Weiwei Lei

List of Publications by Year
in descending order

179 papers	9,906 citations	36203 51 h-index	42291 92 g-index
179 all docs	179 docs citations	179 times ranked	8863 citing authors

#	Article	IF	Citations
1	Wearable, Healable, and Adhesive Epidermal Sensors Assembled from Musselâ€Inspired Conductive Hybrid Hydrogel Framework. Advanced Functional Materials, 2017, 27, 1703852.	7.8	617
2	Highly Sensitive, Wearable, Durable Strain Sensors and Stretchable Conductors Using Graphene/Silicon Rubber Composites. Advanced Functional Materials, 2016, 26, 7614-7625.	7.8	339
3	Surface Modification of Aramid Fibers by Bio-Inspired Poly(dopamine) and Epoxy Functionalized Silane Grafting. ACS Applied Materials & Interfaces, 2014, 6, 21730-21738.	4.0	323
4	Nanoparticle Dispersion and Aggregation in Polymer Nanocomposites: Insights from Molecular Dynamics Simulation. Langmuir, 2011, 27, 7926-7933.	1.6	295
5	Electrospun Microfiber Membranes Embedded with Drug-Loaded Clay Nanotubes for Sustained Antimicrobial Protection. ACS Nano, 2015, 9, 1600-1612.	7.3	271
6	A Facile Approach to Chemically Modified Graphene and its Polymer Nanocomposites. Advanced Functional Materials, 2012, 22, 2735-2743.	7.8	244
7	Bioinspired Engineering of Sacrificial Metalâ€“Ligand Bonds into Elastomers with Supramechanical Performance and Adaptive Recovery. Macromolecules, 2016, 49, 1781-1789.	2.2	238
8	Novel percolation phenomena and mechanism of strengthening elastomers by nanofillers. Physical Chemistry Chemical Physics, 2010, 12, 3014.	1.3	207
9	Molecular Dynamics Study on Nanoparticle Diffusion in Polymer Melts:â€‰ A Test of the Stokesâ€“Einstein Law. Journal of Physical Chemistry C, 2008, 112, 6653-6661.	1.5	195
10	Using a green method to develop graphene oxide/elastomers nanocomposites with combination of high barrier and mechanical performance. Composites Science and Technology, 2014, 92, 1-8.	3.8	179
11	Surface Silverized Meta-Aramid Fibers Prepared by Bio-inspired Poly(dopamine) Functionalization. ACS Applied Materials & Interfaces, 2013, 5, 2062-2069.	4.0	172
12	Effect of the temperature on surface modification of silica and properties of modified silica filled rubber composites. Composites Part A: Applied Science and Manufacturing, 2014, 62, 52-59.	3.8	172
13	Biobased Poly(propylene sebacate) as Shape Memory Polymer with Tunable Switching Temperature for Potential Biomedical Applications. Biomacromolecules, 2011, 12, 1312-1321.	2.6	170
14	Malleable, Mechanically Strong, and Adaptive Elastomers Enabled by Interfacial Exchangeable Bonds. Macromolecules, 2017, 50, 7584-7592.	2.2	160
15	Preparation, microstructure, and microstructure-properties relationship of thermoplastic vulcanizates (TPVs): A review. Progress in Polymer Science, 2018, 79, 61-97.	11.8	158
16	Progress in bio-inspired sacrificial bonds in artificial polymeric materials. Chemical Society Reviews, 2017, 46, 6301-6329.	18.7	157
17	Polyvinyl Alcohol-Stabilized Liquid Metal Hydrogel for Wearable Transient Epidermal Sensors. ACS Applied Materials & Interfaces, 2019, 11, 47358-47364.	4.0	148
18	Photothermal-Induced Self-Healable and Reconfigurable Shape Memory Bio-Based Elastomer with Recyclable Ability. ACS Applied Materials & Interfaces, 2019, 11, 1469-1479.	4.0	142

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19	A combined experiment and molecular dynamics simulation study of hydrogen bonds and free volume in nitrile-butadiene rubber/hindered phenol damping mixtures. Journal of Materials Chemistry, 2012, 22, 12339.	6.7	133
20	Transport performance in novel elastomer nanocomposites: Mechanism, design and control. Progress in Polymer Science, 2016, 61, 29-66.	11.8	128
21	An advanced elastomer with an unprecedented combination of excellent mechanical properties and high self-healing capability. Journal of Materials Chemistry A, 2017, 5, 25660-25671.	5.2	128
22	Melt compounding with graphene to develop functional, high-performance elastomers. Nanotechnology, 2013, 24, 165601.	1.3	124
23	Synthesis and Characterization of Novel Soybean-Oil-Based Elastomers with Favorable Processability and Tunable Properties. Macromolecules, 2012, 45, 9010-9019.	2.2	123
24	One-Piece Triboelectric Nanosensor for Self-Triggered Alarm System and Latent Fingerprint Detection. ACS Nano, 2016, 10, 10366-10372.	7.3	108
25	Multifunctional Vitrimer-Like Polydimethylsiloxane (PDMS): Recyclable, Self-Healable, and Water-Driven Malleable Covalent Networks Based on Dynamic Imine Bond. Industrial & Engineering Chemistry Research, 2019, 58, 1212-1221.	1.8	108
26	Tailoring Dielectric and Actuated Properties of Elastomer Composites by Bioinspired Poly(dopamine) Encapsulated Graphene Oxide. ACS Applied Materials & Interfaces, 2015, 7, 10755-10762.	4.0	105
27	Interface Engineering toward Promoting Silanization by Ionic Liquid for High-Performance Rubber/Silica Composites. Industrial & Engineering Chemistry Research, 2015, 54, 10747-10756.	1.8	99
28	Structure and properties of strain-induced crystallization rubber-clay nanocomposites by co-coagulating the rubber latex and clay aqueous suspension. Journal of Applied Polymer Science, 2005, 96, 318-323.	1.3	98
29	Enhanced dielectric properties and actuated strain of elastomer composites with dopamine-induced surface functionalization. Journal of Materials Chemistry A, 2013, 1, 12276.	5.2	98
30	Fabrication of silver-coated silica microspheres through mussel-inspired surface functionalization. Journal of Colloid and Interface Science, 2011, 358, 567-574.	5.0	96
31	Wearable, Antifreezing, and Healable Epidermal Sensor Assembled from Long-Lasting Moist Conductive Nanocomposite Organohydrogel. ACS Applied Materials & Interfaces, 2019, 11, 41701-41709.	4.0	94
32	Enabling Design of Advanced Elastomer with Bioinspired Metalâ€“Oxygen Coordination. ACS Applied Materials & Interfaces, 2016, 8, 32520-32527.	4.0	87
33	The Interesting Influence of Nanosprings on the Viscoelasticity of Elastomeric Polymer Materials: Simulation and Experiment. Advanced Functional Materials, 2013, 23, 1156-1163.	7.8	85
34	Highly Aging-Resistant Elastomers Doped with Antioxidant-Loaded Clay Nanotubes. ACS Applied Materials & Interfaces, 2015, 7, 8156-8165.	4.0	85
35	Mechanically Robust and Recyclable EPDM Rubber Composites by a Green Cross-Linking Strategy. ACS Sustainable Chemistry and Engineering, 2019, 7, 11712-11720.	3.2	84
36	Mussel Inspired Modification for Aluminum Oxide/Silicone Elastomer Composites with Largely Improved Thermal Conductivity and Low Dielectric Constant. Industrial & Engineering Chemistry Research, 2018, 57, 3255-3262.	1.8	83

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37	New understanding of microstructure formation of the rubber phase in thermoplastic vulcanizates (TPV). Soft Matter, 2014, 10, 1816.	1.2	78
38	A Robust, Selfâ€Healable, and Shape Memory Supramolecular Hydrogel by Multiple Hydrogen Bonding Interactions. Macromolecular Rapid Communications, 2018, 39, e1800138.	2.0	78
39	Advanced flexible rGO-BN natural rubber films with high thermal conductivity for improved thermal management capability. Carbon, 2020, 162, 46-55.	5.4	78
40	Constructing a Multiple Covalent Interface and Isolating a Dispersed Structure in Silica/Rubber Nanocomposites with Excellent Dynamic Performance. ACS Applied Materials & Interfaces, 2018, 10, 19922-19931.	4.0	74
41	Preparation and characterization of polystyrene/Ag coreâ€“shell microspheres â€“ A bio-inspired poly(dopamine) approach. Journal of Colloid and Interface Science, 2012, 368, 241-249.	5.0	73
42	Molecular dynamics simulations of the structural, mechanical and visco-elastic properties of polymer nanocomposites filled with grafted nanoparticles. Physical Chemistry Chemical Physics, 2015, 17, 7196-7207.	1.3	70
43	Preparation and performance of silica/SBR masterbatches with high silica loading by latex compounding method. Composites Part B: Engineering, 2016, 85, 130-139.	5.9	70
44	Rational design of advanced elastomer nanocomposites towards extremely energy-saving tires based on macromolecular assembly strategy. Nano Energy, 2018, 48, 180-188.	8.2	65
45	Enhanced gas barrier properties of graphene oxide/rubber composites with strong interfaces constructed by graphene oxide and sulfur. Chemical Engineering Journal, 2020, 383, 123100.	6.6	65
46	Improved thermal conductivity and electromechanical properties of natural rubber by constructing Al2O3-PDA-Ag hybrid nanoparticles. Composites Science and Technology, 2019, 180, 86-93.	3.8	63
47	Concurrently improved dispersion and interfacial interaction in rubber/nanosilica composites via efficient hydrosilane functionalization. Composites Science and Technology, 2019, 169, 217-223.	3.8	58
48	Design of next-generation cross-linking structure for elastomers toward green process and a real recycling loop. Science Bulletin, 2020, 65, 889-898.	4.3	58
49	Toughening Elastomers Using a Mussel-Inspired Multiphase Design. ACS Applied Materials & Interfaces, 2018, 10, 23485-23489.	4.0	57
50	Mechanical, dielectric and actuated properties of carboxyl grafted silicone elastomer composites containing epoxy-functionalized TiO2 filler. Chemical Engineering Journal, 2020, 393, 124791.	6.6	55
51	Revisiting the Dispersion Mechanism of Grafted Nanoparticles in Polymer Matrix: A Detailed Molecular Dynamics Simulation. Langmuir, 2011, 27, 15213-15222.	1.6	54
52	Numerical simulation and experimental verification of heat build-up for rubber compounds. Polymer, 2016, 101, 199-207.	1.8	54
53	Optimizing energy harvesting performance of cone dielectric elastomer generator based on VHB elastomer. Nano Energy, 2020, 71, 104606.	8.2	54
54	Performance enhancement of rubber composites using VOC-Free interfacial silica coupling agent. Composites Part B: Engineering, 2020, 202, 108301.	5.9	53

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55	Triboelectric Nanogenerator Boosts Smart Green Tires. Advanced Functional Materials, 2019, 29, 1806331.	7.8	52
56	Morphology and performance of NR/NBR/ENR ternary rubber composites. Composites Part B: Engineering, 2016, 107, 106-112.	5.9	50
57	Chemical Bond Scission and Physical Slippage in the Mullins Effect and Fatigue Behavior of Elastomers. Macromolecules, 2019, 52, 4209-4221.	2.2	50
58	Constructing Covalent Interface in Rubber/Clay Nanocomposite by Combining Structural Modification and Interlamellar Silylation of Montmorillonite. ACS Applied Materials & Interfaces, 2014, 6, 18769-18779.	4.0	49
59	Continuous production of liquid reclaimed rubber from ground tire rubber and its application as reactive polymeric plasticizer. Polymer Degradation and Stability, 2014, 99, 166-175.	2.7	48
60	Enhanced electrical and mechanical properties of rubber/graphene film through layer-by-layer electrostatic assembly. Composites Part B: Engineering, 2016, 90, 457-464.	5.9	48
61	Bio-based thermoplastic polyurethane derived from polylactic acid with high-damping performance. Industrial Crops and Products, 2020, 154, 112619.	2.5	47
62	Enhancing the Performance of Rubber with Nano ZnO as Activators. ACS Applied Materials & Interfaces, 2020, 12, 48007-48015.	4.0	45
63	Constructing Sacrificial Multiple Networks To Toughen Elastomer. Macromolecules, 2019, 52, 4154-4168.	2.2	43
64	Uniaxial Stretching-Induced Alignment of Carbon Nanotubes in Cross-Linked Elastomer Enabled by Dynamic Cross-Link Reshuffling. ACS Macro Letters, 2019, 8, 1575-1581.	2.3	43
65	A scalable strategy for constructing three-dimensional segregated graphene network in polymer via hydrothermal self-assembly. Chemical Engineering Journal, 2019, 363, 300-308.	6.6	42
66	Stronger and Faster Degradable Biobased Poly(propylene sebacate) as Shape Memory Polymer by Incorporating Boehmite Nanoplatelets. ACS Applied Materials & Interfaces, 2012, 4, 4006-4014.	4.0	41
67	Novel biobased thermoplastic elastomer consisting of synthetic polyester elastomer and polylactide by in situ dynamical crosslinking method. RSC Advances, 2015, 5, 23498-23507.	1.7	41
68	A real recycling loop of sulfur-cured rubber through transalkylation exchange of Câ€“S bonds. Green Chemistry, 2018, 20, 5454-5458.	4.6	40
69	Current trends in bioâ€based elastomer materials. SusMat, 2022, 2, 2-33.	7.8	40
70	Dynamic mechanical properties of Eucommia ulmoides gum with different degree of cross-linking. Polymer Bulletin, 2012, 68, 2021-2032.	1.7	39
71	Separated-structured all-organic dielectric elastomer with large actuation strain under ultra-low voltage and high mechanical strength. Journal of Materials Chemistry A, 2015, 3, 1483-1491.	5.2	39
72	Novel Slide-Ring Material/Natural Rubber Composites with High Damping Property. Scientific Reports, 2016, 6, 22810.	1.6	39

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73	A Combined Experimental and Molecular Simulation Study of Factors Influencing the Selection of Antioxidants in Butadiene Rubber. Journal of Physical Chemistry B, 2017, 121, 1413-1425.	1.2	39
74	Fabricated Biobased Eucommia Ulmoides Gum/Polyolefin Elastomer Thermoplastic Vulcanizates into a Shape Memory Material. Industrial & Engineering Chemistry Research, 2019, 58, 6375-6384.	1.8	39
75	Elucidating and tuning the strain-induced non-linear behavior of polymer nanocomposites: a detailed molecular dynamics simulation study. Soft Matter, 2014, 10, 5099-5113.	1.2	37
76	Starch: An Undisputed Potential Candidate and Sustainable Resource for the Development of Wood Adhesive. Starch/Staerke, 2020, 72, 1900276.	1.1	36
77	Revealing the toughening mechanism of grapheneâ€“polymer nanocomposite through molecular dynamics simulation. Nanotechnology, 2015, 26, 291003.	1.3	35
78	Highly Stretchable Conductor by Self-Assembling and Mechanical Sintering of a 2D Liquid Metal on a 3D Polydopamine-Modified Polyurethane Sponge. ACS Applied Materials & Interfaces, 2019, 11, 48321-48330.	4.0	35
79	New designed coupling agents for silica used in green tires with low VOCs and low rolling resistance. Applied Surface Science, 2021, 558, 149819.	3.1	35
80	Dopamine-Induced Surface Functionalization for the Preparation of Alâ€“Ag Bimetallic Microspheres. Journal of the Electrochemical Society, 2011, 158, D228.	1.3	34
81	Plasticization Effect of Bio-Based Plasticizers from Soybean Oil for Tire Tread Rubber. Polymers, 2020, 12, 623.	2.0	34
82	Mechanical and Viscoelastic Properties of Polymer-Grafted Nanorod Composites from Molecular Dynamics Simulation. Macromolecules, 2018, 51, 2641-2652.	2.2	33
83	COMPUTATIONAL SIMULATION OF ELASTOMER NANOCOMPOSITES: CURRENT PROGRESS AND FUTURE CHALLENGES. Rubber Chemistry and Technology, 2012, 85, 450-481.	0.6	32
84	Controllable dielectric and electrical performance of polymer composites with novel core/shell-structured conductive particles through biomimetic method. Electrochimica Acta, 2013, 87, 9-17.	2.6	32
85	Enhancement of Dielectric Performance of Polymer Composites via Constructing BaTiO₃â€“Poly(dopamine)â€“Ag Nanoparticles through Mussel-Inspired Surface Functionalization. ACS Omega, 2018, 3, 14087-14096.	1.6	31
86	A silicone elastomer with optimized and tunable mechanical strength and self-healing ability based on strong and weak coordination bonds. Polymer Chemistry, 2020, 11, 4047-4057.	1.9	31
87	Multidirectional Triple-Shape-Memory Polymer by Tunable Cross-linking and Crystallization. ACS Applied Materials & Interfaces, 2020, 12, 6426-6435.	4.0	31
88	Design and synthesis of phenyl silicone rubber with functional epoxy groups through anionic copolymerization and subsequent epoxidation. Polymer, 2020, 186, 122077.	1.8	30
89	Design and synthesis of non-crystallizable, low-T_g polysiloxane elastomers with functional epoxy groups through anionic copolymerization and subsequent epoxidation. RSC Advances, 2014, 4, 31249-31260.	1.7	29
90	Nanomechanical Mapping of a Deformed Elastomer: Visualizing a Self-Reinforcement Mechanism. ACS Macro Letters, 2016, 5, 839-843.	2.3	29

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91	Computational Study of Nanoparticle Dispersion and Spatial Distribution in Polymer Matrix under Oscillatory Shear Flow. Langmuir, 2013, 29, 13932-13942.	1.6	28
92	Detailed simulation of the role of functionalized polymer chains on the structural, dynamic and mechanical properties of polymer nanocomposites. Soft Matter, 2014, 10, 8971-8984.	1.2	28
93	Designing polymer nanocomposites with a semi-interpenetrating or interpenetrating network structure: toward enhanced mechanical properties. Physical Chemistry Chemical Physics, 2017, 19, 15808-15820.	1.3	27
94	Surface Modification of As-Prepared Silver-Coated Silica Microspheres through Mussel-Inspired Functionalization and Its Application Properties in Silicone Rubber. Industrial & Engineering Chemistry Research, 2018, 57, 7486-7494.	1.8	27
95	Tailoring the thermal conductivity of Poly(dimethylsiloxane)/Hexagonal boron nitride composite. Polymer, 2019, 177, 262-273.	1.8	27
96	Structureâ€“Mechanics Relation of Natural Rubber: Insights from Molecular Dynamics Simulations. ACS Applied Polymer Materials, 2022, 4, 3575-3586.	2.0	27
97	One-step fabrication of RGO/HNBR composites via selective hydrogenation of NBR with graphene-based catalyst. RSC Advances, 2015, 5, 41098-41102.	1.7	26
98	Designing the Slide-Ring Polymer Network with both Good Mechanical and Damping Properties via Molecular Dynamics Simulation. Polymers, 2018, 10, 964.	2.0	26
99	Synthesis of bio-based copolyester and its reinforcement with zinc diacrylate for shape memory application. Polymer, 2014, 55, 4324-4331.	1.8	25
100	Pendant Chain Effect on the Synthesis, Characterization, and Structureâ€“Property Relations of Poly(di-n-alkyl itaconate-co-isoprene) Biobased Elastomers. ACS Sustainable Chemistry and Engineering, 2017, 5, 5214-5223.	3.2	25
101	Highly stretchable liquid metal/polyurethane sponge conductors with excellent electrical conductivity stability and good mechanical properties. Composites Part B: Engineering, 2019, 179, 107492.	5.9	25
102	Designing novel epoxy-terminated polybutadiene to construct chemical interface between nanosilica and rubbers with green nature. Composites Part B: Engineering, 2019, 178, 107451.	5.9	24
103	Molecular Dynamics Simulations of Self-Healing Topological Copolymers with a Comblike Structure. Macromolecules, 2021, 54, 1095-1105.	2.2	24
104	Rubber-reinforced rubbers toward the combination of high reinforcement and low energy loss. Nano Energy, 2021, 83, 105822.	8.2	24
105	Molecular Dynamics Simulation of the Structural, Mechanical, and Reprocessing Properties of Vitrimers Based on a Dynamic Covalent Polymer Network. Macromolecules, 2022, 55, 1091-1103.	2.2	24
106	Effects of pressure on structure and dynamics of model elastomers: A molecular dynamics study. Journal of Chemical Physics, 2008, 129, 154905.	1.2	23
107	Environmentally Friendly Method To Prepare Thermo-Reversible, Self-Healable Biobased Elastomers by One-Step Melt Processing. ACS Applied Polymer Materials, 2019, 1, 169-177.	2.0	23
108	Natural rubber/nitrile butadiene rubber/hindered phenol composites with high-damping properties. International Journal of Smart and Nano Materials, 2015, 6, 239-250.	2.0	22

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109	Tailoring the mechanical properties by molecular integration of flexible and stiff polymer networks. Soft Matter, 2018, 14, 2379-2390.	1.2	22
110	Selfâ€Assembly Strategy for Double Network Elastomer Nanocomposites with Ultralow Energy Consumption and Ultrahigh Wear Resistance. Advanced Functional Materials, 2020, 30, 2003429.	7.8	22
111	Enhanced thermal conductivity of silicone rubber via synergistic effects of polydopamine modification and silver deposition on boron nitride. Composites Communications, 2022, 30, 101082.	3.3	22
112	Extrudable Vitrimeric Rubbers Enabled via Heterogeneous Network Design. Macromolecules, 2022, 55, 3236-3248.	2.2	22
113	Bromination Modification of Butyl Rubber and Its Structure, Properties, and Application. Industrial & Engineering Chemistry Research, 2019, 58, 16645-16653.	1.8	21
114	Selectively localized nanosilica particles at the phase interface of PS/PA6/nanosilica composites with co-continuous structure via reactive extrusion. Composites Science and Technology, 2019, 172, 125-133.	3.8	21
115	Preparation of porous antibacterial polyamide 6 (PA6) membrane with zinc oxide (ZnO) nanoparticles selectively localized at the pore walls via reactive extrusion. Science of the Total Environment, 2020, 715, 137018.	3.9	21
116	Plasticization effect of transgenic soybean oil. I. on ethylene propylene diene monomer (EPDM), as substitute for paraffin oil. Journal of Applied Polymer Science, 2013, 130, n/a-n/a.	1.3	20
117	Antifouling Thermoplastic Composites with Maleimide Encapsulated in Clay Nanotubes. ACS Applied Materials & Interfaces, 2017, 9, 30083-30091.	4.0	20
118	Theoretical Model of Timeâ€“Temperature Superposition Principle of the Selfâ€Healing Kinetics of Supramolecular Polymer Nanocomposites. Macromolecular Rapid Communications, 2018, 39, e1800382.	2.0	20
119	Facile Strategy for the Biomimetic Heterogeneous Design of Elastomers with Mechanical Robustness, Malleability, and Functionality. ACS Macro Letters, 2020, 9, 49-55.	2.3	20
120	Tailoring the dispersion of nanoparticles and the mechanical behavior of polymer nanocomposites by designing the chain architecture. Physical Chemistry Chemical Physics, 2017, 19, 32024-32037.	1.3	19
121	Highly toughened polylactide by renewable Eucommia ulmoides gum. Journal of Applied Polymer Science, 2018, 135, 46017.	1.3	19
122	Molecular dynamics simulation of the rupture mechanism in nanorod filled polymer nanocomposites. Physical Chemistry Chemical Physics, 2014, 16, 18483.	1.3	18
123	Tuning the visco-elasticity of elastomeric polymer materials via flexible nanoparticles: insights from molecular dynamics simulation. RSC Advances, 2016, 6, 28666-28678.	1.7	18
124	Significantly Improving Strength and Damping Performance of Nitrile Rubber via Incorporating Sliding Graft Copolymer. Industrial & Engineering Chemistry Research, 2018, 57, 16692-16700.	1.8	18
125	Application of Displacement-Current-Governed Triboelectric Nanogenerator in an Electrostatic Discharge Protection System for the Next-Generation Green Tire. ACS Nano, 2019, 13, 8202-8212.	7.3	18
126	Mussel-Inspired Highly Stretchable, Tough Nanocomposite Hydrogel with Self-Healable and Near-Infrared Actuated Performance. Industrial & Engineering Chemistry Research, 2020, 59, 166-174.	1.8	18

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127	Design of Epoxy-Functionalized Styrene-Butadiene Rubber with Bio-Based Dicarboxylic Acid as a Cross-Linker toward the Green-Curing Process and Recyclability. Industrial & Engineering Chemistry Research, 2020, 59, 10447-10456.	1.8	18
128	In-chain functionalized polymer induced assembly of nanoparticles: toward materials with tailored properties. Soft Matter, 2016, 12, 1964-1968.	1.2	17
129	Dispersion and shear-induced orientation of anisotropic nanoparticle filled polymer nanocomposites: insights from molecular dynamics simulation. Nanotechnology, 2016, 27, 265704.	1.3	16
130	Stressâ€“strain behavior of block-copolymers and their nanocomposites filled with uniform or Janus nanoparticles under shear: a molecular dynamics simulation. Physical Chemistry Chemical Physics, 2016, 18, 27232-27244.	1.3	16
131	Self-Assembly of Block Copolymer Chains To Promote the Dispersion of Nanoparticles in Polymer Nanocomposites. Journal of Physical Chemistry B, 2017, 121, 9311-9318.	1.2	16
132	Controllable Synthesis and Characterization of Soybean-Oil-Based Hyperbranched Polymers via One-Pot Method. ACS Sustainable Chemistry and Engineering, 2018, 6, 12865-12871.	3.2	16
133	Tailoring the mechanical properties of polymer nanocomposites via interfacial engineering. Physical Chemistry Chemical Physics, 2019, 21, 18714-18726.	1.3	16
134	Designing Superlattice Structure via Self-Assembly of One-Component Polymer-Grafted Nanoparticles. Journal of Physical Chemistry B, 2019, 123, 2157-2168.	1.2	16
135	Mechanical and Self-Healing Behavior of Matrix-Free Polymer Nanocomposites Constructed via Grafted Graphene Nanosheets. Langmuir, 2020, 36, 7427-7438.	1.6	16
136	Tailoring the Static and Dynamic Mechanical Properties of Tri-Block Copolymers through Molecular Dynamics Simulation. Polymers, 2016, 8, 335.	2.0	15
137	Enhanced Actuation Strains of Rubber Composites by Combined Covalent and Noncovalent Modification of TiO₂ Nanoparticles. Industrial & Engineering Chemistry Research, 2019, 58, 19890-19898.	1.8	15
138	Enhanced Electromechanical Performance of Natural Rubber Composites via Constructing Strawberry-like Dielectric Nanoparticles. ACS Applied Polymer Materials, 2020, 2, 5621-5629.	2.0	15
139	A high toughness elastomer based on natural <scp>Eucommia ulmoides</scp> gum. Journal of Applied Polymer Science, 2021, 138, 50007.	1.3	14
140	Tuning the Mechanical Properties of Polymer Nanocomposites Filled with Grafted Nanoparticles by Varying the Grafted Chain Length and Flexibility. Polymers, 2016, 8, 270.	2.0	13
141	Recyclable, self-healable and reshape vitrified poly-dimethylsiloxane composite filled with renewable cellulose nanocrystal. Polymer, 2022, 245, 124648.	1.8	13
142	Bio-based polyurethane/hindered phenol AO-80 composites for room temperature high damping properties. Composites Part B: Engineering, 2022, 243, 110118.	5.9	13
143	Self-assembly and structural manipulation of diblock-copolymer grafted nanoparticles in a homopolymer matrix. Physical Chemistry Chemical Physics, 2019, 21, 11785-11796.	1.3	12
144	Biobased and Recyclable Polyurethane for Room-Temperature Damping and Three-Dimensional Printing. ACS Omega, 2021, 6, 30003-30011.	1.6	12

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145	Molecular Dynamics Simulation Study of Polymer Nanocomposites with Controllable Dispersion of Spherical Nanoparticles. Journal of Physical Chemistry B, 2017, 121, 10146-10156.	1.2	11
146	Quantifying the 3D multiscale dispersion structure of nanofillers in polymer nanocomposites by combining 3D-STEM and Synchrotron Radiation X-ray CT. Composites Part B: Engineering, 2021, 212, 108687.	5.9	11
147	Bioâ€Based, Selfâ€CrosslinkableEucommia ulmoidesGum/Silica Hybrids with Body Temperature Triggering Shape Memory Capability. Macromolecular Materials and Engineering, 2021, 306, 2100370.	1.7	11
148	Combined effect of volume fractions of nanofillers and filler-polymer interactions on 3D multiscale dispersion of nanofiller and Payne effect. Composites Part A: Applied Science and Manufacturing, 2022, 152, 106722.	3.8	11
149	Itaconate Based Elastomer as a Green Alternative to Styreneâ€“Butadiene Rubber for Engineering Applications: Performance Comparison. Processes, 2020, 8, 1527.	1.3	10
150	Conductivity stability and its relationship with the filler network structure of elastomer composites with combined fibrous/layered nickel-coated fillers. RSC Advances, 2014, 4, 32482-32489.	1.7	9
151	In Situ Exfoliation of Graphite into Graphene Nanosheets in Elastomer Composites Based on Dielsâ€“Alder Reaction during Melt Blending. Industrial & Engineering Chemistry Research, 2019, 58, 13182-13189.	1.8	9
152	Thermal Reprocessing and Closedâ€Loop Chemical Recycling of Styreneâ€Butadiene Rubber Enabled by Exchangeable and Cleavable Acetal Linkages. Macromolecular Rapid Communications, 2022, 43, e2100887.	2.0	9
153	Comfort fitting shape memory elastomer with constructed strong interface based on amphiphilic hybrid Janus particles. Composites Part B: Engineering, 2022, 236, 109828.	5.9	9
154	Design and fabrication of recyclable and reshape vitrified elastomer reinforced with renewable cellulose nanocrystal. Composites Communications, 2022, 32, 101165.	3.3	9
155	Integrating Inflammation-Responsive Prodrug with Electrospun Nanofibers for Anti-Inflammation Application. Pharmaceutics, 2022, 14, 1273.	2.0	9
156	Design, Preparation, and Evaluation of a Novel Elastomer with Bio-Based Diethyl Itaconate Aiming at High-Temperature Oil Resistance. Polymers, 2019, 11, 1897.	2.0	8
157	Catalyst-free curing and closed-loop recycling of carboxylated functionalized rubber by a green crosslinking strategy. Polymer, 2021, 234, 124237.	1.8	8
158	Controllable Design and Preparation of Hydroxylâ€Terminated Solutionâ€Polymerized Styrene Butadiene for Polyurethane Elastomers with Highâ€Damping Properties. Macromolecular Rapid Communications, 2022, 43, e2100692.	2.0	8
159	Creation of Tortuosity in Unfilled Rubber via Heterogeneous Cross-Linking toward Improved Barrier Property. Macromolecules, 2021, 54, 11522-11532.	2.2	8
160	Rheological and structural properties of associated polymer networks studied via non-equilibrium molecular dynamics simulation. Molecular Systems Design and Engineering, 2021, 6, 461-475.	1.7	7
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