Zhenyang Luo

List of Publications by Year
in descending order

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43 papers	852 citations	516215 16 h-index	525886 27 g-index
44 all docs	44 docs citations	44 times ranked	679 citing authors

#	Article	IF	Citations
1	A self-healing elastomer based on an intrinsic non-covalent cross-linking mechanism. Journal of Materials Chemistry A, 2019, 7, 15207-15214.	5.2	106
2	Fabrication of mechanically tough and self-recoverable nanocomposite hydrogels from polyacrylamide grafted cellulose nanocrystal and poly(acrylic acid). Carbohydrate Polymers, 2018, 198, 1-8.	5.1	63
3	Preparation of a novel lignin-based flame retardant for epoxy resin. Materials Chemistry and Physics, 2021, 259, 124101.	2.0	53
4	Synthesis of Soy-Polyols Using a Continuous Microflow System and Preparation of Soy-based Polyurethane Rigid Foams. ACS Sustainable Chemistry and Engineering, 2015, 3, 1197-1204.	3.2	39
5	Highly Efficient, Environmentally Friendly Lignin-Based Flame Retardant Used in Epoxy Resin. ACS Omega, 2020, 5, 32084-32093.	1.6	38
6	Twoâ€step fabrication of ligninâ€based flame retardant for enhancing the thermal and fire retardancy properties of epoxy resin composites. Polymer Composites, 2020, 41, 2025-2035.	2.3	38
7	An Easy-to-Prepare Flexible Dual-Mode Fiber Membrane for Daytime Outdoor Thermal Management. Advanced Fiber Materials, 2022, 4, 1058-1068.	7.9	38
8	A new triboelectric nanogenerator with excellent electric breakdown self-healing performance. Nano Energy, 2021, 85, 105990.	8.2	33
9	Preparation and application of dielectric polymers with high permittivity and low energy loss: A mini review. Journal of Applied Polymer Science, 2022, 139, .	1.3	33
10	Molecular dynamics simulation insight into the temperature dependence and healing mechanism of an intrinsic self-healing polyurethane elastomer. Physical Chemistry Chemical Physics, 2020, 22, 17620-17631.	1.3	30
11	Multifunctional Biomimetic Nanovaccines Based on Photothermal and Weakâ€Immunostimulatory Nanoparticulate Cores for the Immunotherapy of Solid Tumors. Advanced Materials, 2022, 34, e2108012.	11.1	25
12	Tough and self-healable nanocomposite hydrogels from poly(acrylic acid) and polyacrylamide grafted cellulose nanocrystal crosslinked by coordination bonds and hydrogen bonds. Cellulose, 2019, 26, 6701-6711.	2.4	24
13	Microcrystalline cellulose as reactive reinforcing fillers for epoxidized soybean oil polymer composites. Journal of Applied Polymer Science, 2015, 132, .	1.3	23
14	A mussel-inspired high bio-content thermosetting polyimine polymer with excellent adhesion, flame retardancy, room-temperature self-healing and diverse recyclability. Journal of Materials Chemistry A, 2022, 10, 11363-11374.	5.2	23
15	Stress-responsive properties of metallocenes in metallopolymers. Polymer Chemistry, 2021, 12, 2509-2521.	1.9	21
16	Novel Molecular-Level Insight into the Self-Healing Behavior and Mechanism of Polyurethane-Urea Elastomer Based on a Noncovalent Strategy. Macromolecules, 2022, 55, 4776-4789.	2.2	19
17	Temperature dependence of the interfacial bonding characteristics of silica/styrene butadiene rubber composites: a molecular dynamics simulation study. RSC Advances, 2019, 9, 40062-40071.	1.7	17
18	Dual physically crosslinked nanocomposite hydrogels reinforced by poly(N-vinylpyrrolidone) grafted cellulose nanocrystal with high strength, toughness, and rapid self-recovery. Cellulose, 2020, 27, 9913-9925.	2.4	17

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19	Fabrication of tough, selfâ€recoverable, and electrically conductive hydrogels byin situreduction of poly(acrylic acid) grafted graphene oxide in polyacrylamide hydrogel matrix. Journal of Applied Polymer Science, 2020, 137, 48781.	1.3	16
20	Understanding Mechanism of Adsorption in the Decolorization of Aqueous Methyl Violet (6B) Solution by Okra Polysaccharides: Experiment and Theory. ACS Omega, 2019, 4, 17880-17889.	1.6	15
21	A combined experimental and molecular dynamics simulation study of an intrinsic self-healing polyurethane elastomer based on a dynamic non-covalent mechanism. Soft Matter, 2021, 17, 2191-2204.	1.2	14
22	The Mechanochemistry of Carboranes. Angewandte Chemie - International Edition, 2022, 61, .	7.2	14
23	Molecular Dynamics Simulation Study on Two-Component Solubility Parameters of Carbon Nanotubes and Precisely Tailoring the Thermodynamic Compatibility between Carbon Nanotubes and Polymers. Langmuir, 2020, 36, 9291-9305.	1.6	13
24	Synthetic strategies, properties, and applications of unsaturated main-chain metallopolymers prepared by olefin metathesis polymerization. Polymer Reviews, 2021, 61, 415-455.	5.3	12
25	Photo-induced actuator using temperature and light dual responsive azobenzene containing ion gel in ionic liquid. European Polymer Journal, 2020, 123, 109446.	2.6	10
26	Sustainable Thermoplastic Elastomers Derived from Lignin Bioâ€Oils via an ABA Triblock Copolymer Strategy. Macromolecular Chemistry and Physics, 2021, 222, 2100055.	1.1	10
27	Thermal performance and thermal decomposition kinetics of a novel lignin-based epoxy resin containing phosphorus and nitrogen elements. Journal of Thermal Analysis and Calorimetry, 2022, 147, 5237-5253.	2.0	10
28	Sequence-Controlled Metallopolymers: Synthesis and Properties. Macromolecules, 2021, 54, 9174-9184.	2.2	10
29	Novel Intrinsic Selfâ€Healing Polyâ€Siliconeâ€Urea with Superâ€Low Ice Adhesion Strength. Small, 2022, 18, e2200532.	5.2	10
30	Microstructure and Thermal and Tensile Properties of Poly(vinyl alcohol) Nanocomposite Films Reinforced by Polyacrylamide Grafted Cellulose Nanocrystals. Journal of Macromolecular Science - Physics, 2020, 59, 223-234.	0.4	9
31	Synthesis of site-specific charged metallopolymers via reversible addition-fragmentation chain transfer (RAFT) polymerization. Polymer, 2020, 187, 122095.	1.8	8
32	Precisely tailoring the thermodynamic compatibility between single-walled carbon nanotubes and styrene butadiene rubber via fully atomistic molecular dynamics simulation and theoretical approach. Computational Materials Science, 2021, 186, 109995.	1.4	8
33	Main-Chain Ferrocene-Containing Polymers Prepared by Acyclic Diene Metathesis Polymerization: A Review. Current Organic Chemistry, 2020, 24, 1010-1017.	0.9	8
34	Hydroxyethyl cellulose-based electrically conductive, mechanically resistant, strain-sensitive self-healing hydrogels. Cellulose, 2022, 29, 5725-5743.	2.4	8
35	Self-Assembly of Diblock Copolymers Containing Thermo- and Photoresponsive Lower Critical Solution Temperature Phase Behavior Polymer with Tunable Assembly Temperature in an Ionic Liquid Mixture. ACS Omega, 2019, 4, 11229-11236.	1.6	7
36	Preparation of Poly(Acrylic Acid) Grafted Reduced Graphene Oxide/Polyacrylamide Composite Hydrogels with Good Electronic and Mechanical Properties by in-situ Polymerization. Journal of Macromolecular Science - Physics, 2021, 60, 589-602.	0.4	6

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37	Insights into the preparation and performance of <scp>SiO₂</scp>@graphene oxide/epoxidized solutionâ€polymerized styrene butadiene rubber composites through experiments and molecular simulations. Journal of Applied Polymer Science, 2022, 139, .	1.3	6
38	Superior thermal stability and smoke suppression of epoxy resin composites with graphene/ LDH phosphorusâ€rich hybrids. Journal of Applied Polymer Science, 2020, 137, 49386.	1.3	5
39	Preparation and characterization of tough and highly resilient nanocomposite hydrogels reinforced by surfaceâ€grafted cellulose nanocrystals. Journal of Applied Polymer Science, 2021, 138, 51166.	1.3	5
40	New Insights into the Quantitative Relationship between Surface Chemistry of Fullerene (C60) and Solubility Parameters and Compatibility with Polymers. Journal of Physical Chemistry B, 2021, 125, 5420-5433.	1.2	4
41	The Mechanochemistry of Carboranes. Angewandte Chemie, 0, , .	1.6	2
42	Understanding the Selfâ€Healing Mechanism of Polyurethane Elastomer Based on Hydrogen Bonding Interactions through Molecular Dynamics Simulation. Macromolecular Theory and Simulations, 0, , 2100051.	0.6	1
43	Multifunctional Biomimetic Nanovaccines Based on Photothermal and Weakâ€Immunostimulatory Nanoparticulate Cores for the Immunotherapy of Solid Tumors (Adv. Mater. 9/2022). Advanced Materials, 2022, 34, .	11.1	0