Weiwei Lei

List of Publications by Year
in descending order

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Version: 2024-02-01

179 papers	9,906 citations	34105 52 h-index	42399 92 g-index
179 all docs	179 docs citations	179 times ranked	8863 citing authors

#	Article	IF	Citations
1	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.	7.6	11
2	Recyclable silicone elastic light-triggered actuator with a reconfigurable Janus structure and self-healable performance. Polymer Chemistry, 2022, 13, 829-837.	3.9	7
3	Designing high performance polymer nanocomposites by incorporating robustness-controlled polymeric nanoparticles: insights from molecular dynamics. Physical Chemistry Chemical Physics, 2022, 24, 2813-2825.	2.8	4
4	Controllable Design and Preparation of Hydroxylâ€Terminated Solutionâ€Polymerized Styrene Butadiene for Polyurethane Elastomers with Highâ€Damping Properties. Macromolecular Rapid Communications, 2022, 43, e2100692.	3.9	8
5	Enhanced thermal conductivity of silicone rubber via synergistic effects of polydopamine modification and silver deposition on boron nitride. Composites Communications, 2022, 30, 101082.	6.3	22
6	Molecular Dynamics Simulation of the Structural, Mechanical, and Reprocessing Properties of Vitrimers Based on a Dynamic Covalent Polymer Network. Macromolecules, 2022, 55, 1091-1103.	4.8	24
7	Current trends in bioâ€based elastomer materials. SusMat, 2022, 2, 2-33.	14.9	40
8	Thermal Reprocessing and Closedâ€Loop Chemical Recycling of Styreneâ€Butadiene Rubber Enabled by Exchangeable and Cleavable Acetal Linkages. Macromolecular Rapid Communications, 2022, 43, e2100887.	3.9	9
9	Recyclable, self-healable and reshape vitrified poly-dimethylsiloxane composite filled with renewable cellulose nanocrystal. Polymer, 2022, 245, 124648.	3.8	13
10	Extrudable Vitrimeric Rubbers Enabled via Heterogeneous Network Design. Macromolecules, 2022, 55, 3236-3248.	4.8	22
11	Comfort fitting shape memory elastomer with constructed strong interface based on amphiphilic hybrid Janus particles. Composites Part B: Engineering, 2022, 236, 109828.	12.0	9
12	Structureâ€“Mechanics Relation of Natural Rubber: Insights from Molecular Dynamics Simulations. ACS Applied Polymer Materials, 2022, 4, 3575-3586.	4.4	27
13	Designing the cross-linked network to tailor the mechanical fracture of elastomeric polymer materials. Polymer, 2022, , 124931.	3.8	2
14	Design and fabrication of recyclable and reshape vitrified elastomer reinforced with renewable cellulose nanocrystal. Composites Communications, 2022, 32, 101165.	6.3	9
15	Preparation of Porous Yolkâ€“Shell S@Poly(vinyl alcohol) (PVA) Particles for a Lithiumâ€“Sulfur Battery Cathode with High Cycling and Rate Performances via a Self-Emulsification Process. ACS Applied Energy Materials, 2022, 5, 7432-7442.	5.1	2
16	Integrating Inflammation-Responsive Prodrug with Electrospun Nanofibers for Anti-Inflammation Application. Pharmaceutics, 2022, 14, 1273.	4.5	9
17	Bio-based polyurethane/hindered phenol AO-80 composites for room temperature high damping properties. Composites Part B: Engineering, 2022, 243, 110118.	12.0	13
18	A high toughness elastomer based on natural <scp>Eucommia ulmoides</scp> gum. Journal of Applied Polymer Science, 2021, 138, 50007.	2.6	14

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19	Rheological and structural properties of associated polymer networks studied via non-equilibrium molecular dynamics simulation. Molecular Systems Design and Engineering, 2021, 6, 461-475.	3.4	7
20	Molecular Dynamics Simulations of Self-Healing Topological Copolymers with a Comblike Structure. Macromolecules, 2021, 54, 1095-1105.	4.8	24
21	Bimodal Polymer End-Linked Nanoparticle Network Design Strategy to Manipulate the Structureâ€“Mechanics Relation. Journal of Physical Chemistry B, 2021, 125, 1680-1691.	2.6	6
22	Rubber-reinforced rubbers toward the combination of high reinforcement and low energy loss. Nano Energy, 2021, 83, 105822.	16.0	24
23	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.	12.0	11
24	Green processing strategy to fabricate silica-filled biobased elastomers with excellent heat oil resistance. Polymer, 2021, 228, 123910.	3.8	7
25	Creep behavior of polymer nanocomposites: Insights from molecular dynamics simulation. Polymer, 2021, 228, 123895.	3.8	7
26	New designed coupling agents for silica used in green tires with low VOCs and low rolling resistance. Applied Surface Science, 2021, 558, 149819.	6.1	35
27	Bioâ€Based, Selfâ€CrosslinkableEucommia ulmoidesGum/Silica Hybrids with Body Temperature Triggering Shape Memory Capability. Macromolecular Materials and Engineering, 2021, 306, 2100370.	3.6	11
28	Heterogeneous Dynamics of Polymer Melts Exerted by Chain Loops Anchored on the Substrate: Insights from Molecular Dynamics Simulation. Langmuir, 2021, 37, 12290-12303.	3.5	5
29	Catalyst-free curing and closed-loop recycling of carboxylated functionalized rubber by a green crosslinking strategy. Polymer, 2021, 234, 124237.	3.8	8
30	Biobased and Recyclable Polyurethane for Room-Temperature Damping and Three-Dimensional Printing. ACS Omega, 2021, 6, 30003-30011.	3.5	12
31	Green Fabrication of High-Performance, Lignosulfonate-Functionalized, and Reduced-Graphene Oxide Styreneâ€“Butadiene Rubber Composites. Industrial & Engineering Chemistry Research, 2021, 60, 17989-17998.	3.7	5
32	Creation of Tortuosity in Unfilled Rubber via Heterogeneous Cross-Linking toward Improved Barrier Property. Macromolecules, 2021, 54, 11522-11532.	4.8	8
33	Enhanced gas barrier properties of graphene oxide/rubber composites with strong interfaces constructed by graphene oxide and sulfur. Chemical Engineering Journal, 2020, 383, 123100.	12.7	65
34	Starch: An Undisputed Potential Candidate and Sustainable Resource for the Development of Wood Adhesive. Starch/Staerke, 2020, 72, 1900276.	2.1	36
35	Mussel-Inspired Highly Stretchable, Tough Nanocomposite Hydrogel with Self-Healable and Near-Infrared Actuated Performance. Industrial & Engineering Chemistry Research, 2020, 59, 166-174.	3.7	18
36	Facile Strategy for the Biomimetic Heterogeneous Design of Elastomers with Mechanical Robustness, Malleability, and Functionality. ACS Macro Letters, 2020, 9, 49-55.	4.8	20

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37	Unveiling the Mechanism of the Location of the Grafted Nanoparticles in a Lamellar-Forming Block Copolymer. Langmuir, 2020, 36, 194-203.	3.5	5
38	Design and synthesis of phenyl silicone rubber with functional epoxy groups through anionic copolymerization and subsequent epoxidation. Polymer, 2020, 186, 122077.	3.8	30
39	Enhancing the Performance of Rubber with Nano ZnO as Activators. ACS Applied Materials & Interfaces, 2020, 12, 48007-48015.	8.0	45
40	Performance enhancement of rubber composites using VOC-Free interfacial silica coupling agent. Composites Part B: Engineering, 2020, 202, 108301.	12.0	53
41	Enhanced Electromechanical Performance of Natural Rubber Composites via Constructing Strawberry-like Dielectric Nanoparticles. ACS Applied Polymer Materials, 2020, 2, 5621-5629.	4.4	15
42	Mitigating the Shielding Effect of Ether Oxygen in Poly(ethylene glycol) on Boron Atoms in Boronâ€Doped Poly(ethylene glycol) Hybrid Polymer Electrolyte by Introducing Siloxane Spacers. ChemElectroChem, 2020, 7, 3353-3360.	3.4	1
43	Itaconate Based Elastomer as a Green Alternative to Styreneâ€“Butadiene Rubber for Engineering Applications: Performance Comparison. Processes, 2020, 8, 1527.	2.8	10
44	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.	3.7	18
45	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.	3.9	31
46	Mechanical and Self-Healing Behavior of Matrix-Free Polymer Nanocomposites Constructed via Grafted Graphene Nanosheets. Langmuir, 2020, 36, 7427-7438.	3.5	16
47	Bio-based thermoplastic polyurethane derived from polylactic acid with high-damping performance. Industrial Crops and Products, 2020, 154, 112619.	5.2	47
48	Plasticization Effect of Bio-Based Plasticizers from Soybean Oil for Tire Tread Rubber. Polymers, 2020, 12, 623.	4.5	34
49	Design of next-generation cross-linking structure for elastomers toward green process and a real recycling loop. Science Bulletin, 2020, 65, 889-898.	9.0	58
50	Mechanical, dielectric and actuated properties of carboxyl grafted silicone elastomer composites containing epoxy-functionalized TiO2 filler. Chemical Engineering Journal, 2020, 393, 124791.	12.7	55
51	Selfâ€Assembly Strategy for Double Network Elastomer Nanocomposites with Ultralow Energy Consumption and Ultrahigh Wear Resistance. Advanced Functional Materials, 2020, 30, 2003429.	14.9	22
52	Advanced flexible rGO-BN natural rubber films with high thermal conductivity for improved thermal management capability. Carbon, 2020, 162, 46-55.	10.3	78
53	Optimizing energy harvesting performance of cone dielectric elastomer generator based on VHB elastomer. Nano Energy, 2020, 71, 104606.	16.0	54
54	Multidirectional Triple-Shape-Memory Polymer by Tunable Cross-linking and Crystallization. ACS Applied Materials & Interfaces, 2020, 12, 6426-6435.	8.0	31

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55	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.	8.0	21
56	Functional rubberâ€“clay nanotube composites with sustained release of protective agents. , 2020, , 911-941.		2
57	Tailoring the mechanical properties of polymer nanocomposites via interfacial engineering. Physical Chemistry Chemical Physics, 2019, 21, 18714-18726.	2.8	16
58	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.	3.7	9
59	Wearable, Antifreezing, and Healable Epidermal Sensor Assembled from Long-Lasting Moist Conductive Nanocomposite Organohydrogel. ACS Applied Materials & Interfaces, 2019, 11, 41701-41709.	8.0	94
60	Designing novel epoxy-terminated polybutadiene to construct chemical interface between nanosilica and rubbers with green nature. Composites Part B: Engineering, 2019, 178, 107451.	12.0	24
61	Highly stretchable liquid metal/polyurethane sponge conductors with excellent electrical conductivity stability and good mechanical properties. Composites Part B: Engineering, 2019, 179, 107492.	12.0	25
62	Enhanced Actuation Strains of Rubber Composites by Combined Covalent and Noncovalent Modification of TiO₂ Nanoparticles. Industrial & Engineering Chemistry Research, 2019, 58, 19890-19898.	3.7	15
63	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.	3.7	108
64	Bromination Modification of Butyl Rubber and Its Structure, Properties, and Application. Industrial & Engineering Chemistry Research, 2019, 58, 16645-16653.	3.7	21
65	Shear-Induced Microscopic Structure Damage in Polymer Nanocomposites: A Dynamic Density Functional Theoretical Study. Journal of Physical Chemistry C, 2019, 123, 22529-22538.	3.1	4
66	A scalable strategy for constructing three-dimensional segregated graphene network in polymer via hydrothermal self-assembly. Chemical Engineering Journal, 2019, 363, 300-308.	12.7	42
67	Environmentally Friendly Method To Prepare Thermo-Reversible, Self-Healable Biobased Elastomers by One-Step Melt Processing. ACS Applied Polymer Materials, 2019, 1, 169-177.	4.4	23
68	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.	7.8	21
69	Improved thermal conductivity and electromechanical properties of natural rubber by constructing Al2O3-PDA-Ag hybrid nanoparticles. Composites Science and Technology, 2019, 180, 86-93.	7.8	63
70	Chemical Bond Scission and Physical Slippage in the Mullins Effect and Fatigue Behavior of Elastomers. Macromolecules, 2019, 52, 4209-4221.	4.8	50
71	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.	14.6	18
72	Mechanically Robust and Recyclable EPDM Rubber Composites by a Green Cross-Linking Strategy. ACS Sustainable Chemistry and Engineering, 2019, 7, 11712-11720.	6.7	84

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73	Tailoring the thermal conductivity of Poly(dimethylsiloxane)/Hexagonal boron nitride composite. Polymer, 2019, 177, 262-273.	3.8	27
74	Self-assembly and structural manipulation of diblock-copolymer grafted nanoparticles in a homopolymer matrix. Physical Chemistry Chemical Physics, 2019, 21, 11785-11796.	2.8	12
75	Constructing Sacrificial Multiple Networks To Toughen Elastomer. Macromolecules, 2019, 52, 4154-4168.	4.8	43
76	Fabricated Biobased Eucommia Ulmoides Gum/Polyolefin Elastomer Thermoplastic Vulcanizates into a Shape Memory Material. Industrial & Engineering Chemistry Research, 2019, 58, 6375-6384.	3.7	39
77	Designing Superlattice Structure via Self-Assembly of One-Component Polymer-Grafted Nanoparticles. Journal of Physical Chemistry B, 2019, 123, 2157-2168.	2.6	16
78	Design, Preparation, and Evaluation of a Novel Elastomer with Bio-Based Diethyl Itaconate Aiming at High-Temperature Oil Resistance. Polymers, 2019, 11, 1897.	4.5	8
79	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.	8.0	35
80	Polyvinyl Alcohol-Stabilized Liquid Metal Hydrogel for Wearable Transient Epidermal Sensors. ACS Applied Materials & Interfaces, 2019, 11, 47358-47364.	8.0	148
81	Uniaxial Stretching-Induced Alignment of Carbon Nanotubes in Cross-Linked Elastomer Enabled by Dynamic Cross-Link Reshuffling. ACS Macro Letters, 2019, 8, 1575-1581.	4.8	43
82	Phase manipulation of topologically engineered AB-type multi-block copolymers. RSC Advances, 2019, 9, 42029-42042.	3.6	0
83	Photothermal-Induced Self-Healable and Reconfigurable Shape Memory Bio-Based Elastomer with Recyclable Ability. ACS Applied Materials & Interfaces, 2019, 11, 1469-1479.	8.0	142
84	Concurrently improved dispersion and interfacial interaction in rubber/nanosilica composites via efficient hydrosilane functionalization. Composites Science and Technology, 2019, 169, 217-223.	7.8	58
85	Triboelectric Nanogenerator Boosts Smart Green Tires. Advanced Functional Materials, 2019, 29, 1806331.	14.9	52
86	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.	3.7	83
87	Tailoring the mechanical properties by molecular integration of flexible and stiff polymer networks. Soft Matter, 2018, 14, 2379-2390.	2.7	22
88	Thermodynamic and dynamical heterogeneities during glass transition of water. Journal of Molecular Liquids, 2018, 253, 91-95.	4.9	2
89	A Robust, Selfâ€Healable, and Shape Memory Supramolecular Hydrogel by Multiple Hydrogen Bonding Interactions. Macromolecular Rapid Communications, 2018, 39, e1800138.	3.9	78
90	Mechanical and Viscoelastic Properties of Polymer-Grafted Nanorod Composites from Molecular Dynamics Simulation. Macromolecules, 2018, 51, 2641-2652.	4.8	33

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91	Rational design of advanced elastomer nanocomposites towards extremely energy-saving tires based on macromolecular assembly strategy. Nano Energy, 2018, 48, 180-188.	16.0	65
92	Highly toughened polylactide by renewable Eucommia ulmoides gum. Journal of Applied Polymer Science, 2018, 135, 46017.	2.6	19
93	Preparation, microstructure, and microstructure-properties relationship of thermoplastic vulcanizates (TPVs): A review. Progress in Polymer Science, 2018, 79, 61-97.	24.7	158
94	A real recycling loop of sulfur-cured rubber through transalkylation exchange of Câ€“S bonds. Green Chemistry, 2018, 20, 5454-5458.	9.0	40
95	Significantly Improving Strength and Damping Performance of Nitrile Rubber via Incorporating Sliding Graft Copolymer. Industrial & Engineering Chemistry Research, 2018, 57, 16692-16700.	3.7	18
96	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.	3.5	31
97	Controllable Synthesis and Characterization of Soybean-Oil-Based Hyperbranched Polymers via One-Pot Method. ACS Sustainable Chemistry and Engineering, 2018, 6, 12865-12871.	6.7	16
98	Designing the Slide-Ring Polymer Network with both Good Mechanical and Damping Properties via Molecular Dynamics Simulation. Polymers, 2018, 10, 964.	4.5	26
99	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.	3.7	27
100	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.	8.0	74
101	Theoretical Model of Timeâ€“Temperature Superposition Principle of the Selfâ€Healing Kinetics of Supramolecular Polymer Nanocomposites. Macromolecular Rapid Communications, 2018, 39, e1800382.	3.9	20
102	Toughening Elastomers Using a Mussel-Inspired Multiphase Design. ACS Applied Materials & Interfaces, 2018, 10, 23485-23489.	8.0	57
103	Tuning the structure and mechanical properties of double-network elastomer: Molecular dynamics simulation. Chinese Science Bulletin, 2018, 63, 3631-3641.	0.7	3
104	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.	2.6	39
105	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.	6.7	25
106	Designing polymer nanocomposites with a semi-interpenetrating or interpenetrating network structure: toward enhanced mechanical properties. Physical Chemistry Chemical Physics, 2017, 19, 15808-15820.	2.8	27
107	Molecular Dynamics Simulation Study of Polymer Nanocomposites with Controllable Dispersion of Spherical Nanoparticles. Journal of Physical Chemistry B, 2017, 121, 10146-10156.	2.6	11
108	Malleable, Mechanically Strong, and Adaptive Elastomers Enabled by Interfacial Exchangeable Bonds. Macromolecules, 2017, 50, 7584-7592.	4.8	160

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109	Progress in bio-inspired sacrificial bonds in artificial polymeric materials. Chemical Society Reviews, 2017, 46, 6301-6329.	38.1	157
110	Theoretical and Experimental Insights into the Phase Transition of Rubber/Plastic Blends during Dynamic Vulcanization. Industrial & Engineering Chemistry Research, 2017, 56, 13911-13918.	3.7	5
111	Self-Assembly of Block Copolymer Chains To Promote the Dispersion of Nanoparticles in Polymer Nanocomposites. Journal of Physical Chemistry B, 2017, 121, 9311-9318.	2.6	16
112	Antifouling Thermoplastic Composites with Maleimide Encapsulated in Clay Nanotubes. ACS Applied Materials & Interfaces, 2017, 9, 30083-30091.	8.0	20
113	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.	10.3	128
114	Wearable, Healable, and Adhesive Epidermal Sensors Assembled from Musselâ€Inspired Conductive Hybrid Hydrogel Framework. Advanced Functional Materials, 2017, 27, 1703852.	14.9	617
115	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.	2.8	19
116	Tuning the Mechanical Properties of Polymer Nanocomposites Filled with Grafted Nanoparticles by Varying the Grafted Chain Length and Flexibility. Polymers, 2016, 8, 270.	4.5	13
117	Tailoring the Static and Dynamic Mechanical Properties of Tri-Block Copolymers through Molecular Dynamics Simulation. Polymers, 2016, 8, 335.	4.5	15
118	Dispersion and shear-induced orientation of anisotropic nanoparticle filled polymer nanocomposites: insights from molecular dynamics simulation. Nanotechnology, 2016, 27, 265704.	2.6	16
119	Tuning the visco-elasticity of elastomeric polymer materials via flexible nanoparticles: insights from molecular dynamics simulation. RSC Advances, 2016, 6, 28666-28678.	3.6	18
120	Morphology and performance of NR/NBR/ENR ternary rubber composites. Composites Part B: Engineering, 2016, 107, 106-112.	12.0	50
121	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.	2.8	16
122	Highly Sensitive, Wearable, Durable Strain Sensors and Stretchable Conductors Using Graphene/Silicon Rubber Composites. Advanced Functional Materials, 2016, 26, 7614-7625.	14.9	339
123	Numerical simulation and experimental verification of heat build-up for rubber compounds. Polymer, 2016, 101, 199-207.	3.8	54
124	Novel Slide-Ring Material/Natural Rubber Composites with High Damping Property. Scientific Reports, 2016, 6, 22810.	3.3	39
125	Enabling Design of Advanced Elastomer with Bioinspired Metalâ€“Oxygen Coordination. ACS Applied Materials & Interfaces, 2016, 8, 32520-32527.	8.0	87
126	One-Piece Triboelectric Nanosensor for Self-Triggered Alarm System and Latent Fingerprint Detection. ACS Nano, 2016, 10, 10366-10372.	14.6	108

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127	Transport performance in novel elastomer nanocomposites: Mechanism, design and control. Progress in Polymer Science, 2016, 61, 29-66.	24.7	128
128	Nanomechanical Mapping of a Deformed Elastomer: Visualizing a Self-Reinforcement Mechanism. ACS Macro Letters, 2016, 5, 839-843.	4.8	29
129	Bioinspired Engineering of Sacrificial Metalâ€“Ligand Bonds into Elastomers with Supramechanical Performance and Adaptive Recovery. Macromolecules, 2016, 49, 1781-1789.	4.8	238
130	In-chain functionalized polymer induced assembly of nanoparticles: toward materials with tailored properties. Soft Matter, 2016, 12, 1964-1968.	2.7	17
131	Enhanced electrical and mechanical properties of rubber/graphene film through layer-by-layer electrostatic assembly. Composites Part B: Engineering, 2016, 90, 457-464.	12.0	48
132	Preparation and performance of silica/SBR masterbatches with high silica loading by latex compounding method. Composites Part B: Engineering, 2016, 85, 130-139.	12.0	70
133	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.	2.8	70
134	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.	10.3	39
135	Tailoring Dielectric and Actuated Properties of Elastomer Composites by Bioinspired Poly(dopamine) Encapsulated Graphene Oxide. ACS Applied Materials & Interfaces, 2015, 7, 10755-10762.	8.0	105
136	Natural rubber/nitrile butadiene rubber/hindered phenol composites with high-damping properties. International Journal of Smart and Nano Materials, 2015, 6, 239-250.	4.2	22
137	Electrospun Microfiber Membranes Embedded with Drug-Loaded Clay Nanotubes for Sustained Antimicrobial Protection. ACS Nano, 2015, 9, 1600-1612.	14.6	271
138	Novel biobased thermoplastic elastomer consisting of synthetic polyester elastomer and polylactide by in situ dynamical crosslinking method. RSC Advances, 2015, 5, 23498-23507.	3.6	41
139	Revealing the toughening mechanism of grapheneâ€“polymer nanocomposite through molecular dynamics simulation. Nanotechnology, 2015, 26, 291003.	2.6	35
140	One-step fabrication of RGO/HNBR composites via selective hydrogenation of NBR with graphene-based catalyst. RSC Advances, 2015, 5, 41098-41102.	3.6	26
141	Highly Aging-Resistant Elastomers Doped with Antioxidant-Loaded Clay Nanotubes. ACS Applied Materials & Interfaces, 2015, 7, 8156-8165.	8.0	85
142	Interface Engineering toward Promoting Silanization by Ionic Liquid for High-Performance Rubber/Silica Composites. Industrial & Engineering Chemistry Research, 2015, 54, 10747-10756.	3.7	99
143	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.	3.6	29
144	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.	7.6	172

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145	New understanding of microstructure formation of the rubber phase in thermoplastic vulcanizates (TPV). Soft Matter, 2014, 10, 1816.	2.7	78
146	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.	7.8	179
147	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.	5.8	48
148	Surface Modification of Aramid Fibers by Bio-Inspired Poly(dopamine) and Epoxy Functionalized Silane Grafting. ACS Applied Materials & Interfaces, 2014, 6, 21730-21738.	8.0	323
149	Constructing Covalent Interface in Rubber/Clay Nanocomposite by Combining Structural Modification and Interlamellar Silylation of Montmorillonite. ACS Applied Materials & Interfaces, 2014, 6, 18769-18779.	8.0	49
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.	3.6	9
151	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.	2.7	28
152	Elucidating and tuning the strain-induced non-linear behavior of polymer nanocomposites: a detailed molecular dynamics simulation study. Soft Matter, 2014, 10, 5099-5113.	2.7	37
153	Molecular dynamics simulation of the rupture mechanism in nanorod filled polymer nanocomposites. Physical Chemistry Chemical Physics, 2014, 16, 18483.	2.8	18
154	Synthesis of bio-based copolyester and its reinforcement with zinc diacrylate for shape memory application. Polymer, 2014, 55, 4324-4331.	3.8	25
155	Computational Study of Nanoparticle Dispersion and Spatial Distribution in Polymer Matrix under Oscillatory Shear Flow. Langmuir, 2013, 29, 13932-13942.	3.5	28
156	Enhanced dielectric properties and actuated strain of elastomer composites with dopamine-induced surface functionalization. Journal of Materials Chemistry A, 2013, 1, 12276.	10.3	98
157	Controllable dielectric and electrical performance of polymer composites with novel core/shell-structured conductive particles through biomimetic method. Electrochimica Acta, 2013, 87, 9-17.	5.2	32
158	Surface Silverized Meta-Aramid Fibers Prepared by Bio-inspired Poly(dopamine) Functionalization. ACS Applied Materials & Interfaces, 2013, 5, 2062-2069.	8.0	172
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