Guanghui Gao

List of Publications by Year in Descending Order

106 papers	3,323 citations	34 h-index	53 g-index
110 ext. papers	4,762 ext. citations	7.6 avg, IF	6.45 L-index

#	Paper	IF	Citations
106	Accelerated Redox Conversion by CoMoS3/CoS Synergistic Interactions for High-Performance Lithium Sulfur Batteries. *Journal of Electroanalytical Chemistry*, **2022**, 116025	4.1	1
105	Amylopectin based hydrogel strain sensor with good biocompatibility, high toughness and stable anti-swelling in multiple liquid media. *European Polymer Journal*, **2022**, 164, 110981	5.2	3
104	Ultra-thin, transparent, anti-freezing organohydrogel film responded to a wide range of humidity and temperature. *Chemical Engineering Journal*, **2022**, 430, 132919	14.7	5
103	Protein-assisted freeze-tolerant hydrogel with switchable performance toward customizable flexible sensor. *Chemical Engineering Journal*, **2022**, 428, 131171	14.7	10
102	A self-adhesive strain sensor based on the synergy of metal complexation and chemical cross-linking. *Polymer*, **2022**, 124830	3.9	0
101	Compressible piezoresistive pressure sensor based on Ag nanowires wrapped conductive carbonized melamine foam. *Applied Physics A: Materials Science and Processing*, **2022**, 128, 1	2.6	2
100	Nucleotide-Tackified Organohydrogel Electrolyte for Environmentally Self-Adaptive Flexible Supercapacitor with Robust Electrolyte/Electrode Interface. *Small*, **2021**, 17, e2103091	11	5
99	Ultrathin and Highly Tough Hydrogel Films for Multifunctional Strain Sensors. *ACS Applied Materials & Interfaces*, **2021**, 13, 50411-50421	9.5	5
98	Low-Temperature-Resistant Flexible Solid Supercapacitors Based on Organohydrogel Electrolytes and Microvoid-Incorporated Reduced Graphene Oxide Electrodes. *ACS Applied Materials & Interfaces*, **2021**, 13, 12432-12441	9.5	13
97	An environment-stable hydrogel with skin-matchable performance for human-machine interface. *Science China Materials*, **2021**, 64, 2313-2324	7.1	9
96	Bio-Based Hydrogel Transducer for Measuring Human Motion with Stable Adhesion and Ultrahigh Toughness. *ACS Applied Materials & Interfaces*, **2021**, 13, 24173-24182	9.5	17
95	Ionic conductive hydrogels toughened by latex particles for strain sensors. *Science China Technological Sciences*, **2021**, 64, 827-835	3.5	3
94	A wide temperature-tolerant hydrogel electrolyte mediated by phosphoric acid towards flexible supercapacitors. *Chemical Engineering Journal*, **2021**, 413, 127446	14.7	16
93	Biomimetic anti-freezing polymeric hydrogels: keeping soft-wet materials active in cold environments. *Materials Horizons*, **2021**, 8, 351-369	14.4	85
92	Polysaccharide-tackified composite hydrogel for skin-attached sensors. *Journal of Materials Chemistry C*, **2021**, 9, 3343-3351	7.1	11
91	An amylopectin-enabled skin-mounted hydrogel wearable sensor. *Journal of Materials Chemistry B*, **2021**, 9, 1082-1088	7.3	12
90	A DNA-inspired hydrogel mechanoreceptor with skin-like mechanical behavior. *Journal of Materials Chemistry A*, **2021**, 9, 1835-1844	13	26

89	Graphene assisted ion-conductive hydrogel with super sensitivity for strain sensor. *Polymer*, **2021**, 215, 123340	3.9	15
88	Chitosan-driven skin-attachable hydrogel sensors toward human motion and physiological signal monitoring. *Carbohydrate Polymers*, **2021**, 268, 118240	10.3	19
87	Fundamentals of composites containing fibrous materials and hydrogels: A review on design and development for food applications. *Food Chemistry*, **2021**, 364, 130329	8.5	7
86	A bio-inspired self-recoverable polyampholyte hydrogel with low temperature sensing. *Journal of Materials Chemistry B*, **2021**, 9, 2010-2015	7.3	4
85	Muscle-Inspired Anisotropic Hydrogel Strain Sensors.. *ACS Applied Materials & Interfaces*, **2021**,	9.5	8
84	A skin-matchable, recyclable and biofriendly strain sensor based on a hydrolyzed keratin-containing hydrogel. *Journal of Materials Chemistry A*, **2020**, 8, 24175-24183	13	44
83	A transparent and adhesive carboxymethyl cellulose/polypyrrole hydrogel electrode for flexible supercapacitors. *Journal of Materials Chemistry C*, **2020**, 8, 8234-8242	7.1	25
82	Mechanical, adhesive and self-healing ionic liquid hydrogels for electrolytes and flexible strain sensors. *Journal of Materials Chemistry C*, **2020**, 8, 11119-11127	7.1	25
81	Alginate fiber toughened gels similar to skin intelligence as ionic sensors. *Carbohydrate Polymers*, **2020**, 235, 116018	10.3	22
80	Nucleotide-driven skin-attachable hydrogels toward visual human□machine interfaces. *Journal of Materials Chemistry A*, **2020**, 8, 4515-4523	13	32
79	□All-in-one□hydrolyzed keratin protein-modified polyacrylamide composite hydrogel transducer. *Chemical Engineering Journal*, **2020**, 398, 125555	14.7	28
78	Thermo-responsive shape memory sensors based on tough, remolding and anti-freezing hydrogels. *Journal of Materials Chemistry C*, **2020**, 8, 2326-2335	7.1	24
77	Protein and Hydrophobic Association-Regulated Hydrogels with Adhesive Adjustability in Different Materials. *Advanced Materials Interfaces*, **2020**, 7, 1901541	4.6	5
76	Self-healing carrageenan-driven Polyacrylamide hydrogels for strain sensing. *Science China Technological Sciences*, **2020**, 63, 2677-2686	3.5	7
75	Solvent-Resistant and Nonswellable Hydrogel Conductor toward Mechanical Perception in Diverse Liquid Media. *ACS Nano*, **2020**, 14, 13709-13717	16.7	53
74	Skin-Contactable and Antifreezing Strain Sensors Based on Bilayer Hydrogels. *Chemistry of Materials*, **2020**, 32, 8938-8946	9.6	33
73	Durable and Controllable Smart Windows Based on Thermochromic Hydrogels. *ACS Applied Materials & Interfaces*, **2020**, 12, 42193-42201	9.5	19
72	Bio-inspired adhesive and self-healing hydrogels as flexible strain sensors for monitoring human activities. *Materials Science and Engineering C*, **2020**, 106, 110168	8.3	28

71	Fish-inspired anti-icing hydrogel sensors with low-temperature adhesion and toughness. *Journal of Materials Chemistry A*, **2020**, 8, 9373-9381	13	52
70	DNA-inspired anti-freezing wet-adhesion and tough hydrogel for sweaty skin sensor. *Chemical Engineering Journal*, **2020**, 394, 124898	14.7	36
69	Highly sensitive and wearable gel-based sensors with a dynamic physically cross-linked structure for strain-stimulus detection over a wide temperature range. *Journal of Materials Chemistry C*, **2019**, 7, 11303-11314	7.1	33
68	Bioinspired Nucleobase-Driven Nonswellable Adhesive and Tough Gel with Excellent Underwater Adhesion. *ACS Applied Materials & Interfaces*, **2019**, 11, 6644-6651	9.5	62
67	Tough, adhesive and conductive polysaccharide hydrogels mediated by ferric solution. *Carbohydrate Polymers*, **2019**, 211, 1-10	10.3	49
66	Ultra-stretchable wearable strain sensors based on skin-inspired adhesive, tough and conductive hydrogels. *Chemical Engineering Journal*, **2019**, 365, 10-19	14.7	131
65	Ultrastretchable Wearable Strain and Pressure Sensors Based on Adhesive, Tough, and Self-healing Hydrogels for Human Motion Monitoring. *ACS Applied Materials & Interfaces*, **2019**, 11, 25613-25623	9.5	99
64	A flexible, adhesive and self-healable hydrogel-based wearable strain sensor for human motion and physiological signal monitoring. *Journal of Materials Chemistry B*, **2019**, 7, 4638-4648	7.3	116
63	Transparent and conductive amino acid-tackified hydrogels as wearable strain sensors. *Chemical Engineering Journal*, **2019**, 375, 121915	14.7	53
62	Toughening Mechanism of Hydrophobic Association Hydrogels Reinforced by Latex Particles. *Macromolecular Materials and Engineering*, **2019**, 304, 1900151	3.9	
61	Easily Prepared and Reusable Films for Fast-Response Rewritable Light Printing. *ACS Applied Materials & Interfaces*, **2019**, 11, 14322-14328	9.5	15
60	Robust and anti-fatigue hydrophobic association hydrogels assisted by titanium dioxide for photocatalytic activity. *Soft Matter*, **2019**, 15, 3897-3905	3.6	7
59	Highly transparent and stretchable hydrogels with rapidly responsive photochromic performance for UV-irradiated optical display devices. *Reactive and Functional Polymers*, **2019**, 138, 88-95	4.6	8
58	Regulatable Thermochromic Hydrogels via Hydrogen Bonds Driven by Potassium Tartrate Hemihydrate. *ACS Sustainable Chemistry and Engineering*, **2019**, 7, 15036-15043	8.3	6
57	Skin-Inspired Gels with Toughness, Antifreezing, Conductivity, and Remoldability. *ACS Applied Materials & Interfaces*, **2019**, 11, 28336-28344	9.5	59
56	Nucleotide-Regulated Tough and Rapidly Self-Recoverable Hydrogels for Highly Sensitive and Durable Pressure and Strain Sensors. *Chemistry of Materials*, **2019**, 31, 5881-5889	9.6	49
55	High strength, anti-freezing and strain sensing carboxymethyl cellulose-based organohydrogel. *Carbohydrate Polymers*, **2019**, 223, 115051	10.3	34
54	Wearable strain sensors based on casein-driven tough, adhesive and anti-freezing hydrogels for monitoring human-motion. *Journal of Materials Chemistry B*, **2019**, 7, 5230-5236	7.3	64

53	Bioinspired Dynamic Cross-Linking Hydrogel Sensors with Skin-like Strain and Pressure Sensing Behaviors. *Chemistry of Materials*, **2019**, 31, 9522-9531	9.6	98
52	Tough Adhesion of Nucleobase-Tackifed Gels in Diverse Solvents. *Advanced Functional Materials*, **2019**, 29, 1900450	15.6	53
51	Photo-writing self-erasable phosphorescent images using poly(N-vinyl-2-pyrrolidone) as a photochemically deoxygenating matrix. *Chemical Communications*, **2019**, 55, 4299-4302	5.8	9
50	Cartilage-inspired hydrogel strain sensors with ultrahigh toughness, good self-recovery and stable anti-swelling properties. *Journal of Materials Chemistry A*, **2019**, 7, 25441-25448	13	53
49	Gelatin/PVA composited photochromic film for light printing with fast rewritability and long-term storage ability. *Journal of Materials Chemistry C*, **2019**, 7, 12518-12522	7.1	10
48	Conductive Organohydrogels with Ultrastretchability, Antifreezing, Self-Healing, and Adhesive Properties for Motion Detection and Signal Transmission. *ACS Applied Materials & Interfaces*, **2019**, 11, 3428-3437	9.5	63
47	Hydrophobic association hydrogels with excellent mechanical and self-healing properties. *European Polymer Journal*, **2019**, 112, 660-669	5.2	70
46	Mechanical Property of Hydrogels Regulated by Different Ratios of Latex Particles and Hydrophobic Segments. *ChemistrySelect*, **2018**, 3, 4562-4568	1.8	6
45	A tough, stretchable, and extensively sticky hydrogel driven by milk protein. *Polymer Chemistry*, **2018**, 9, 2617-2624	4.9	59
44	Thermo-responsive photoluminescent silver clusters/hydrogel nanocomposites for highly sensitive and selective detection of Cr(VI). *Journal of Materials Chemistry C*, **2018**, 6, 2088-2094	7.1	15
43	Improvement of compatibility and mechanical properties of the poly(lactic acid)/poly(butylene adipate-co-terephthalate) blends and films by reactive extrusion with chain extender. *Polymer Engineering and Science*, **2018**, 58, 1868-1878	2.3	30
42	Low-Cost, Rapidly Responsive, Controllable, and Reversible Photochromic Hydrogel for Display and Storage. *ACS Applied Materials & Interfaces*, **2018**, 10, 13975-13984	9.5	49
41	The role of chemical and physical crosslinking in different deformation stages of hybrid hydrogels. *European Polymer Journal*, **2018**, 100, 86-95	5.2	31
40	Mussel-inspired tough hydrogels with self-repairing and tissue adhesion. *Applied Surface Science*, **2018**, 427, 74-82	6.7	36
39	Anti-fatigue adhesive and tough hydrogels regulated by adenine and uracil. *Polymer Chemistry*, **2018**, 9, 4535-4542	4.9	16
38	Tough hydrogel based on covalent crosslinking and ionic coordination from ferric iron and negative carboxylic groups. *European Polymer Journal*, **2018**, 106, 297-304	5.2	8
37	Adenine-mediated adhesive and tough hydrogel based on hybrid crosslinking. *European Polymer Journal*, **2018**, 106, 139-147	5.2	15
36	Salt-inactive hydrophobic association hydrogels with fatigue resistant and self-healing properties. *Polymer*, **2018**, 150, 194-203	3.9	15

35	Highly Mechanical and Fatigue-Resistant Double Network Hydrogels by Dual Physically Hydrophobic Association and Ionic Crosslinking. *Macromolecular Materials and Engineering*, **2018**, 303, 1800072	3.9	21
34	Robust and flexible strain sensors based on dual physically cross-linked double network hydrogels for monitoring human-motion. *Chemical Engineering Journal*, **2018**, 354, 817-824	14.7	125
33	Multipurpose and Durable Adhesive Hydrogel Assisted by Adenine and Uracil from Ribonucleic Acid. *Chemistry - A European Journal*, **2018**, 24, 15119-15125	4.8	10
32	Tough, sticky and remoldable hydrophobic association hydrogel regulated by polysaccharide and sodium dodecyl sulfate as emulsifiers. *Carbohydrate Polymers*, **2018**, 201, 591-598	10.3	23
31	The effect of methyl group on the mechanical properties of hydrophobic association hydrogel. *Journal of Polymer Science, Part B: Polymer Physics*, **2018**, 56, 1505-1512	2.6	
30	Joint double-network hydrogels with excellent mechanical performance. *Polymer*, **2018**, 153, 607-615	3.9	22
29	A rapidly responsive photochromic hydrogel with high mechanical strength for ink-free printing. *Journal of Materials Chemistry C*, **2018**, 6, 7619-7625	7.1	17
28	Rapidly self-recoverable and fatigue-resistant hydrogels toughened by chemical crosslinking and hydrophobic association. *European Polymer Journal*, **2017**, 89, 185-194	5.2	27
27	Core cross-linked poly(ethylene glycol)-graft-Dextran nanoparticles for reduction and pH dual responsive intracellular drug delivery. *Journal of Colloid and Interface Science*, **2017**, 496, 201-210	9.3	40
26	Fe-, pH-, Thermoresponsive Supramolecular Hydrogel with Multishape Memory Effect. *ACS Applied Materials & Interfaces*, **2017**, 9, 9038-9044	9.5	73
25	Super-tough, ultra-stretchable and strongly compressive hydrogels with core-shell latex particles inducing efficient aggregation of hydrophobic chains. *Soft Matter*, **2017**, 13, 3352-3358	3.6	17
24	Bioinspired Adhesive Hydrogel Driven by Adenine and Thymine. *ACS Applied Materials & Interfaces*, **2017**, 9, 17645-17652	9.5	121
23	A Stimuli-Responsive Hydrogel with Reversible Three-State Transition Controlled by Redox Stimulation. *Macromolecular Chemistry and Physics*, **2017**, 218, 1700002	2.6	3
22	Enhancing the self-recovery and mechanical property of hydrogels by macromolecular microspheres with thermal and redox initiation systems. *RSC Advances*, **2017**, 7, 16015-16021	3.7	12
21	One-step synthesis of photoluminescent carbon dots with excitation-independent emission for selective bioimaging and gene delivery. *Journal of Colloid and Interface Science*, **2017**, 492, 1-7	9.3	89
20	Bioinspired Adhesive Hydrogels Tackified by Nucleobases. *Advanced Functional Materials*, **2017**, 27, 1703132	15.6	103
19	The effect of hydrophobic alkyl chain length on the mechanical properties of latex particle hydrogels. *RSC Advances*, **2017**, 7, 44673-44679	3.7	25
18	Highly tough, anti-fatigue and rapidly self-recoverable hydrogels reinforced with core-shell inorganic-organic hybrid latex particles. *Soft Matter*, **2017**, 13, 6059-6067	3.6	40

17	Mechanical and Rheological Behavior of Hybrid Cross-Linked Polyacrylamide/Cationic Micelle Hydrogels. *Macromolecular Materials and Engineering*, **2017**, 302, 1700402	3.9	24
16	Tough and pH-sensitive hydroxypropyl guar gum/polyacrylamide hybrid double-network hydrogel. *Chemical Engineering Journal*, **2016**, 306, 953-960	14.7	44
15	A Multiresponsive Anisotropic Hydrogel with Macroscopic 3D Complex Deformations. *Advanced Functional Materials*, **2016**, 26, 8670-8676	15.6	153
14	Mussel-inspired multifunctional supramolecular hydrogels with self-healing, shape memory and adhesive properties. *Polymer Chemistry*, **2016**, 7, 5343-5346	4.9	76
13	Characterization of UV-curable poly(ethylene glycol) diacrylate based hydrogels. *Chemical Research in Chinese Universities*, **2015**, 31, 1046-1050	2.2	5
12	Effect of Entanglement Density on Mechanical Properties and Deformation Behavior of Rubber-Modified PVC/MSAN Blends. *Industrial & Engineering Chemistry Research*, **2013**, 52, 12567-12573	3.9	11
11	Co-toughened Polystyrene by Submicrometer-Sized Core–Shell Rubber Particles and Micrometer-Sized Salami Rubber Particles. *Industrial & Engineering Chemistry Research*, **2013**, 52, 5079-5084	3.9	4
10	An acidic pH-triggered polymeric micelle for dual-modality MR and optical imaging. *Journal of Materials Chemistry*, **2010**, 20, 5454		34
9	Different deformation mechanisms of two modified-polystyrene bimodal systems. *Polymer International*, **2010**, 59, n/a-n/a	3.3	6
8	Synthesis of sub-micrometer core–shell rubber particles with 1,2-azobisisobutyronitrile as initiator and deformation mechanisms of modified polystyrene under various conditions. *Polymer International*, **2009**, 58, 1196-1201	3.3	2
7	Influence of core–shell rubber particles synthesized with different initiation systems on the impact toughness of modified polystyrene. *Journal of Applied Polymer Science*, **2007**, 103, 738-744	2.9	16
6	Deformation mechanism of polystyrene toughened with sub-micrometer monodisperse rubber particles. *Polymer International*, **2006**, 55, 1215-1221	3.3	25
5	A 3D honeycomb graphene structure for wearable piezoresistive pressure sensor with high sensitivity. *Journal of Materials Science: Materials in Electronics*,1	2.1	1
4	A highly conductive hydrogel driven by phytic acid towards a wearable sensor with freezing and dehydration resistance. *Journal of Materials Chemistry A*,	13	11
3	Underwater flexible mechanoreceptors constructed by anti-swelling self-healable hydrogel. *Science China Materials*,1	7.1	5
2	Flexible and wearable strain sensors based on conductive hydrogels. *Journal of Polymer Science*,	2.4	3
1	Preparation and application of graphene-based wearable sensors. *Nano Research*,	10	4