Bin Yan

List of Publications by Year
in descending order

106 papers	5,894 citations	66234 42 h-index	76769 74 g-index
109 all docs	109 docs citations	109 times ranked	7502 citing authors

#	Article	IF	Citations
1	Novel Musselâ€Inspired Injectable Selfâ€Healing Hydrogel with Antiâ€Biofouling Property. Advanced Materials, 2015, 27, 1294-1299.	11.1	473
2	Near-Infrared Light-Triggered Dissociation of Block Copolymer Micelles Using Upconverting Nanoparticles. Journal of the American Chemical Society, 2011, 133, 19714-19717.	6.6	428
3	Near Infrared Light Triggered Release of Biomacromolecules from Hydrogels Loaded with Upconversion Nanoparticles. Journal of the American Chemical Society, 2012, 134, 16558-16561.	6.6	388
4	Highly Regenerable Mussel-Inspired Fe₃O₄@Polydopamine-Ag Coreâ€“Shell Microspheres as Catalyst and Adsorbent for Methylene Blue Removal. ACS Applied Materials & Interfaces, 2014, 6, 8845-8852.	4.0	385
5	Regenerable urchin-like Fe 3 O 4 @PDA-Ag hollow microspheres as catalyst and adsorbent for enhanced removal of organic dyes. Journal of Hazardous Materials, 2018, 350, 66-75.	6.5	172
6	High-Strength, Self-Healable, Temperature-Sensitive, MXene-Containing Composite Hydrogel as a Smart Compression Sensor. ACS Applied Materials & Interfaces, 2019, 11, 47350-47357.	4.0	168
7	Flexible Piezoelectric Pressure Tactile Sensor Based on Electrospun BaTiO₃/Poly(vinylidene fluoride) Nanocomposite Membrane. ACS Applied Materials & Interfaces, 2020, 12, 33989-33998.	4.0	150
8	Injectable Self-Healing Hydrogel with Antimicrobial and Antifouling Properties. ACS Applied Materials & Interfaces, 2017, 9, 9221-9225.	4.0	145
9	Ultra elastic, stretchable, self-healing conductive hydrogels with tunable optical properties for highly sensitive soft electronic sensors. Journal of Materials Chemistry A, 2020, 8, 24718-24733.	5.2	128
10	Injectable and Self-Healing Nanocomposite Hydrogels with Ultrasensitive pH-Responsiveness and Tunable Mechanical Properties: Implications for Controlled Drug Delivery. Biomacromolecules, 2020, 21, 2409-2420.	2.6	107
11	Duplicating Dynamic Strain-Stiffening Behavior and Nanomechanics of Biological Tissues in a Synthetic Self-Healing Flexible Network Hydrogel. ACS Nano, 2017, 11, 11074-11081.	7.3	105
12	Manipulation of block copolymer vesicles using CO2: dissociation or â€œbreathingâ€• Soft Matter, 2013, 9, 2011.	1.2	104
13	Longâ€Range Hydrophilic Attraction between Water and Polyelectrolyte Surfaces in Oil. Angewandte Chemie - International Edition, 2016, 55, 15017-15021.	7.2	103
14	High Performance Piezoelectric Nanogenerators Based on Electrospun ZnO Nanorods/Poly(vinylidene) Tj ETQq0 0 0 rgBT /Overlock 10 T	1.5	96
15	Transparent Stretchable Dual-Network Ionogel with Temperature Tolerance for High-Performance Flexible Strain Sensors. ACS Applied Materials & Interfaces, 2020, 12, 37597-37606.	4.0	92
16	Mussel-inspired antifouling coatings bearing polymer loops. Chemical Communications, 2015, 51, 15780-15783.	2.2	91
17	Dendrimer functionalized graphene oxide for selenium removal. Carbon, 2016, 105, 655-664.	5.4	90
18	Bio-inspired membrane with adaptable wettability for smart oil/water separation. Journal of Membrane Science, 2020, 598, 117661.	4.1	83

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19	Environmentally friendly nanocomposites based on cellulose nanocrystals and polydopamine for rapid removal of organic dyes in aqueous solution. Cellulose, 2020, 27, 2085-2097.	2.4	78
20	Poly(acrylic acid) functionalized magnetic graphene oxide nanocomposite for removal of methylene blue. RSC Advances, 2015, 5, 32272-32282.	1.7	75
21	Both Core- and Shell-Cross-Linked Nanogels: Photoinduced Size Change, Intraparticle LCST, and Interparticle UCST Thermal Behaviors. Langmuir, 2011, 27, 436-444.	1.6	72
22	Tannic acid/Fe3+ functionalized magnetic graphene oxide nanocomposite with high loading of silver nanoparticles as ultra-efficient catalyst and disinfectant for wastewater treatment. Chemical Engineering Journal, 2021, 405, 126629.	6.6	72
23	Ultrasound-Responsive Block Copolymer Micelles Based on a New Amplification Mechanism. Langmuir, 2012, 28, 16463-16468.	1.6	71
24	Development of eco-friendly CO2-responsive cellulose nanofibril aerogels as â€œgreenâ€•adsorbents for anionic dyes removal. Journal of Hazardous Materials, 2021, 405, 124194.	6.5	70
25	Antifreeze and moisturizing high conductivity PEDOT/PVA hydrogels for wearable motion sensor. Journal of Materials Science, 2020, 55, 1280-1291.	1.7	69
26	Nanomechanics of Anionâ^'Ï€ Interaction in Aqueous Solution. Journal of the American Chemical Society, 2020, 142, 1710-1714.	6.6	67
27	A two-step flocculation process on oil sands tailings treatment using oppositely charged polymer flocculants. Science of the Total Environment, 2016, 565, 369-375.	3.9	66
28	A wet adhesion strategy via synergistic cationâ€“Ï€ and hydrogen bonding interactions of antifouling zwitterions and mussel-inspired binding moieties. Journal of Materials Chemistry A, 2019, 7, 21944-21952.	5.2	66
29	Sustainable Advanced Fenton-like Catalysts Based on Mussel-Inspired Magnetic Cellulose Nanocomposites to Effectively Remove Organic Dyes and Antibiotics. ACS Applied Materials & Interfaces, 2020, 12, 51952-51959.	4.0	64
30	Molecular and Surface Interactions between Polymer Flocculant Chitosan-g-polyacrylamide and Kaolinite Particles: Impact of Salinity. Journal of Physical Chemistry C, 2015, 119, 7327-7339.	1.5	61
31	Efficient removal of elemental mercury (Hg⁰) by SBA-15-Ag adsorbents. Journal of Materials Chemistry A, 2014, 2, 17730-17734.	5.2	59
32	Hierarchical polydopamine coated cellulose nanocrystal microstructures as efficient nanoadsorbents for removal of Cr(VI) ions. Cellulose, 2019, 26, 6401-6414.	2.4	59
33	An amphiphobic graphene-based hydrogel as oil-water separator and oil fence material. Chemical Engineering Journal, 2018, 353, 708-716.	6.6	55
34	Light-responsive block copolymer vesicles based on a photo-softening effect. Soft Matter, 2011, 7, 10001.	1.2	53
35	Core/shell structured halloysite/polyaniline nanotubes with enhanced electrochromic properties. Journal of Materials Chemistry C, 2018, 6, 5707-5715.	2.7	51
36	A Universal Strategy for Constructing Robust and Antifouling Cellulose Nanocrystal Coating. Advanced Functional Materials, 2022, 32, 2109989.	7.8	51

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37	Biomimetic Lubrication and Surface Interactions of Dopamine-Assisted Zwitterionic Polyelectrolyte Coatings. Langmuir, 2018, 34, 11593-11601.	1.6	50
38	The effect of molecular weight of polymer matrix on properties of polymer-dispersed liquid crystals. European Polymer Journal, 2007, 43, 2745-2749.	2.6	48
39	Unraveling the molecular interaction mechanism between graphene oxide and aromatic organic compounds with implications on wastewater treatment. Chemical Engineering Journal, 2019, 358, 842-849.	6.6	48
40	Stomatocyte-like hollow polydopamine nanoparticles for rapid removal of water-soluble dyes from water. Chemical Communications, 2019, 55, 8162-8165.	2.2	45
41	Tannic acid modified MoS2 nanosheet membranes with superior water flux and ion/dye rejection. Journal of Colloid and Interface Science, 2020, 560, 177-185.	5.0	45
42	Polydopamine/polystyrene nanocomposite double-layer strain sensor hydrogel with mechanical, self-healing, adhesive and conductive properties. Materials Science and Engineering C, 2020, 109, 110567.	3.8	45
43	Robust, stretchable and photothermal self-healing polyurethane elastomer based on furan-modified polydopamine nanoparticles. Polymer, 2020, 190, 122219.	1.8	45
44	Universal Mussel-Inspired Ultrastable Surface-Anchoring Strategy via Adaptive Synergy of Catechol and Cations. ACS Applied Materials & Interfaces, 2018, 10, 2166-2173.	4.0	43
45	Nanocomposites of graphene oxide, Ag nanoparticles, and magnetic ferrite nanoparticles for elemental mercury (Hg⁰) removal. RSC Advances, 2015, 5, 15634-15640.	1.7	39
46	A coral-like polyaniline/barium titanate nanocomposite electrode with double electric polarization for electrochromic energy storage applications. Journal of Materials Chemistry A, 2021, 9, 1669-1677.	5.2	38
47	Nanomechanics of Ï€-cation-Ï€ interaction with implications for bio-inspired wet adhesion. Acta Biomaterialia, 2020, 117, 294-301.	4.1	37
48	RAFT Copolymerization as a means to enhance the electroâ€optical performance of polymer dispersed liquid crystal films. Journal of Polymer Science Part A, 2007, 45, 4144-4149.	2.5	35
49	Core cross-linked double hydrophilic block copolymer micelles based on multiple hydrogen-bonding interactions. Polymer Chemistry, 2017, 8, 3066-3073.	1.9	33
50	Patterned Flexible Electrochromic Device Based on Monodisperse Silica/Polyaniline Core/Shell Nanospheres. Journal of the Electrochemical Society, 2019, 166, H343-H350.	1.3	32
51	Modification of electro-optical properties of polymer dispersed liquid crystal films by iniferter polymerization. European Polymer Journal, 2008, 44, 952-958.	2.6	31
52	Nanoconfining Cation-Ï€ Interactions as a Modular Strategy to Construct Injectable Self-Healing Hydrogel. CCS Chemistry, 2022, 4, 2724-2737.	4.6	31
53	Aminated Polyacrylonitrile Nanofiber Membranes for the Removal of Organic Dyes. ACS Applied Nano Materials, 2022, 5, 1131-1140.	2.4	30
54	Microfluidic Synthesis of Photoresponsive Spool-Like Block Copolymer Nanoparticles: Flow-Directed Formation and Light-Triggered Dissociation. Chemistry of Materials, 2015, 27, 8094-8104.	3.2	29

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55	Ultra-efficient and stable heterogeneous iron-based Fenton nanocatalysts for degrading organic dyes at neutral pH via a chelating effect under nanoconfinement. Chemical Communications, 2020, 56, 6571-6574.	2.2	29
56	Fe3+-citric acid/sodium alginate hydrogel: A photo-responsive platform for rapid water purification. Carbohydrate Polymers, 2021, 269, 118269.	5.1	28
57	Polyaniline nanoparticle coated graphene oxide composite nanoflakes for bifunctional multicolor electrochromic and supercapacitor applications. Journal of Materials Science: Materials in Electronics, 2019, 30, 13497-13508.	1.1	27
58	Octadecyltrichlorosilane Deposition on Mica Surfaces: Insights into the Interface Interaction Mechanism. Journal of Physical Chemistry B, 2017, 121, 3151-3161.	1.2	25
59	Electrochromic polyaniline/aramid nanofiber composites with enhanced cycling stability and film forming property. Journal of Materials Science: Materials in Electronics, 2019, 30, 12718-12728.	1.1	24
60	Highly efficient removal of Cr(<scp>vi</scp>) ions from wastewater by the pomegranate-like magnetic hybrid nano-adsorbent of polydopamine and Fe₃O₄ nanoparticles. New Journal of Chemistry, 2020, 44, 12785-12792.	1.4	24
61	PEDOT nanoparticles fully covered on natural tubular clay for hierarchically porous electrochromic film. Solar Energy Materials and Solar Cells, 2019, 199, 59-65.	3.0	23
62	Understanding nanorheology and surface forces of confined thin films. Korea Australia Rheology Journal, 2014, 26, 3-14.	0.7	22
63	Optically Triggered Dissociation of Kinetically Stabilized Block Copolymer Vesicles in Aqueous Solution. Macromolecular Rapid Communications, 2011, 32, 972-976.	2.0	21
64	Regulation of aggregation-induced emission behaviours and mechanofluorochromism of tetraphenylethene through different oxidation states of sulphur moieties. Journal of Materials Chemistry C, 2019, 7, 8244-8249.	2.7	21
65	Constructing spraying-processed complementary smart windows via electrochromic materials with hierarchical nanostructures. Journal of Materials Chemistry C, 2019, 7, 14855-14860.	2.7	21
66	Facile preparation of hierarchical porous polydopamine microspheres for rapid removal of chromate from the wastewater. Journal of Leather Science and Engineering, 2020, 2, .	2.7	20
67	Tuning protein adsorption on charged polyelectrolyte brushes via salinity adjustment. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2018, 539, 37-45.	2.3	19
68	Acidity-triggered zwitterionic prodrug nano-carriers with AIE properties and amplification of oxidative stress for mitochondria-targeted cancer theranostics. Polymer Chemistry, 2019, 10, 983-990.	1.9	19
69	Mechanistic Understanding and Nanomechanics of Multiple Hydrogen-Bonding Interactions in Aqueous Environment. Journal of Physical Chemistry C, 2019, 123, 4540-4548.	1.5	19
70	High-performance piezoelectric nanogenerator based on electrospun ZnO nanorods/P(VDF-TrFE) composite membranes for energy harvesting application. Journal of Materials Science: Materials in Electronics, 2021, 32, 3966-3978.	1.1	19
71	Starch-derived flocculant with hyperbranched brush architecture for effectively flocculating organic dyes, heavy metals and antibiotics. Journal of the Taiwan Institute of Chemical Engineers, 2022, 135, 104383.	2.7	19
72	Robust polymer nanofilms with bioengineering and environmental applications via facile and highly efficient covalent layer-by-layer assembly. Journal of Materials Chemistry B, 2018, 6, 3742-3750.	2.9	18

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73	Conductive Polymer Nanotubes for Electrochromic Applications. ACS Applied Nano Materials, 2019, 2, 3154-3160.	2.4	18
74	A novel polymer dispersed liquid crystal film prepared by reversible addition fragmentation chain transfer polymerization. European Polymer Journal, 2007, 43, 4037-4042.	2.6	17
75	Effect of the structure of gelators on electro-optical properties of liquid crystal physical gels. Journal of Colloid and Interface Science, 2007, 316, 825-830.	5.0	17
76	Rapid Dewatering and Consolidation of Concentrated Colloidal Suspensions: Mature Fine Tailings via Self-Healing Composite Hydrogel. ACS Applied Materials & Interfaces, 2019, 11, 21610-21618.	4.0	17
77	Solution-processable three-dimensional honeycomb-like poly(3,4-ethylenedioxythiophene) nanostructure networks with very fast response speed for patterned electrochromic devices. Solar Energy Materials and Solar Cells, 2020, 207, 110354.	3.0	16
78	Self-Assembled Polyaniline/Ti3C2Tx Nanocomposites for High-Performance Electrochromic Films. Nanomaterials, 2021, 11, 2956.	1.9	16
79	Boosting heterogeneous Fenton reactions for degrading organic dyes via the photothermal effect under neutral conditions. Environmental Science: Nano, 2022, 9, 532-541.	2.2	16
80	Solution-Processable and Patternable Poly(o-methoxyaniline)-Based Nanocomposite Film for Large-Area Electrochromic Display with Large Optical Modulation and Ultrafast Response Speed. Journal of Physical Chemistry C, 2020, 124, 10898-10906.	1.5	14
81	The Effects of Different Side Groups on the Properties of Polythiophene. Journal of Macromolecular Science - Pure and Applied Chemistry, 2007, 44, 989-993.	1.2	13
82	Influence of matrix glass transition temperature on the memory effect of polymerâ€dispersed liquid crystals. Journal of Polymer Science, Part B: Polymer Physics, 2010, 48, 729-732.	2.4	13
83	Interaction Mechanisms of Zwitterions with Opposite Dipoles in Aqueous Solutions. Langmuir, 2019, 35, 2842-2853.	1.6	13
84	Probing the Interaction Forces of Phenol/Amine Deposition in Wet Adhesion: Impact of Phenol/Amine Mass Ratio and Surface Properties. Langmuir, 2019, 35, 15639-15650.	1.6	12
85	A facile preparation of SiO2/PEDOT core/shell nanoparticle composite film for electrochromic device. Journal of Materials Science: Materials in Electronics, 2019, 30, 3994-4005.	1.1	12
86	A facile and eco-friendly strategy to prepare synthetic syntans for after-treatment of dyed nylon fabrics. Dyes and Pigments, 2017, 146, 199-202.	2.0	11
87	Fine adjustment of network in polymer network liquid crystal film employing RAFT polymerization. Journal of Polymer Science Part A, 2008, 46, 3140-3144.	2.5	10
88	Control of liquid crystal droplet configuration in polymer dispersed liquid crystal with macro-iniferter polystyrene. Liquid Crystals, 2009, 36, 933-938.	0.9	9
89	Effect of polymer structures on electro-optical properties of polymer stabilized liquid crystal films. Frontiers of Chemical Engineering in China, 2008, 2, 265-268.	0.6	8
90	The effect of the resultant microphase-separated structures of polymer matrices on the electro-optical properties of polymer dispersed liquid crystal films by Iniferter polymerization. European Polymer Journal, 2009, 45, 1936-1940.	2.6	8

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91	The improvement of electroâ€optical properties of polymerâ€dispersed liquid crystals using copolymer macroinitiator with different glass transition temperature. Journal of Polymer Science Part A, 2010, 48, 5557-5561.	2.5	8
92	Low-Power Near-Infrared-Responsive Upconversion Nanovectors. ACS Applied Materials & Interfaces, 2021, 13, 7094-7101.	4.0	8
93	Effect of molecular weight of macroâ€iniferter on electroâ€optical properties of polymer dispersed liquid crystal films prepared by iniferter polymerization. Journal of Polymer Science, Part B: Polymer Physics, 2009, 47, 1530-1534.	2.4	7
94	808Ânm Nearâ€Infrared Lightâ€Triggered Payload Release from Green Lightâ€Responsive Donorâ€“Acceptor Stenhouse Adducts Polymerâ€Coated Upconversion Nanoparticles. Macromolecular Rapid Communications, 2021, 42, 2100318.	2.0	6
95	Near-Infrared Laser â€œWeldableâ€Hydrogen-Bonded Hydrogel Sensor Based on Photothermal Gelâ€“Sol Transition. ACS Sustainable Chemistry and Engineering, 2021, 9, 16241-16250.	3.2	6
96	Sustainably closed loop recycling of hierarchically porous polymer microbeads for efficient removal of cationic dyes. Environmental Science: Water Research and Technology, 2022, 8, 575-585.	1.2	6
97	Novel Ti-Coordination Polydopamine Nanocomposite with a Combination of Adsorption, Reduction, and Ion Exchange for Rapid Cr(VI) Removal. Industrial & Engineering Chemistry Research, 2022, 61, 9717-9724.	1.8	6
98	Synthesis and characterization of copolythiophene. Journal of Applied Polymer Science, 2007, 105, 3543-3550.	1.3	5
99	Macro reversible additionâ€“fragmentation chain transfer agent mixture as a means to enhance the electroâ€optical performance of polymerâ€dispersed liquid crystals. Polymer International, 2011, 60, 971-975.	1.6	5
100	Ion-specific effect on self-cleaning performances of polyelectrolyte-functionalized membranes and the underlying nanomechanical mechanism. Journal of Membrane Science, 2021, 634, 119408.	4.1	5
101	Probing Anionâ^Ï€ Interactions between Fluoroarene and Carboxylate Anion in Aqueous Solutions. Journal of Colloid and Interface Science, 2022, 615, 778-785.	5.0	5
102	Longâ€Range Hydrophilic Attraction between Water and Polyelectrolyte Surfaces in Oil. Angewandte Chemie, 2016, 128, 15241-15245.	1.6	4
103	Solution-processable core/shell structured nanocellulose/poly(o-Methoxyaniline) nanocomposites for electrochromic applications. Cellulose, 2020, 27, 9467-9478.	2.4	4
104	Understanding the surface properties and rheology of a silica suspension mediated by a comb-type poly(acrylic acid)/poly(ethylene oxide) (PAA/PEO) copolymer: effect of salinity. Soft Matter, 2018, 14, 4810-4819.	1.2	3
105	Sustainable Indicators Based on Furfural-Derived Colorant-Doped Biobased Polyurethane to Improve Food Safety. ACS Sustainable Chemistry and Engineering, 2022, 10, 8624-8630.	3.2	3
106	Synthesis and Properties of High-Performance Thermoplastic Poly(ester-ether) Elastomers Reinforced by N,Nâ€²-Bis(2-carboxyethyl) Pyromellitimide Moieties. Polymer Science - Series B, 2018, 60, 578-588.	0.3	1