Hanbin Liu

List of Publications by Year
in descending order

54 papers	2,395 citations	218677 26 h-index	206112 48 g-index
54 all docs	54 docs citations	54 times ranked	2598 citing authors

#	Article	IF	Citations
1	CO₂-Responsive polymer materials. Polymer Chemistry, 2017, 8, 12-23.	3.9	160
2	Dually Synergetic Network Hydrogels with Integrated Mechanical Stretchability, Thermal Responsiveness, and Electrical Conductivity for Strain Sensors and Temperature Alertors. ACS Applied Materials & Interfaces, 2018, 10, 14045-14054.	8.0	156
3	Extremely stretchable and electrically conductive hydrogels with dually synergistic networks for wearable strain sensors. Journal of Materials Chemistry C, 2018, 6, 9200-9207.	5.5	154
4	A Flexible Multimodal Sensor That Detects Strain, Humidity, Temperature, and Pressure with Carbon Black and Reduced Graphene Oxide Hierarchical Composite on Paper. ACS Applied Materials & Interfaces, 2019, 11, 40613-40619.	8.0	146
5	Flexible and Degradable Paper-Based Strain Sensor with Low Cost. ACS Sustainable Chemistry and Engineering, 2017, 5, 10538-10543.	6.7	131
6	Block Copolymer Nanoparticles Remove Biofilms of Drug-Resistant Gram-Positive Bacteria by Nanoscale Bacterial Debridement. Nano Letters, 2018, 18, 4180-4187.	9.1	113
7	Robust and sensitive pressure/strain sensors from solution processable composite hydrogels enhanced by hollow-structured conducting polymers. Chemical Engineering Journal, 2021, 403, 126307.	12.7	110
8	CO₂â€Responsive â€œSmartâ€•Singleâ€Walled Carbon Nanotubes. Advanced Materials, 2013, 25, 584-590.	21.0	106
9	Highly Stretchable, Fatigue-Resistant, Electrically Conductive, and Temperature-Tolerant Ionogels for High-Performance Flexible Sensors. ACS Applied Materials & Interfaces, 2019, 11, 26412-26420.	8.0	103
10	From Glutinousâ€Riceâ€Inspired Adhesive Organohydrogels to Flexible Electronic Devices Toward Wearable Sensing, Power Supply, and Energy Storage. Advanced Functional Materials, 2022, 32, .	14.9	101
11	Recyclable, stretchable and conductive double network hydrogels towards flexible strain sensors. Journal of Materials Chemistry C, 2018, 6, 13316-13324.	5.5	87
12	Intrinsically adhesive, highly sensitive and temperature tolerant flexible sensors based on double network organohydrogels. Chemical Engineering Journal, 2021, 413, 127544.	12.7	72
13	Stimuli-responsive cellulose paper materials. Carbohydrate Polymers, 2019, 210, 350-363.	10.2	55
14	CO₂-driven vesicle to micelle regulation of amphiphilic copolymer: random versus block strategy. Polymer Chemistry, 2014, 5, 4756-4763.	3.9	51
15	Flexible, Degradable, and Cost-Effective Strain Sensor Fabricated by a Scalable Papermaking Procedure. ACS Sustainable Chemistry and Engineering, 2018, 6, 15749-15755.	6.7	48
16	Capacitive Pressure Sensors Containing Reliefs on Solution-Processable Hydrogel Electrodes. ACS Applied Materials & Interfaces, 2021, 13, 1441-1451.	8.0	47
17	Flexible and Degradable Multimodal Sensor Fabricated by Transferring Laser-Induced Porous Carbon on Starch Film. ACS Sustainable Chemistry and Engineering, 2020, 8, 527-533.	6.7	45
18	CO₂-switchable multi-compartment micelles with segregated corona. Soft Matter, 2014, 10, 6387-6391.	2.7	40

#	Article	IF	Citations
19	Mussel-inspired self-adhesive hydrogels by conducting free radical polymerization in both aqueous phase and micelle phase and their applications in flexible sensors. Journal of Colloid and Interface Science, 2022, 607, 431-439.	9.4	38
20	Lightâ€Switchable Singleâ€Walled Carbon Nanotubes Based on Hostâ€"Guest Chemistry. Advanced Functional Materials, 2013, 23, 5010-5018.	14.9	37
21	Highâ€Density Oxygen Doping ofÂConductive Metal Sulfides forÂBetterÂPolysulfide Trapping and Li₂Sâ€S₈ÂRedox Kinetics in High Areal Capacity Lithiumâ€"Sulfur Batteries. Advanced Science, 2022, 9, e2200840.	11.2	36
22	Self-repairing flexible strain sensors based on nanocomposite hydrogels for whole-body monitoring. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 592, 124587.	4.7	35
23	Green flexible electronics based on starch. Npj Flexible Electronics, 2022, 6, .	10.7	34
24	Preparation and property of 2â€acrylamideâ€2â€methylpropanesulfonic acid/acrylamide/sodium styrene sulfonate as fluid loss agent for oil well cement. Polymer Engineering and Science, 2012, 52, 431-437.	3.1	31
25	CO₂-induced reversible morphology transition from giant worms to polymersomes assembled from a block-random segmented copolymer. Polymer Chemistry, 2015, 6, 2900-2908.	3.9	30
26	Fabrication of Raspberry-like Cytochrome C Surface-Imprinted Nanoparticles Based on MOF Composites for High-Performance Protein Separation. ACS Applied Materials & Interfaces, 2021, 13, 31010-31020.	8.0	30
27	Local Concentration Effect-Derived Heterogeneous Li₂S₂/Li₂S Deposition on Dual-Phase MWCNT/Cellulose Nanofiber/NiCo₂S₄ Self-Standing Paper for High Performance of Lithium Polysulfide Batteries. ACS Applied Materials & Interfaces, 2020, 12, 15228-15238.	8.0	27
28	Self-Recoverable, Stretchable, and Sensitive Wearable Sensors Based on Ternary Semi-interpenetrating Ionic Hydrogels. ACS Applied Polymer Materials, 2021, 3, 2732-2741.	4.4	27
29	Zwitterionic polymer chain-assisted lysozyme imprinted core-shell carbon microspheres with enhanced recognition and selectivity. Talanta, 2020, 217, 121085.	5.5	26
30	Renewable biomass derived hierarchically porous carbonaceous sponges and their magnetic nanocomposites for removal of organic molecules from water. Journal of Industrial and Engineering Chemistry, 2018, 58, 334-342.	5.8	25
31	Solvent-Driven Formation of Worm-Like Micelles Assembled from a CO₂-Responsive Triblock Copolymer. Langmuir, 2015, 31, 8756-8763.	3.5	24
32	Paper-based flexible strain and pressure sensor with enhanced mechanical strength and super-hydrophobicity that can work under water. Journal of Materials Chemistry C, 2022, 10, 3908-3918.	5.5	22
33	Electrospun Elastic Films Containing AgNW-Bridged MXene Networks as Capacitive Electronic Skins. ACS Applied Materials & Interfaces, 2022, 14, 31225-31233.	8.0	20
34	Insights into the Relationship between CO₂ Switchability and Basicity: Examples of Melamine and Its Derivatives. Langmuir, 2014, 30, 9911-9919.	3.5	19
35	Highâ€Performance Flexible Sensors of Selfâ€Healing, Reversibly Adhesive, and Stretchable Hydrogels for Monitoring Large and Subtle Strains. Macromolecular Materials and Engineering, 2020, 305, 1900621.	3.6	19
36	Supramolecularly Mediated Robust, Antiâ€Fatigue, and Strainâ€Sensitive Macromolecular Microsphere Composite Hydrogels. Macromolecular Materials and Engineering, 2020, 305, 2000080.	3.6	19

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37	Highly compliant and low strain hysteresis sensory electronic skins based on solution processable hybrid hydrogels. Journal of Materials Chemistry C, 2021, 9, 1822-1828.	5.5	19
38	CO₂-Induced Reversible Dispersion of Graphene by a Melamine Derivative. Langmuir, 2015, 31, 12260-12267.	3.5	17
39	A cyclic freezing-thawing approach to layered Janus hydrogel tapes with single-sided adhesiveness for wearable strain sensors. Chemical Engineering Journal, 2022, 446, 137163.	12.7	16
40	MAA-modified and luminescence properties of ZnO quantum dots. Science in China Series B: Chemistry, 2009, 52, 2125-2133.	0.8	14
41	A dual-channel chemosensor based on 8-hydroxyquinoline for fluorescent detection of Hg2+ and colorimetric recognition of Cu2+. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2020, 243, 118784.	3.9	14
42	Preparation and application of coreâ€“shell Fe3O4/polythiophene nanoparticles. Journal of Nanoparticle Research, 2011, 13, 6919-6930.	1.9	13
43	Paper-Based Wearable Sensors for Humidity and VOC Detection. ACS Sustainable Chemistry and Engineering, 2021, 9, 16937-16945.	6.7	13
44	Thermoresponsive, magnetic, adhesive and conductive nanocomposite hydrogels for wireless and non-contact flexible sensors. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 636, 128113.	4.7	12
45	Synthesis and self-assembly of ABC linear triblock copolymers to target CO₂-responsive multicompartment micelles. RSC Advances, 2016, 6, 86728-86735.	3.6	8
46	Pluronic F127 gels fabricated by thiolâ€“ene click chemistry: preparation, gelation dynamics, swelling behaviors and mechanical properties. Polymer Bulletin, 2019, 76, 6049-6061.	3.3	8
47	Gas responsive cellulose fibers for capturing and releasing of dyes and proteins from water by packing a smart separation column. Cellulose, 2020, 27, 7127-7138.	4.9	7
48	A CO₂-switchable amidine monomer: synthesis and characterization. Designed Monomers and Polymers, 2017, 20, 363-367.	1.6	6
49	Hollow Polyaniline Microsphere Functionalized Paper with Multimodal Sensitivity to Strain, Humidity, and Pressure. ACS Applied Electronic Materials, 2020, 2, 247-253.	4.3	6
50	Surface functionalization of cellulose fibers via aza-Michael addition for CO2-assisted water remediation. Applied Surface Science, 2021, 554, 149593.	6.1	6
51	A CO2-switchable surface on aluminium. Applied Surface Science, 2020, 525, 146630.	6.1	5
52	Terpolymerization and performance of 2â€acrylamideâ€2â€methyl propane sulfonic acid / itaconic acid / <i>N</i>â€vinylâ€2â€pyrrolidone. Journal of Applied Polymer Science, 2010, 117, 2951-2957.	2.6	4
53	Poly(NIPAAm-co-Ru(bpy) 3 2+) hydrogels crosslinked by double-bond end-capped Pluronic F127: preparation, properties and coupling with the BZ reaction. Journal of Materials Science, 2018, 53, 5467-5476.	3.7	3
54	Smart Nanotubes: Light-Switchable Single-Walled Carbon Nanotubes Based on Host-Guest Chemistry (Adv. Funct. Mater. 40/2013). Advanced Functional Materials, 2013, 23, 5009-5009.	14.9	0