Shimei Xu

List of Publications by Year
in descending order

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82 papers	2,261 citations	201674 27 h-index	265206 42 g-index
83 all docs	83 docs citations	83 times ranked	2468 citing authors

#	Article	IF	Citations
1	Multicycling of Epoxy Thermoset Through a Twoâ€Step Strategy of Alcoholysis and Hydrolysis using a Selfâ€Separating Catalysis System. ChemSusChem, 2022, 15, .	6.8	15
2	Chemical recovery of thermosetting unsaturated polyester resins. Green Chemistry, 2022, 24, 701-712.	9.0	29
3	From trash to treasure: Chemical recycling and upcycling of commodity plastic waste to fuels, high-valued chemicals and advanced materials. Journal of Energy Chemistry, 2022, 69, 369-388.	12.9	91
4	Cosolvent-promoted selective non-aqueous hydrolysis of PET wastes and facile product separation. Green Chemistry, 2022, 24, 3284-3292.	9.0	21
5	Physical Cross-Linkage Constructed Supramolecular Conductive Hydrogel as Sustainable and Remolded Epidermal Electronics. ACS Applied Polymer Materials, 2022, 4, 2585-2594.	4.4	6
6	Mechanically tunable ion-crosslinked alginate-based gradient hydrogels by electrolysis-electrophoresis method. Carbohydrate Polymers, 2022, 289, 119473.	10.2	2
7	Recovery and Reutilization of Epoxy Thermoset via Acidic Ion Exchange Resin-Induced Controllable Oxidative Degradation and Subsequent Microspheroidization. ACS Sustainable Chemistry and Engineering, 2022, 10, 5582-5589.	6.7	10
8	Multiple functional materials from crushing waste thermosetting resins. Materials Horizons, 2021, 8, 234-243.	12.2	28
9	Recycling waste thermosetting unsaturated polyester resins into oligomers for preparing amphiphilic aerogels. Waste Management, 2021, 126, 89-96.	7.4	16
10	PEGâ€Induced Controllable Thinâ^'Thickness Gradient and Water Retention: A Simple Way to Programme Deformation of Hydrogel Actuators. Macromolecular Rapid Communications, 2021, 42, e2000749.	3.9	7
11	Temperature-Responsive Intumescent Chemistry toward Fire Resistance and Super Thermal Insulation under Extremely Harsh Conditions. Chemistry of Materials, 2021, 33, 6018-6028.	6.7	51
12	Fabrication of Stiffness Gradient Nanocomposite Hydrogels for Mimicking Cell Microenvironment. Macromolecular Research, 2021, 29, 453-461.	2.4	2
13	Fast microwave-assisted hydrolysis of unsaturated polyester resin into column packing for rapid purifying of dye wastewater. Journal of Hazardous Materials, 2020, 384, 121465.	12.4	18
14	Multidimensional gradient hydrogel and its application in sustained release. Colloid and Polymer Science, 2020, 298, 1187-1195.	2.1	4
15	High-Efficiency Hydrolysis of Thermosetting Polyester Resins into Porous Functional Materials Using Low-Boiling Aqueous Solvents. ACS Sustainable Chemistry and Engineering, 2020, 8, 16010-16019.	6.7	14
16	Dual Cross-Linked Ion-Based Temperature-Responsive Conductive Hydrogels with Multiple Sensors and Steady Electrocardiogram Monitoring. Chemistry of Materials, 2020, 32, 7670-7678.	6.7	54
17	A dimensional stable hydrogel-born foam with enhanced mechanical and thermal insulation and fire-retarding properties via fast microwave foaming. Chemical Engineering Journal, 2020, 399, 125781.	12.7	27
18	A nonswellable gradient hydrogel with tunable mechanical properties. Journal of Materials Chemistry B, 2020, 8, 2702-2708.	5.8	15

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19	Recycling waste epoxy resin as hydrophobic coating of melamine foam for high-efficiency oil absorption. Applied Surface Science, 2020, 529, 147151.	6.1	44
20	Energy-Efficient Conversion of Amine-Cured Epoxy Resins into Functional Chemicals Based on Swelling-Induced Nanopores. ACS Sustainable Chemistry and Engineering, 2020, 8, 2226-2235.	6.7	35
21	Ultrahigh-Temperature Insulating and Fire-Resistant Aerogels from Cationic Amylopectin and Clay via a Facile Route. ACS Sustainable Chemistry and Engineering, 2019, 7, 11582-11592.	6.7	62
22	From waste epoxy resins to efficient oil/water separation materials via a microwave assisted pore-forming strategy. Materials Horizons, 2019, 6, 1733-1739.	12.2	43
23	A fast and mild closed-loop recycling of anhydride-cured epoxy through microwave-assisted catalytic degradation by trifunctional amine and subsequent reuse without separation. Green Chemistry, 2019, 21, 2487-2493.	9.0	75
24	Autofluorescence of hydrogels without a fluorophore. Soft Matter, 2019, 15, 3588-3594.	2.7	25
25	Synergistic catalysis of binary alkalis for the recycling of unsaturated polyester under mild conditions. Green Chemistry, 2019, 21, 3006-3012.	9.0	31
26	Ultra-strong mechanical property and force-driven malleability of water-poor hydrogels. Journal of Colloid and Interface Science, 2019, 542, 281-288.	9.4	9
27	Biomimetic Color-Changing Hierarchical and Gradient Hydrogel Actuators Based on Salt-Induced Microphase Separation. ACS Applied Materials & Interfaces, 2019, 11, 48428-48436.	8.0	39
28	Porous gel materials from waste thermosetting unsaturated polyester for high-efficiency wastewater treatment. Chemical Engineering Journal, 2019, 361, 21-30.	12.7	39
29	A tough and fluorescent dual nanocomposite hydrogel based on SiO2@TiO2 core-shell nanoparticles. Applied Surface Science, 2019, 467-468, 588-595.	6.1	9
30	Tuning morphology and mechanical property of polyacrylamide/Laponite/titania dual nanocomposite hydrogels by titania. Polymer Composites, 2019, 40, E466.	4.6	20
31	Fast swelling behaviors of thermosensitive poly(Nâ€isopropylacrylamideâ€coâ€methacryloxyethyltrimethyl ammonium) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 5 Science, 2018, 135, 46375.	2.6	10
32	A Fast, Reversible, and Robust Gradient Nanocomposite Hydrogel Actuator with Waterâ€Promoted Thermal Response. Macromolecular Rapid Communications, 2018, 39, e1700863.	3.9	60
33	Super tough bentonite/SiO 2 -based dual nanocomposite hydrogels using silane as both an intercalator and a crosslinker. Applied Clay Science, 2018, 156, 53-60.	5.2	16
34	Photothermal Nanocomposite Hydrogel Actuator with Electric-Field-Induced Gradient and Oriented Structure. ACS Applied Materials & Interfaces, 2018, 10, 7688-7692.	8.0	137
35	Cellulose acetate-based SiO2/TiO2 hybrid microsphere composite aerogel films for water-in-oil emulsion separation. Applied Surface Science, 2018, 435, 609-616.	6.1	73
36	Strengthening Network of Polyacrylic Acid/Silica Nanocomposite Hydrogels. Polymer Composites, 2018, 39, 3969-3976.	4.6	10

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37	Rapid Recovery Hydrogel Actuators in Air with Bionic Large-Ranged Gradient Structure. ACS Applied Materials & Interfaces, 2018, 10, 40125-40131.	8.0	89
38	Ag2O/sodium alginate supramolecular hydrogel as a film photocatalyst for removal of organic dyes in wastewater. RSC Advances, 2017, 7, 15077-15083.	3.6	22
39	Strengthening mechanism of poly(acrylamide)/graphene oxide/laponite dual nanocomposite hydrogels. Journal of Applied Polymer Science, 2017, 134, .	2.6	18
40	Flame-Retardant Flexible Polyurethane Foams with Highly Efficient Melamine Salt. Industrial & Engineering Chemistry Research, 2017, 56, 7112-7119.	3.7	75
41	Dispersion and rheological behaviors of laponite in 2-acrylamido-2-methylpropanesulfonic acid solution. Applied Clay Science, 2017, 137, 94-100.	5.2	5
42	Stretchable dual nanocomposite hydrogels strengthened by physical interaction between inorganic hybrid crosslinker and polymers. Applied Clay Science, 2017, 150, 71-80.	5.2	16
43	A gradient Laponite-crosslinked nanocomposite hydrogel with anisotropic stress and thermo-response. Applied Clay Science, 2017, 148, 77-82.	5.2	25
44	Affinityâ€tuned peroxidaseâ€like activity of hydrogelâ€supported <scp>Fe₃O₄</scp> nanozyme through alteration of crosslinking concentration. Journal of Applied Polymer Science, 2016, 133, .	2.6	18
45	Direct determination of creatinine based on poly(ethyleneimine)/phosphotungstic acid multilayer modified electrode. Talanta, 2016, 151, 114-118.	5.5	18
46	Synthesis and characterization of a porous and hydrophobic cellulose-based composite for efficient and fast oilâ€“water separation. Carbohydrate Polymers, 2016, 140, 188-194.	10.2	66
47	Tough dual nanocomposite hydrogels with inorganic hybrid crosslinking. Soft Matter, 2016, 12, 1649-1654.	2.7	36
48	Adsorption behaviors of ammonium nitrogen by an amphoteric hydrogel. Desalination and Water Treatment, 2016, 57, 5753-5759.	1.0	7
49	pH/temperature double responsive behaviors and mechanical strength of laponite-crosslinked poly(DEA-co -DMAEMA) nanocomposite hydrogels. Journal of Polymer Science, Part B: Polymer Physics, 2015, 53, 876-884.	2.1	34
50	Synthesis of amphoteric nanocomposite hydrogels with ultrahigh tensibility. Polymer Composites, 2015, 36, 538-544.	4.6	17
51	Unusual thermo-responsive behaviors of poly(NIPAM-co-AM)/PEG/PTA composite hydrogels. Materials Letters, 2015, 143, 24-26.	2.6	15
52	Preparation and characterization of covalently bonded <scp>PVA</scp>/Laponite/<scp>HAPI</scp> nanocomposite multilayer freestanding films by layerâ€byâ€layer assembly. Journal of Polymer Science, Part B: Polymer Physics, 2015, 53, 545-551.	2.1	11
53	Saline-enabled self-healing of polyelectrolyte multilayer films. RSC Advances, 2015, 5, 8877-8881.	3.6	5
54	Electrochemical sensor for detecting both oxidizing and reducing compounds based on poly(ethyleneimine)/phosphotungstic acid multilayer film modified electrode. Electrochimica Acta, 2015, 174, 706-711.	5.2	8

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55	A facile approach to prepare strong poly(acrylic acid)/LAPONITEÂ® ionic nanocomposite hydrogels at high clay concentrations. RSC Advances, 2015, 5, 60152-60160.	3.6	19
56	Electric field-induced gradient strength in nanocomposite hydrogel through gradient crosslinking of clay. Journal of Materials Chemistry B, 2015, 3, 4426-4430.	5.8	34
57	A robust and coarse surface mesh modified by interpenetrating polymer network hydrogel for oilâ€water separation. Journal of Applied Polymer Science, 2015, 132, .	2.6	8
58	Organo-montmorillonite supported titania nanocomposite synthesized by using poly(methyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 627 22, 3189-3198.	4.9	13
59	Fabrication of polyelectrolyte/amine-modified silica composite thin film by coupling of layer-by-layer assembly and solâ€“gel techniques. Journal of Polymer Research, 2014, 21, 1.	2.4	2
60	Enhanced Salt Tolerance of Polyurethane Based Multilayer Films. Chinese Journal of Chemistry, 2014, 32, 914-920.	4.9	1
61	Layerâ€byâ€layer assembled hydrogel nanocomposite film with a high loading capacity. Journal of Applied Polymer Science, 2014, 131, .	2.6	5
62	Surfactant-assisted synthesis of a transparent ionic nanocomposite hydrogel. Applied Clay Science, 2014, 101, 335-338.	5.2	11
63	Preparation and mechanical properties of a transparent ionic nanocomposite hydrogel. Journal of Polymer Research, 2014, 21, 1.	2.4	16
64	Preparation of amphoteric nanocomposite hydrogels based on exfoliation of montmorillonite via in-situ intercalative polymerization of hydrophilic cationic and anionic monomers. Applied Clay Science, 2014, 97-98, 132-137.	5.2	33
65	A transparent Laponite polymer nanocomposite hydrogel synthesis via in-situ copolymerization of two ionic monomers. Applied Clay Science, 2013, 72, 196-200.	5.2	39
66	Layerâ€byâ€layer assembly of poly(allylamine hydrochloride)/polyurethane and its loading and release behavior for methylene orange. Journal of Applied Polymer Science, 2013, 129, 2070-2075.	2.6	15
67	Synthesis and mechanical strength of a novel double network nanocomposite hydrogel with coreâ€shell structure. Polymers for Advanced Technologies, 2012, 23, 736-741.	3.2	10
68	Controlled loading and release of methylene blue from LbL polyurethane/poly(acrylic acid) film. Polymers for Advanced Technologies, 2012, 23, 1283-1286.	3.2	17
69	Controlled loading and release of methylene blue for hydrogen-bonded LbL poly(vinyl) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 18	2.4	10
70	One-pot preparation of ultrastrong double network hydrogels. Journal of Polymer Research, 2012, 19, 1.	2.4	24
71	Mechanically strengthened double network composite hydrogels with high water content: a preliminary study. Journal of Polymer Research, 2011, 18, 1131-1136.	2.4	15
72	Preparation and swelling behavior of pH-sensitive and saltresistant amphoteric semi-IPNs hydrogels based on starch phosphate and poly[2-[(methacryloyloxy) ethyl] trimethylammonium] chloride. E-Polymers, 2010, 10, .	3.0	1

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73	Synthesis of SiO2-polyacrylic acid hybrid hydrogel with high mechanical properties and salt tolerance using sodium silicate precursor through solâ€“gel process. Materials Letters, 2009, 63, 527-529.	2.6	59
74	Synthesis and properties of a novel double network nanocomposite hydrogel. Polymers for Advanced Technologies, 2009, 20, 645-649.	3.2	23
75	The swelling behaviors and network parameters of cationic starchâ€gâ€acrylic acid/poly(dimethyldiallylammonium chloride) semiâ€interpenetrating polymer networks hydrogels. Journal of Applied Polymer Science, 2008, 110, 1828-1836.	2.6	34
76	Preparation and characteristic of electric stimuli responsive hydrogel composed of polyvinyl alcohol/poly (sodium maleateâ€coâ€sodium acrylate). Journal of Applied Polymer Science, 2008, 107, 391-395.	2.6	30
77	An amphoteric semi-IPN nanocomposite hydrogels based on intercalation of cationic polyacrylamide into bentonite. Materials Letters, 2008, 62, 3999-4002.	2.6	18
78	Preparation and swelling behavior of amphoteric superabsorbent composite with semi-IPN composed of poly(acrylic acid)/Ca-bentonite/poly(dimethyldiallylammonium chloride). Polymers for Advanced Technologies, 2007, 18, 194-199.	3.2	23
79	Adsorption behaviors of acid and basic dyes on crosslinked amphoteric starch. Chemical Engineering Journal, 2006, 117, 161-167.	12.7	101
80	Adsorption Behavior of Acid Yellow G by Highly-Crosslinked Amphoteric Starch. Journal of Polymer Research, 2006, 13, 91-95.	2.4	13
81	Salt and pH responsive property of a starch-based amphoteric superabsorbent hydrogel with quaternary ammonium and carboxyl groups (II). Journal of Applied Polymer Science, 2006, 101, 1995-1999.	2.6	21
82	Effect of the anionic-group/cationic-group ratio on the swelling behavior and controlled release of agrochemicals of the amphoteric, superabsorbent polymer poly(acrylic) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 377 Td (acid-co-diallyldime	2.6	32