials by Mesoscopic Molecular Network Reconstruction. Advanced Functional Materials, 2016, 26, 9032-9043.	7.8	75
39	â€œNanoâ€Fishnetâ€•Structure Making Silk Fibers Tougher. Advanced Functional Materials, 2016, 26, 5534-5541.	7.8	74
40	A Convenient Organicâ€“Inorganic Hybrid Approach Toward Highly Stable Squaraine Dyes with Reduced Hâ€Aggregation. Advanced Functional Materials, 2012, 22, 345-352.	7.8	73
41	Engineered Large Spider Eggcase Silk Protein for Strong Artificial Fibers. Advanced Materials, 2013, 25, 1216-1220.	11.1	71
42	Silk Flexible Electronics: From <i>Bombyx mori</i> Silk Ag Nanoclusters Hybrid Materials to Mesoscopic Memristors and Synaptic Emulators. Advanced Functional Materials, 2019, 29, 1904777.	7.8	71
43	Functionalization of Silk Fibroin Materials at Mesoscale. Advanced Functional Materials, 2016, 26, 8885-8902.	7.8	70
44	Protein-Directed Synthesis of Bifunctional Adsorbent-Catalytic Hemin-Graphene Nanosheets for Highly Efficient Removal of Dye Pollutants via Synergistic Adsorption and Degradation. ACS Applied Materials & Interfaces, 2017, 9, 684-692.	4.0	69
45	Graphene decorated carbonized cellulose fabric for physiological signal monitoring and energy harvesting. Journal of Materials Chemistry A, 2020, 8, 12665-12673.	5.2	68
46	Nanoengineering of a Biocompatible Organogel by Thermal Processing. Journal of Physical Chemistry B, 2009, 113, 5011-5015.	1.2	65
47	Programing Performance of Silk Fibroin Materials by Controlled Nucleation. Advanced Functional Materials, 2016, 26, 8978-8990.	7.8	64
48	An effective real-time colorimeteric sensor for sensitive and selective detection of cysteine under physiological conditions. Analyst, The, 2011, 136, 1916.	1.7	63
49	Ultrathin Polyamide Membranes Fabricated from Free-Standing Interfacial Polymerization: Synthesis, Modifications, and Post-treatment. Industrial & Engineering Chemistry Research, 2017, 56, 513-523.	1.8	63
50	Acid and Alkaliâ€Resistant Textile Triboelectric Nanogenerator as a Smart Protective Suit for Liquid Energy Harvesting and Selfâ€Powered Monitoring in Highâ€Risk Environments. Advanced Functional Materials, 2021, 31, 2102963.	7.8	63
51	Pattern-Dependent Tunable Adhesion of Superhydrophobic MnO₂ Nanostructured Film. Langmuir, 2011, 27, 3224-3228.	1.6	62
52	Multistep Crystal Nucleation:â€‰ A Kinetic Study Based on Colloidal Crystallization. Journal of Physical Chemistry B, 2007, 111, 14001-14005.	1.2	61
53	Total morphosynthesis of biomimetic prismatic-type CaCO3 thin films. Nature Communications, 2017, 8, 1398.	5.8	61
54	Construction of Whiteâ€Lightâ€Emitting Silk Protein Hybrid Films by Molecular Recognized Assembly among Hierarchical Structures. Advanced Functional Materials, 2014, 24, 5284-5290.	7.8	58

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55	Flower-like polyaniline/graphene hybrids for high-performance supercapacitor. Composites Science and Technology, 2017, 142, 286-293.	3.8	56
56	A DFT study on poly(lactic acid) polymorphs. Polymer, 2010, 51, 2779-2785.	1.8	54
57	The use of molecular fluorescent markers to monitor absorption and distribution of xenobiotics in a silkworm model. Biomaterials, 2011, 32, 9576-9583.	5.7	54
58	Using Wool Keratin as a Basic Resist Material to Fabricate Precise Protein Patterns. Advanced Materials, 2019, 31, e1900870.	11.1	54
59	Comparative Study of Strainâ€Dependent Structural Changes of Silkworm Silks: Insight into the Structural Origin of Strainâ€Stiffening. Small, 2017, 13, 1702266.	5.2	53
60	Making Stretchable Hybrid Supercapacitors by Knitting Nonâ€Stretchable Metal Fibers. Advanced Functional Materials, 2020, 30, 2003153.	7.8	52
61	Tailoring NiCoAl layered double hydroxide nanosheets for assembly of high-performance asymmetric supercapacitors. Journal of Colloid and Interface Science, 2021, 583, 722-733.	5.0	49
62	Engineering Molecular Self-Assembled Fibrillar Networks by Ultrasound. Crystal Growth and Design, 2009, 9, 3286-3291.	1.4	48
63	Experimental modelling of single-particle dynamic processes in crystallization by controlled colloidal assembly. Chemical Society Reviews, 2014, 43, 2324-2347.	18.7	48
64	Mesoâ€Functionalization of Silk Fibroin by Upconversion Fluorescence and Near Infrared In Vivo Biosensing. Advanced Functional Materials, 2017, 27, 1700628.	7.8	48
65	From Molecular Reconstruction of Mesoscopic Functional Conductive Silk Fibrous Materials to Remote Respiration Monitoring. Small, 2020, 16, e2000203.	5.2	48
66	Microengineering of Supramolecular Soft Materials by Design of the Crystalline Fiber Networks. Crystal Growth and Design, 2010, 10, 2699-2706.	1.4	47
67	Structural engineering of waterborne polyurethane for high performance waterproof coatings. RSC Advances, 2015, 5, 72544-72552.	1.7	47
68	Engineering of Fluorescent Emission of Silk Fibroin Composite Materials by Material Assembly. Small, 2015, 11, 1205-1214.	5.2	47
69	Effective hydrogenation of g-C3N4 for enhanced photocatalytic performance revealed by molecular structure dynamics. Applied Catalysis B: Environmental, 2019, 250, 63-70.	10.8	47
70	The role of unfolded protein response and ER-phagy in quantum dots-induced nephrotoxicity: an in vitro and in vivo study. Archives of Toxicology, 2018, 92, 1421-1434.	1.9	46
71	Zero-sized Effect of Nano-particles and Inverse Homogeneous Nucleation. Journal of Biological Chemistry, 2004, 279, 6124-6131.	1.6	45
72	New Silk Road: From Mesoscopic Reconstruction/Functionalization to Flexible Mesoâ€Electronics/Photonics Based on Cocoon Silk Materials. Advanced Materials, 2021, 33, e2005910.	11.1	45

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73	Highly flexible and scalable photo-rechargeable power unit based on symmetrical nanotube arrays. Nano Energy, 2018, 46, 168-175.	8.2	44
74	Switching on Fluorescent Emission by Molecular Recognition and Aggregation Dissociation. Advanced Functional Materials, 2012, 22, 361-368.	7.8	42
75	Flexible and Insoluble Artificial Synapses Based on Chemical Crossâ€Linked Wool Keratin. Advanced Functional Materials, 2020, 30, 2002882.	7.8	42
76	Mesoâ€Reconstruction of Silk Fibroin based on Molecular and Nanoâ€Templates for Electronic Skin in Medical Applications. Advanced Functional Materials, 2021, 31, 2100150.	7.8	42
77	Stretchable, Stable, and Degradable Silk Fibroin Enabled by Mesoscopic Doping for Finger Motion Triggered Color/Transmittance Adjustment. ACS Nano, 2021, 15, 12429-12437.	7.3	42
78	Producing Supramolecular Functional Materials Based on Fiber Network Reconstruction. Advanced Functional Materials, 2009, 19, 2252-2259.	7.8	41
79	Controllable Epitaxial Crystallization and Reversible Oriented Patterning of Two-Dimensional Colloidal Crystals. Journal of the American Chemical Society, 2009, 131, 4976-4982.	6.6	41
80	Controlled Colloidal Assembly: Experimental Modeling of General Crystallization and Biomimicking of Structural Color. Advanced Functional Materials, 2012, 22, 1354-1375.	7.8	41
81	Electrically Directed Onâ€Chip Reversible Patterning of Twoâ€Dimensional Tunable Colloidal Structures. Advanced Functional Materials, 2008, 18, 802-809.	7.8	40
82	Pulsed electrochemical deposition of porous WO₃ on silver networks for highly flexible electrochromic devices. Journal of Materials Chemistry C, 2019, 7, 1966-1973.	2.7	40
83	From Mesoscopic Functionalization of Silk Fibroin to Smart Fiber Devices for Textile Electronics and Photonics. Advanced Science, 2022, 9, e2103981.	5.6	40
84	Architecture of Macromolecular Network of Soft Functional Materials:Â from Structure to Function. Journal of Physical Chemistry B, 2007, 111, 5558-5563.	1.2	39
85	Microengineering of Soft Functional Materials by Controlling the Fiber Network Formation. Journal of Physical Chemistry B, 2009, 113, 15467-15472.	1.2	39
86	From Amorphous Macroporous Film to 3D Crystalline Nanorod Architecture: A New Approach to Obtain Highâ€Performance V₂O₅ Electrochromism. Advanced Materials Interfaces, 2015, 2, 1500230.	1.9	38
87	Biomimetic Salinity Power Generation Based on Silk Fibroin Ion-Exchange Membranes. ACS Nano, 2021, 15, 5649-5660.	7.3	36
88	Crystal networks in supramolecular gels: formation kinetics and mesoscopic engineering principles. CrystEngComm, 2015, 17, 7986-8010.	1.3	35
89	Smart electrochromic supercapacitors based on highly stable transparent conductive graphene/CuS network electrodes. RSC Advances, 2017, 7, 29088-29095.	1.7	35
90	Physicochemical effects of terpenes on organogel for transdermal drug delivery. International Journal of Pharmaceutics, 2008, 358, 102-107.	2.6	33

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91	Quinoline-based azo derivative assembly: Optical limiting property and enhancement mechanism. Dyes and Pigments, 2013, 99, 720-726.	2.0	33
92	Design and engineering of silk fibroin scaffolds with biomimetic hierarchical structures. Chemical Communications, 2013, 49, 1431.	2.2	33
93	Highly flexible, transparent and conducting CuS-nanosheet networks for flexible quantum-dot solar cells. Nanoscale, 2017, 9, 3826-3833.	2.8	33
94	Seeded Mineralization Leads to Hierarchical CaCO₃ Thin Coatings on Fibers for Oil/Water Separation Applications. Langmuir, 2018, 34, 2942-2951.	1.6	33
95	An integrated smart heating control system based on sandwich-structural textiles. Nanotechnology, 2019, 30, 325203.	1.3	33
96	Mesoâ€Reconstruction of Wool Keratin 3D â€œMolecular Springsâ€•for Tunable Ultraâ€Sensitive and Highly Recovery Strain Sensors. Small, 2020, 16, e2000128.	5.2	33
97	Controlled formation of colloidal structures by an alternating electric field and its mechanisms. Journal of Chemical Physics, 2009, 130, 184901.	1.2	32
98	Supramolecular self-assembly structures and properties of zwitterionic squaraine molecules. RSC Advances, 2013, 3, 8021.	1.7	31
99	Two Scenarios for Colloidal Phase Transitions. Physical Review Letters, 2006, 96, 105701.	2.9	30
100	Will Fluoride Toughen or Weaken Our Teeth? Understandings Based on Nucleation, Morphology, and Structural Assembly. Journal of Physical Chemistry B, 2009, 113, 16393-16399.	1.2	30
101	Rheological properties and formation mechanism of DC electric fields induced konjac glucomannan-tungsten gels. Carbohydrate Polymers, 2016, 142, 293-299.	5.1	30
102	Ultraflexible, stretchable and fast-switching electrochromic devices with enhanced cycling stability. RSC Advances, 2018, 8, 18690-18697.	1.7	30
103	High-Throughput Screening of Rat Mesenchymal Stem Cell Behavior on Gradient TiO₂ Nanotubes. ACS Biomaterials Science and Engineering, 2018, 4, 2804-2814.	2.6	30
104	Stretchable Supercapacitors: From Materials and Structures to Devices. Small Methods, 2021, 5, e2000853.	4.6	30
105	Fabrication of Crack-Free Photonic Crystal Films on Superhydrophobic Nanopin Surface. ACS Applied Materials & Interfaces, 2017, 9, 22037-22041.	4.0	29
106	A high-response transparent heater based on a CuS nanosheet film with superior mechanical flexibility and chemical stability. Nanoscale, 2018, 10, 6531-6538.	2.8	29
107	Recent Advances in Patterning Natural Polymers: From Nanofabrication Techniques to Applications. Small Methods, 2021, 5, e2001060.	4.6	29
108	Ab Initio Elasticity of Poly(lactic acid) Crystals. Journal of Physical Chemistry B, 2010, 114, 3133-3139.	1.2	28

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109	Coupling of Silk Fibroin Nanofibrils Enzymatic Membrane with Ultraâ€Thin PtNPs/Graphene Film to Acquire Long and Stable Onâ€Skin Sweat Glucose and Lactate Sensing. Small Methods, 2021, 5, e2000926.	4.6	28
110	Mysterious coloring: structural origin of color mixing for two breeds of Papilio butterflies. Optics Express, 2011, 19, 9232.	1.7	27
111	Two-photon fluorescent Bombyx mori silk by molecular recognition functionalization. Journal of Materials Chemistry B, 2014, 2, 2136-2143.	2.9	27
112	Design and Fabrication of a New Class of Nano Hybrid Materials based on Reactive Polymeric Molecular Cages. Langmuir, 2013, 29, 11498-11505.	1.6	25
113	Ultrastable, highly luminescent quantum dot composites based on advanced surface manipulation strategy for flexible lighting-emitting. Nanotechnology, 2018, 29, 315203.	1.3	25
114	Achieving High-Performance Surface-Enhanced Raman Scattering through One-Step Thermal Treatment of Bulk MoS₂. Journal of Physical Chemistry C, 2018, 122, 14467-14473.	1.5	25
115	Ligand-triggered electrostatic self-assembly of CdS nanosheet/Au nanocrystal nanocomposites for versatile photocatalytic redox applications. Nanoscale, 2016, 8, 19161-19173.	2.8	24
116	The textural properties and microstructure of konjac glucomannan â€“ tungsten gels induced by DC electric fields. Food Chemistry, 2016, 212, 256-263.	4.2	24
117	Spherulitic Networks: From Structure to Rheological Property. Journal of Physical Chemistry B, 2009, 113, 4549-4554.	1.2	23
118	Transparent conducting oxide- and Pt-free flexible photo-rechargeable electric energy storage systems. RSC Advances, 2017, 7, 52988-52994.	1.7	23
119	Boost of the Bio-memristor Performance for Artificial Electronic Synapses by Surface Reconstruction. ACS Applied Materials & Interfaces, 2021, 13, 39641-39651.	4.0	23
120	Kinetically Controlled Homogenization and Transformation of Crystalline Fiber Networks in Supramolecular Materials. Crystal Growth and Design, 2011, 11, 3227-3234.	1.4	22
121	From kineticâ€“structure analysis to engineering crystalline fiber networks in soft materials. Physical Chemistry Chemical Physics, 2013, 15, 3313.	1.3	22
122	Control of crystallization in supramolecular soft materials engineering. Soft Matter, 2013, 9, 435-442.	1.2	22
123	Controllable and large-scale fabrication of flexible ITO-free electrochromic devices by crackle pattern technology. Journal of Materials Chemistry A, 2018, 6, 19584-19589.	5.2	22
124	Enhanced Exfoliation of Biocompatible MoS₂ Nanosheets by Wool Keratin. ACS Applied Nano Materials, 2018, 1, 5460-5469.	2.4	22
125	Bandgapâ€Opened Bilayer Graphene Approached by Asymmetrical Intercalation of Trilayer Graphene. Small, 2015, 11, 1177-1182.	5.2	21
126	An efficient disposable and flexible electrochemical sensor based on a novel and stable metal carbon composite derived from cocoon silk. Biosensors and Bioelectronics, 2019, 142, 111595.	5.3	20

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127	Tailoring the Meso-Structure of Gold Nanoparticles in Keratin-Based Activated Carbon Toward High-Performance Flexible Sensor. Nano-Micro Letters, 2020, 12, 117.	14.4	20
128	Effect of microgravity on Ca mineral crystallization and implications for osteoporosis in space. Applied Physics Letters, 2001, 79, 3539-3541.	1.5	19
129	Size invariance of fibrous networks of supramolecular soft materials during formation under critical volume confinement. Soft Matter, 2012, 8, 5187.	1.2	19
130	Drug Permeation through Skin Is Inversely Correlated with Carrier Gel Rigidity. Molecular Pharmaceutics, 2015, 12, 444-452.	2.3	19
131	Electrothermally Driven Fluorescence Switching by Liquid Crystal Elastomers Based On Dimensional Photonic Crystals. ACS Applied Materials & Interfaces, 2017, 9, 11770-11779.	4.0	19
132	Aqueous supercapacitors based on carbonized silk electrodes. RSC Advances, 2018, 8, 22146-22153.	1.7	19
133	Critical behavior of confined supramolecular soft materials on a microscopic scale. Chemical Communications, 2011, 47, 2793.	2.2	18
134	Controlling Nanoparticle Formation via Sizable Cages of Supramolecular Soft Materials. Langmuir, 2011, 27, 7820-7827.	1.6	18
135	Using Inorganic Nanomaterials to Endow Biocatalytic Systems with Unique Features. Trends in Biotechnology, 2016, 34, 303-315.	4.9	18
136	Primary and Secondary Mesoscopic Hybrid Materials of Au Nanoparticles@Silk Fibroin and Applications. ACS Applied Materials & Interfaces, 2019, 11, 30125-30136.	4.0	18
137	Ice Surface Reconstruction as Antifreeze Protein-Induced Morphological Modification Mechanism. Journal of the American Chemical Society, 2005, 127, 428-440.	6.6	17
138	Volume confinement induced microstructural transitions and property enhancements of supramolecular soft materials. Soft Matter, 2011, 7, 1708-1713.	1.2	17
139	Configurations and diffusion of point defects in two-dimensional colloidal crystals. Applied Physics Letters, 2006, 89, 261914.	1.5	16
140	Effect of Long-Range Attraction on Growth Model. Journal of Physical Chemistry C, 2007, 111, 1342-1346.	1.5	16
141	Kinetics and Equilibrium Distribution of Colloidal Assembly under an Alternating Electric Field and Correlation to Degree of Perfection of Colloidal Crystals. Journal of Physical Chemistry C, 2007, 111, 995-998.	1.5	16
142	Silk/agarose scaffolds with tunable properties via SDS assisted rapid gelation. RSC Advances, 2017, 7, 21740-21748.	1.7	16
143	All-in-one fibrous capacitive humidity sensor for human breath monitoring. Textile Reseach Journal, 2021, 91, 398-405.	1.1	16
144	Remote activation of nanoparticulate biomimetic activity by light triggered pH-jump. Chemical Communications, 2018, 54, 8641-8644.	2.2	15

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145	An efficient and simple dual effect by under-layer abduction design for highly flexible NiOx-based perovskite solar cells. Journal of Power Sources, 2018, 399, 246-253.	4.0	15
146	Gel-Based Artificial Photonic Skin to Sense a Gentle Touch by Reflection. ACS Applied Materials & Interfaces, 2019, 11, 15195-15200.	4.0	15
147	Photoelectrochromic smart windows powered by flexible dye-sensitized solar cell using CuS mesh as counter electrode. Materials Letters, 2019, 244, 92-95.	1.3	15
148	Flexible and disposable gold nanoparticles-N-doped carbon-modified electrochemical sensor for simultaneous detection of dopamine and uric acid. Nanotechnology, 2021, 32, 065502.	1.3	15
149	Reinforcement of Silk Microneedle Patches for Accurate Transdermal Delivery. Biomacromolecules, 2021, 22, 5319-5326.	2.6	15
150	Recent Progress of Applying Mesoscopic Functionalization Engineering Principles to Spin Advanced Regenerated Silk Fibroin Fibers. Advanced Fiber Materials, 2022, 4, 390-403.	7.9	15
151	Size-dependent planar colloidal crystals guided by alternating electric field. Applied Physics Letters, 2007, 90, 111911.	1.5	14
152	Direct Growth of Microspheres on Amorphous Precursor Domains in Polymer-Controlled Crystallization of Indomethacin. Crystal Growth and Design, 2016, 16, 1428-1434.	1.4	14
153	Programing Performance of Silk Fibroin Superstrong Scaffolds by Mesoscopic Regulation among Hierarchical Structures. Biomacromolecules, 2020, 21, 4169-4179.	2.6	14
154	Reconstructed silk fibroin mediated smart wristband for physiological signal detection. Chemical Engineering Journal, 2022, 428, 132362.	6.6	14
155	Determination of Elastic Constants of Two-Dimensional Close-Packed Colloidal Crystals. Langmuir, 2009, 25, 5432-5436.	1.6	13
156	Elevating Biomedical Performance of ZnO/SiO₂@Amorphous Calcium Phosphate â€• Bioinspiration Making Possible the Impossible. Advanced Functional Materials, 2016, 26, 6921-6929.	7.8	13
157	Sputtered seed-assisted growth of CuS nanosheet arrays as effective counter electrodes for quantum dot-sensitized solar cells. Materials Letters, 2017, 203, 73-76.	1.3	13
158	Nanocombing Effect Leads to Nanowire-Based, in-Plane, Uniaxial Thin Films. ACS Nano, 2018, 12, 12701-12712.	7.3	12
159	Silk Fluorescence Collimator for Ultrasensitive Humidity Sensing and Lightâ€Harvesting in Semitransparent Dyeâ€Sensitized Solar Cells. Small, 2019, 15, 1804171.	5.2	12
160	A capacitive humidity sensor based on all-protein embedded with gold nanoparticles @ carbon composite for human respiration detection. Nanotechnology, 2021, 32, 19LT01.	1.3	12
161	Subcutaneous Energy/Signal Transmission Based on Silk Fibroin Up-Conversion Photonic Amplification. ACS Nano, 2021, 15, 9559-9567.	7.3	12
162	3D nano-macroporous structured TiO₂-foam glass as an efficient photocatalyst for organic pollutant treatment. RSC Advances, 2016, 6, 51888-51893.	1.7	11

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163	Chemical Decoration of Perovskites by Nickel Oxide Doping for Efficient and Stable Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 36841-36850.	4.0	11
164	Silk Nanococoons: Bioâ€Nanoreactors for Enzymatic Catalytic Reactions and Applications to Alcohol Intoxication. Small Science, 2021, 1, 2000049.	5.8	11
165	Bring Structural Color to Silk Fabrics. Advanced Materials Research, 0, 441, 183-186.	0.3	10
166	Electrochromic performance of WO₃films: optimization by crystal network topology modification. CrystEngComm, 2015, 17, 6583-6590.	1.3	10
167	Design of Heterogeneous Nuclei Composed of Uniaxial Cellulose Nanocrystal Assemblies for Epitaxial Growth of Poly(Îµ-caprolactone). Macromolecules, 2017, 50, 3355-3364.	2.2	10
168	Wearable hydration and pH sensor based on protein film for healthcare monitoring. Chemical Papers, 2021, 75, 4927.	1.0	10
169	Fabrication and Biofunctionalization of Selenium-Polypyrrole Coreâ€"Shell Nanoparticles for Targeting and Imaging of Cancer Cells. Journal of Nanoscience and Nanotechnology, 2008, 8, 2488-2491.	0.9	9
170	Fabrication of a uniaxial cellulose nanocrystal thin film for coassembly of single-walled carbon nanotubes. RSC Advances, 2016, 6, 39396-39400.	1.7	9
171	Design of Heterogeneous Nuclei for Lateral Crystallization via Uniaxial Assembly of Cellulose Nanocrystals. Crystal Growth and Design, 2016, 16, 4620-4626.	1.4	9
172	Properties and applications of designable and photo/redox dual responsive surfactants with the new head group 2-arylazo-imidazolium. RSC Advances, 2016, 6, 51552-51561.	1.7	9
173	Highly Ordered and Multiple-Responsive Graphene Oxide/Azoimidazolium Surfactant Intercalation Hybrids: A Versatile Control Platform. Langmuir, 2017, 33, 3099-3111.	1.6	8
174	Rational design of coralloid Co₉S₈â€"CuS hierarchical architectures for quantum dot-sensitized solar cells. Journal of Materials Chemistry C, 2018, 6, 11384-11391.	2.7	8
175	A Novel Facile and Green Synthesis Protocol to Prepare High Strength Regenerated Silk Fibroin/SiO2 Composite Fiber. Fibers and Polymers, 2019, 20, 2222-2226.	1.1	8
176	A nanoneedle-based reactional wettability variation sensor array for on-site detection of metal ions with a smartphone. Journal of Colloid and Interface Science, 2019, 547, 330-338.	5.0	8
177	From solidâ€"fluid interfacial structure to nucleation kinetics: Principles and strategies for micro/nanostructure engineering. Nanostructure Science and Technology, 2004, , 109-175.	0.1	8
178	Enhanced Antifreeze Effect of Antifreeze Protein on Ice Nucleation by Electrolyte. Crystal Growth and Design, 2008, 8, 3290-3294.	1.4	7
179	A generic and effective strategy for highly effective â€œintrinsicâ€• molecular luminescence in the condensed state. Journal of Materials Chemistry C, 2013, 1, 5277.	2.7	7
180	Facile Onâ€Site Detection Based on Reactional Wettability Variation. Advanced Materials Interfaces, 2018, 5, 1701326.	1.9	7

#	ARTICLE	IF	CITATIONS
181	Synergistic Effect of Granular Seed Substrates and Soluble Additives in Structural Control of Prismatic CaCO₃ Thin Films. Langmuir, 2018, 34, 11126-11138.	1.6	7
182	Needleâ€Leafâ€Like Cu₂Mo₆S₈ Films for Highly Efficient Visibleâ€Light Photocatalysis. Particle and Particle Systems Characterization, 2018, 35, 1700302.	1.2	6
183	Transient bioelectrical devices inspired by a silkworm moth breaking out of its cocoon. RSC Advances, 2019, 9, 14254-14259.	1.7	6
184	Can the pathway of stepwise nucleation be predicted and controlled?. Physical Chemistry Chemical Physics, 2019, 21, 7398-7405.	1.3	6
185	Assembling Twoâ€Phase Enzymatic Cascade Pathways in Pickering Emulsion. ChemCatChem, 2019, 11, 1878-1883.	1.8	6
186	Correlations of crystal shape and lateral orientation in bioinspired CaCO₃mineralization. CrystEngComm, 2018, 20, 5241-5248.	1.3	5
187	Highly flexible and high energy density fiber supercapacitors based upon spiral silk composite membranes encapsulation. Electrochimica Acta, 2022, 404, 139611.	2.6	5
188	Highly efficient and stable solid-state luminescent nanohybrids: Precise architecture and enhancement mechanism. Journal of Materials Research, 2013, 28, 1061-1069.	1.2	4
189	From Templated Nucleation to Functional Materials Engineering. AIP Conference Proceedings, 2007, , .	0.3	3
190	CHAPTER 13. Spider Silk: The Toughest Natural Polymer. RSC Green Chemistry, 2012, , 275-304.	0.0	3
191	Graphical analysis of mammalian cell adhesion in vitro. Colloids and Surfaces B: Biointerfaces, 2016, 148, 211-219.	2.5	3
192	Supramolecular gels and mesoscopic structure. International Journal of Modern Physics B, 2018, 32, 1840015.	1.0	3
193	Enhanced mechanical performance of biocompatible silk fibroin films through mesoscopic construction of hierarchical structures. Textile Reseach Journal, 2021, 91, 1146-1154.	1.1	3
194	Effect of Graphene on Ice Polymorph. Crystals, 2021, 11, 1134.	1.0	3
195	Enzymatic Crosslinked Silk Fibroin Hydrogel for Biodegradable Electronic Skin and Pulse Waveform Measurements. Biomacromolecules, 2022, 23, 3429-3438.	2.6	3
196	Controlled Colloidal Assembly. , 2015, , 561-594.		2
197	Advances in Soft Functional Materials Research. Advanced Functional Materials, 2016, 26, 8807-8809.	7.8	2
198	Enzymatic manipulation of a DNA-mediated ensemble for sensitive fluorescence detection of glucose. RSC Advances, 2016, 6, 33132-33137.	1.7	2

#	Article	IF	Citations
199	Modeling of Biomineralization and Structural Color Biomimetics by Controlled Colloidal Assembly. Biological and Medical Physics Series, 2012, , 221-274.	0.3	2
200	High voltage output/energy density flexible asymmetric fiber supercapacitors based on a tree-like topology. Cell Reports Physical Science, 2021, 2, 100649.	2.8	2
201	Simulating â€œAtomicâ€•Processes of Crystallization via Controlled Colloidal Assembly. , 2010, , .		1
202	Data analysis between controllable variables and the performance of CuS crackle based electrode. Data in Brief, 2018, 17, 1331-1335.	0.5	1
203	Constructing dual-readout logic operations based on the silk fibroin solâ€“gel transition. Journal of Materials Chemistry B, 2020, 8, 3005-3009.	2.9	1
204	Survival from the Cold Winter: Freezing and Ice Crystallization Inhibition by Antifreeze Proteins. Biological and Medical Physics Series, 2012, , 57-105.	0.3	0
205	Soft Matter: From Structure to Functionality. Small, 2015, 11, 1022-1023.	5.2	0
206	Colloids in the study of fundamental physics. International Journal of Modern Physics B, 2018, 32, 1840008.	1.0	0
207	Preparation of Crack-free Inverse-opal Films by Template/Matrix Co-assembly. Acta Chimica Sinica, 2017, 75, 1010.	0.5	0