Liqun Zhang

List of Publications by Year
in descending order

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489	25,145	5896	13771
papers	citations	81 h-index	129 g-index

496	496	496	21821
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Halloysite Clay Nanotubes for Loading and Sustained Release of Functional Compounds. Advanced Materials, 2016, 28, 1227-1250.	21.0	779
2	Wearable, Healable, and Adhesive Epidermal Sensors Assembled from Musselâ€Inspired Conductive Hybrid Hydrogel Framework. Advanced Functional Materials, 2017, 27, 1703852.	14.9	617
3	Respiratory Syncytial Virus Infection of Human Airway Epithelial Cells Is Polarized, Specific to Ciliated Cells, and without Obvious Cytopathology. Journal of Virology, 2002, 76, 5654-5666.	3.4	489
4	Silica Modified by Alcohol Polyoxyethylene Ether and Silane Coupling Agent Together to Achieve High Performance Rubber Composites Using the Latex Compounding Method. Polymers, 2018, 10, 1.	4.5	426
5	Highly Sensitive, Wearable, Durable Strain Sensors and Stretchable Conductors Using Graphene/Silicon Rubber Composites. Advanced Functional Materials, 2016, 26, 7614-7625.	14.9	339
6	The effect of citric acid on the structural properties and cytotoxicity of the polyvinyl alcohol/starch films when molding at high temperature. Carbohydrate Polymers, 2008, 74, 763-770.	10.2	314
7	Normal and Cystic Fibrosis Airway Surface Liquid Homeostasis. Journal of Biological Chemistry, 2005, 280, 35751-35759.	3.4	298
8	Nanoparticle Dispersion and Aggregation in Polymer Nanocomposites: Insights from Molecular Dynamics Simulation. Langmuir, 2011, 27, 7926-7933.	3.5	295
9	Characterization of citric acid/glycerol co-plasticized thermoplastic starch prepared by melt blending. Carbohydrate Polymers, 2007, 69, 748-755.	10.2	294
10	Morphology and mechanical properties of clay/styrene-butadiene rubber nanocomposites. Journal of Applied Polymer Science, 2000, 78, 1873-1878.	2.6	286
11	Infection of Ciliated Cells by Human Parainfluenza Virus Type 3 in an In Vitro Model of Human Airway Epithelium. Journal of Virology, 2005, 79, 1113-1124.	3.4	259
12	Large-scale synthesis of N-doped carbon quantum dots and their phosphorescence properties in a polyurethane matrix. Nanoscale, 2016, 8, 4742-4747.	5.6	252
13	A Facile Approach to Chemically Modified Graphene and its Polymer Nanocomposites. Advanced Functional Materials, 2012, 22, 2735-2743.	14.9	244
14	Electrically and thermally conductive elastomer/graphene nanocomposites by solution mixing. Polymer, 2014, 55, 201-210.	3.8	239
15	Bioinspired Engineering of Sacrificial Metalâ€“Ligand Bonds into Elastomers with Supramechanical Performance and Adaptive Recovery. Macromolecules, 2016, 49, 1781-1789.	4.8	238
16	Preparation and characterization of rubber-clay nanocomposites. Journal of Applied Polymer Science, 2000, 78, 1879-1883.	2.6	223
17	Analyzing Properties of Model Asphalts Using Molecular Simulation. Energy & Fuels, 2007, 21, 1712-1716.	5.1	207
18	Novel percolation phenomena and mechanism of strengthening elastomers by nanofillers. Physical Chemistry Chemical Physics, 2010, 12, 3014.	2.8	207

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19	Dramatic influence of compatibility on crystallization behavior and morphology of polypropylene in NBR/PP thermoplastic vulcanizates. Journal of Polymer Research, 2012, 19, 1.	2.4	204
20	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.	3.1	195
21	Grafting of Polyester onto Graphene for Electrically and Thermally Conductive Composites. Macromolecules, 2012, 45, 3444-3451.	4.8	188
22	Synthesis, preparation, in vitro degradation, and application of novel degradable bioelastomersâ€"A review. Progress in Polymer Science, 2012, 37, 715-765.	24.7	181
23	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
24	Surface Silverized Meta-Aramid Fibers Prepared by Bio-inspired Poly(dopamine) Functionalization. ACS Applied Materials & Interfaces, 2013, 5, 2062-2069.	8.0	172
25	Biobased Poly(propylene sebacate) as Shape Memory Polymer with Tunable Switching Temperature for Potential Biomedical Applications. Biomacromolecules, 2011, 12, 1312-1321.	5.4	170
26	Overview of polymer nanocomposites: Computer simulation understanding of physical properties. Polymer, 2017, 133, 272-287.	3.8	170
27	Preparation of butadieneâ€"styreneâ€"vinyl pyridine rubberâ€"graphene oxide hybrids through co-coagulation process and in situ interface tailoring. Journal of Materials Chemistry, 2012, 22, 7492.	6.7	167
28	Surface modification of silica by two-step method and properties of solution styrene butadiene rubber (SSBR) nanocomposites filled with modified silica. Composites Science and Technology, 2013, 88, 69-75.	7.8	164
29	Relaxation time, diffusion, and viscosity analysis of model asphalt systems using molecular simulation. Journal of Chemical Physics, 2007, 127, 194502.	3.0	161
30	Malleable, Mechanically Strong, and Adaptive Elastomers Enabled by Interfacial Exchangeable Bonds. Macromolecules, 2017, 50, 7584-7592.	4.8	160
31	Preparation, microstructure, and microstructure-properties relationship of thermoplastic vulcanizates (TPVs): A review. Progress in Polymer Science, 2018, 79, 61-97.	24.7	158
32	Progress in bio-inspired sacrificial bonds in artificial polymeric materials. Chemical Society Reviews, 2017, 46, 6301-6329.	38.1	157
33	A Flexible Wearable Pressure Sensor with Bioinspired Microcrack and Interlocking for Fullâ€Range Humanâ€"Machine Interfacing. Small, 2018, 14, e1803018.	10.0	156
34	On the global existence of solutions to the Prandtl's system. Advances in Mathematics, 2004, 181, 88-133.	1.1	154
35	Antibacterial surfaces through dopamine functionalization and silver nanoparticle immobilization. Materials Chemistry and Physics, 2010, 121, 534-540.	4.0	150
36	Preparation and characterization of dopamine-decorated hydrophilic carbon black. Applied Surface Science, 2012, 258, 5387-5393.	6.1	145

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37	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
38	High Performance Graphene Oxide Based Rubber Composites. Scientific Reports, 2013, 3, 2508.	3.3	134
39	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
40	Crystallization and morphology study of polyhedral oligomeric silsesquioxane (POSS)/polysiloxane elastomer composites prepared by melt blending. Polymer, 2007, 48, 3201-3212.	3.8	131
41	Study on mechanical properties of elastomers reinforced by zinc dimethacrylate. European Polymer Journal, 2005, 41, 589-598.	5.4	130
42	Molecular Orientation in Model Asphalts Using Molecular Simulation. Energy & Fuels, 2007, 21, 1102-1111.	5.1	129
43	Transport performance in novel elastomer nanocomposites: Mechanism, design and control. Progress in Polymer Science, 2016, 61, 29-66.	24.7	128
44	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
45	A novel approach to electrically and thermally conductive elastomers using graphene. Polymer, 2013, 54, 3663-3670.	3.8	124
46	Melt compounding with graphene to develop functional, high-performance elastomers. Nanotechnology, 2013, 24, 165601.	2.6	124
47	Molecular Engineering of a Two-Step Transcription Amplification (TSTA) System for Transgene Delivery in Prostate Cancer. Molecular Therapy, 2002, 5, 223-232.	8.2	123
48	Synthesis and Characterization of Novel Soybean-Oil-Based Elastomers with Favorable Processability and Tunable Properties. Macromolecules, 2012, 45, 9010-9019.	4.8	123
49	Recent Advances in Synthetic Bioelastomers. International Journal of Molecular Sciences, 2009, 10, 4223-4256.	4.1	118
50	Effect of particle size on the properties of Mg(OH)2-filled rubber composites. Journal of Applied Polymer Science, 2004, 94, 2341-2346.	2.6	114
51	Preparation and properties of natural rubber/rectorite nanocomposites. European Polymer Journal, 2005, 41, 2776-2783.	5.4	112
52	One-Piece Triboelectric Nanosensor for Self-Triggered Alarm System and Latent Fingerprint Detection. ACS Nano, 2016, 10, 10366-10372.	14.6	108
53	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
54	Flexible Breathable Nanomesh Electronic Devices for Onâ€Demand Therapy. Advanced Functional Materials, 2019, 29, 1902127.	14.9	108

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55	Synthesis of amphiphilic carbon quantum dots with phosphorescence properties and their multifunctional applications. Journal of Materials Chemistry C, 2016, 4, 10146-10153.	5.5	107
56	Proton conductivity improvement of sulfonated poly(ether ether ketone) nanocomposite membranes with sulfonated halloysite nanotubes prepared via dopamine-initiated atom transfer radical polymerization. Journal of Membrane Science, 2016, 504, 206-219.	8.2	107
57	Tough Bioâ€Based Elastomer Nanocomposites with High Performance for Engineering Applications. Advanced Engineering Materials, 2012, 14, 112-118.	3.5	106
58	Hydroxide ions transportation in polynorbornene anion exchange membrane. Polymer, 2018, 138, 363-368.	3.8	105
59	Long-acting and broad-spectrum antimicrobial electrospun poly (Îµ-caprolactone)/gelatin micro/nanofibers for wound dressing. Journal of Colloid and Interface Science, 2018, 509, 275-284.	9.4	103
60	Significantly improved rubber-silica interface via subtly controlling surface chemistry of silica. Composites Science and Technology, 2018, 156, 70-77.	7.8	99
61	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.	2.6	98
62	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
63	Macroscopic Supramolecular Assembly of Rigid Building Blocks Through a Flexible Spacing Coating. Advanced Materials, 2014, 26, 3009-3013.	21.0	98
64	Structure and properties of fibrillar silicate/SBR composites by direct blend process. Journal of Materials Science, 2003, 38, 4917-4924.	3.7	96
65	Preparation and properties of isobutyleneâ€“isoprene rubber (IIR)/clay nanocomposites. Polymer Testing, 2005, 24, 12-17.	4.8	96
66	Polymerâ€“nanoparticle interfacial behavior revisited: A molecular dynamics study. Physical Chemistry Chemical Physics, 2011, 13, 13058.	2.8	96
67	Fabrication of silver-coated silica microspheres through mussel-inspired surface functionalization. Journal of Colloid and Interface Science, 2011, 358, 567-574.	9.4	96
68	Molecular dynamics simulation for insight into microscopic mechanism of polymer reinforcement. Physical Chemistry Chemical Physics, 2011, 13, 518-529.	2.8	94
69	Swelling process of rubber in asphalt and its effect on the structure and properties of rubber and asphalt. Construction and Building Materials, 2012, 29, 316-322.	7.2	91
70	Ageing of soft thermoplastic starch with high glycerol content. Journal of Applied Polymer Science, 2007, 103, 574-586.	2.6	90
71	Fabrication and evaluation of electrospun PCLâ€“gelatin micro-/nanofiber membranes for anti-infective GTR implants. Journal of Materials Chemistry B, 2014, 2, 6867-6877.	5.8	90
72	Effect of particle size on flame retardancy of Mg(OH)2-filled ethylene vinyl acetate copolymer composites. Journal of Applied Polymer Science, 2006, 100, 4461-4469.	2.6	89

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73	Chemical and physical interaction between silane coupling agent with long arms and silica and its effect on silica/natural rubber composites. Polymer, 2018, 135, 200-210.	3.8	89
74	General route to graphene with liquid-like behavior by non-covalent modification. Soft Matter, 2012, 8, 9214.	2.7	88
75	Enhanced interfacial interaction and excellent performance of silica/epoxy group-functionalized styrene-butadiene rubber (SBR) nanocomposites without any coupling agent. Composites Part B: Engineering, 2017, 114, 356-364.	12.0	88
76	Study on flammability of montmorillonite/styrene-butadiene rubber (SBR) nanocomposites. Journal of Applied Polymer Science, 2005, 97, 844-849.	2.6	87
77	Enabling Design of Advanced Elastomer with Bioinspired Metalâ€“Oxygen Coordination. ACS Applied Materials & Interfaces, 2016, 8, 32520-32527.	8.0	87
78	Highly efficient mussel-like inspired modification of aramid fibers by UV-accelerated catechol/polyamine deposition followed chemical grafting for high-performance polymer composites. Chemical Engineering Journal, 2017, 314, 583-593.	12.7	87
79	Rational design of covalent interfaces for graphene/elastomer nanocomposites. Composites Science and Technology, 2016, 132, 68-75.	7.8	86
80	Employing a novel bioelastomer to toughen polylactide. Polymer, 2013, 54, 2450-2458.	3.8	85
81	The Interesting Influence of Nanosprings on the Viscoelasticity of Elastomeric Polymer Materials: Simulation and Experiment. Advanced Functional Materials, 2013, 23, 1156-1163.	14.9	85
82	Highly Conductive One-Dimensional Nanofibers: Silvered Electrospun Silica Nanofibers via Poly(dopamine) Functionalization. ACS Applied Materials & Interfaces, 2014, 6, 5105-5112.	8.0	85
83	Vapor grown carbon nanofiber reinforced bio-based polyester for electroactive shape memory performance. Composites Science and Technology, 2013, 75, 15-21.	7.8	84
84	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
85	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
86	Preparation of nanoâ€zinc oxide/EPDM composites with both good thermal conductivity and mechanical properties. Journal of Applied Polymer Science, 2011, 119, 1144-1155.	2.6	82
87	Design and Preparation of a Novel Cross-Linkable, High Molecular Weight, and Bio-Based Elastomer by Emulsion Polymerization. Macromolecules, 2012, 45, 6830-6839.	4.8	81
88	The morphology of zinc dimethacrylate reinforced elastomers investigated by SEM and TEM. European Polymer Journal, 2005, 41, 577-588.	5.4	79
89	New understanding of microstructure formation of the rubber phase in thermoplastic vulcanizates (TPV). Soft Matter, 2014, 10, 1816.	2.7	78
90	High performance dielectric composites by latex compounding of graphene oxide-encapsulated carbon nanosphere hybrids with XNBR. Journal of Materials Chemistry A, 2014, 2, 11144-11154.	10.3	78

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91	A Robust, Selfâ€Healable, and Shape Memory Supramolecular Hydrogel by Multiple Hydrogen Bonding Interactions. Macromolecular Rapid Communications, 2018, 39, e1800138.	3.9	78
92	The use of rhodamine B-decorated graphene as a reinforcement in polyvinyl alcohol composites. Polymer, 2012, 53, 673-680.	3.8	76
93	The surface modification of nanosilica, preparation of nanosilica/acrylic coreâ€shell composite latex, and its application in toughening PVC matrix. Journal of Applied Polymer Science, 2008, 107, 2671-2680.	2.6	75
94	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
95	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.	9.4	73
96	A facile method for preparing highly conductive and reflective surface-silvered polyimide films. Applied Surface Science, 2009, 255, 8207-8212.	6.1	72
97	Interfacial polarization and dielectric properties of aligned carbon nanotubes/polymer composites: The role of molecular polarity. Composites Science and Technology, 2018, 154, 145-153.	7.8	72
98	A new strategy to improve the gas barrier property of isobutyleneâ€“isoprene rubber/clay nanocomposites. Polymer Testing, 2008, 27, 270-276.	4.8	71
99	Effect of expanded graphite (EG) dispersion on the mechanical and tribological properties of nitrile rubber/EG composites. Wear, 2012, 276-277, 85-93.	3.1	71
100	Mechanical, Dielectric, and Actuated Strain of Silicone Elastomer Filled with Various Types of TiO₂. Soft Materials, 2013, 11, 363-370.	1.7	71
101	Structure and performance of reclaimed rubber obtained by different methods. Journal of Applied Polymer Science, 2013, 129, 999-1007.	2.6	71
102	Largely improved actuation strain at low electric field of dielectric elastomer by combining disrupting hydrogen bonds with ionic conductivity. Journal of Materials Chemistry C, 2014, 2, 8388-8397.	5.5	71
103	Hierarchical electrospun SiO2 nanofibers containing SiO2 nanoparticles with controllable surface-roughness and/or porosity. Materials Letters, 2010, 64, 1517-1520.	2.6	70
104	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
105	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
106	Preparation of PET/Ag hybrid fibers via a biomimetic surface functionalization method. Electrochimica Acta, 2012, 79, 37-45.	5.2	69
107	Improved electromechanical properties of silicone dielectric elastomer composites by tuning molecular flexibility. Composites Science and Technology, 2018, 155, 160-168.	7.8	68
108	Quantitatively identify and understand the interphase of SiO2/rubber nanocomposites by using nanomechanical mapping technique of AFM. Composites Science and Technology, 2019, 170, 1-6.	7.8	66

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109	Study on preparation and properties of carbon nanotubes/rubber composites. Journal of Materials Science, 2006, 41, 2541-2544.	3.7	65
110	Largely improved electromechanical properties of thermoplastic polyurethane dielectric elastomers by the synergistic effect of polyethylene glycol and partially reduced graphene oxide. Composites Science and Technology, 2017, 142, 311-320.	7.8	65
111	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
112	Modification of starch for high performance elastomer. Polymer, 2006, 47, 3896-3903.	3.8	64
113	Enhancing Crystallinity and Orientation by Hot-Stretching to Improve the Mechanical Properties of Electrospun Partially Aligned Polyacrylonitrile (PAN) Nanocomposites. Materials, 2011, 4, 621-632.	2.9	64
114	Lead magnesium niobateâ€filled silicone dielectric elastomer with large actuated strain. Journal of Applied Polymer Science, 2012, 125, 2196-2201.	2.6	64
115	High performance bio-based elastomers: energy efficient and sustainable materials for tires. Journal of Materials Chemistry A, 2016, 4, 13058-13062.	10.3	64
116	Stearic acid surface modifying Mg(OH)₂: Mechanism and its effect on properties of ethylene vinyl acetate/Mg(OH)₂ composites. Journal of Applied Polymer Science, 2008, 107, 3325-3331.	2.6	63
117	Timeâ^'Temperature and Timeâ^'Concentration Superposition of Nanofilled Elastomers: A Molecular Dynamics Study. Macromolecules, 2009, 42, 2831-2842.	4.8	63
118	Incorporation of graphene into polyester/carbon nanofibers composites for better multi-stimuli responsive shape memory performances. Carbon, 2013, 64, 487-498.	10.3	63
119	Dramatically improved dielectric properties of polymer composites by controlling the alignment of carbon nanotubes in matrix. RSC Advances, 2014, 4, 4543-4551.	3.6	63
120	Preparation, fracture, and fatigue of exfoliated graphene oxide/natural rubber composites. RSC Advances, 2015, 5, 17140-17148.	3.6	63
121	Improved dielectric properties, mechanical properties, and thermal conductivity properties of polymer composites via controlling interfacial compatibility with bio-inspired method. Applied Surface Science, 2018, 439, 186-195.	6.1	63
122	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
123	Noninvasive Imaging of Enhanced Prostate-Specific Gene Expression Using a Two-Step Transcriptional Amplification-Based Lentivirus Vector. Molecular Therapy, 2004, 10, 545-552.	8.2	62
124	Infrared study onin situ polymerization of zinc dimethacrylate in poly(Î±-octylene-co-ethylene) elastomer. Polymer International, 2004, 53, 802-808.	3.1	61
125	THE EFFECT OF RESPIRATORY SYNCTIAL VIRUS ON CHEMOKINE RELEASE BY DIFFERENTIATED AIRWAY EPITHELIUM. Experimental Lung Research, 2004, 30, 43-57.	1.2	61
126	Complete devulcanization of sulfurâ€cured butyl rubber by using supercritical carbon dioxide. Journal of Applied Polymer Science, 2013, 127, 2397-2406.	2.6	61

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127	Icariin-loaded electrospun PCL/gelatin nanofiber membrane as potential artificial periosteum. Colloids and Surfaces B: Biointerfaces, 2018, 170, 201-209.	5.0	61
128	Novel nitrile-butadiene rubber composites with enhanced thermal conductivity and high dielectric constant. Composites Part A: Applied Science and Manufacturing, 2019, 124, 105447.	7.6	61
129	Static, rheological and mechanical properties of polymer nanocomposites studied by computer modeling and simulation. Physical Chemistry Chemical Physics, 2009, 11, 11365.	2.8	60
130	Synthesis and characterization of biobased isosorbide-containing copolyesters as shape memory polymers for biomedical applications. Journal of Materials Chemistry B, 2014, 2, 7877-7886.	5.8	60
131	Preparation, morphology and superior performances of biobased thermoplastic elastomer by in situ dynamical vulcanization for 3D-printed materials. Polymer, 2017, 108, 11-20.	3.8	60
132	Enhanced thermo-oxidative aging resistance of EPDM at high temperature by using synergistic antioxidants. Polymer Degradation and Stability, 2014, 102, 1-8.	5.8	59
133	From nano to giant? Designing carbon nanotubes for rubber reinforcement and their applications for high performance tires. Composites Science and Technology, 2016, 137, 94-101.	7.8	58
134	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
135	Toughening Elastomers Using a Mussel-Inspired Multiphase Design. ACS Applied Materials & Interfaces, 2018, 10, 23485-23489.	8.0	57
136	NMR Structure of a Heterodimeric SAM:SAM Complex: Characterization and Manipulation of EphA2 Binding Reveal New Cellular Functions of SHIP2. Structure, 2012, 20, 41-55.	3.3	56
137	Study on the structure and properties of conductive silicone rubber filled with nickelâ€coated graphite. Journal of Applied Polymer Science, 2010, 115, 2710-2717.	2.6	55
138	Preparation, structure, and properties of a novel rectorite/styrene-butadiene copolymer nanocomposite. Journal of Applied Polymer Science, 2005, 96, 324-328.	2.6	54
139	Preparation, properties and cytotoxicity evaluation of a biodegradable polyester elastomer composite. Polymer Degradation and Stability, 2009, 94, 1427-1435.	5.8	54
140	Revisiting the Dispersion Mechanism of Grafted Nanoparticles in Polymer Matrix: A Detailed Molecular Dynamics Simulation. Langmuir, 2011, 27, 15213-15222.	3.5	54
141	Numerical simulation and experimental verification of heat build-up for rubber compounds. Polymer, 2016, 101, 199-207.	3.8	54
142	Coupled Nucleotide and Mucin Hypersecretion from Goblet-Cell Metaplastic Human Airway Epithelium. American Journal of Respiratory Cell and Molecular Biology, 2011, 45, 253-260.	2.9	53
143	Antimicrobial gelatin-based elastomer nanocomposite membrane loaded with ciprofloxacin and polymyxin B sulfate in halloysite nanotubes for wound dressing. Materials Science and Engineering C, 2018, 87, 128-138.	7.3	53
144	Optimization of adenoviral vectors to direct highly amplified prostate-specific expression for imaging and gene therapy. Molecular Therapy, 2003, 8, 726-737.	8.2	52

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145	Surface modification of fibrillar silicate and its reinforcing mechanism on FS/rubber composites. Composites Science and Technology, 2005, 65, 1129-1138.	7.8	52
146	New polyester dielectric elastomer with large actuated strain at low electric field. Materials Letters, 2012, 76, 229-232.	2.6	52
147	Triboelectric Nanogenerator Boosts Smart Green Tires. Advanced Functional Materials, 2019, 29, 1806331.	14.9	52
148	Luminescence Properties of Eu(III) Complex/Polyvinylpyrrolidone Electrospun Composite Nanofibers. Journal of Physical Chemistry C, 2010, 114, 3898-3903.	3.1	51
149	Supramolecular ionic liquid based on graphene oxide. Physical Chemistry Chemical Physics, 2012, 14, 9838.	2.8	51
150	Bioderived Rubberâ€“Cellulose Nanocrystal Composites with Tunable Water-Responsive Adaptive Mechanical Behavior. ACS Applied Materials & Interfaces, 2017, 9, 6482-6487.	8.0	51
151	Molecular Dynamics Simulation Insight Into Two-Component Solubility Parameters of Graphene and Thermodynamic Compatibility of Graphene and Styrene Butadiene Rubber. Journal of Physical Chemistry C, 2017, 121, 10163-10173.	3.1	51
152	Simultaneously improved dielectric and mechanical properties of silicone elastomer by designing a dual crosslinking network. Polymer Chemistry, 2019, 10, 633-645.	3.9	51
153	Preparation and characterization of a thermoplastic poly(glycerol sebacate) elastomer by two-step method. Journal of Applied Polymer Science, 2007, 103, 1412-1419.	2.6	50
154	Stretching-induced crystallinity and orientation to improve the mechanical properties of electrospun PAN nanocomposites. Materials & Design, 2010, 31, 1726-1730.	5.1	50
155	Electrospinning preparation and luminescence properties of Eu(TTA)3phen/polystyrene composite nanofibers. Journal of Rare Earths, 2010, 28, 333-339.	4.8	50
156	Design, preparation and properties of bio-based elastomer composites aiming at engineering applications. Composites Science and Technology, 2016, 133, 136-156.	7.8	50
157	Synthesis, characterization and in vitro degradation of a novel degradable poly((1,2-propanediol-sebacate)-citrate) bioelastomer. Polymer Degradation and Stability, 2007, 92, 389-396.	5.8	49
158	In vitro degradation of starch/PVA films and biocompatibility evaluation. Journal of Applied Polymer Science, 2010, 115, 346-357.	2.6	49
159	A new kind of electro-active polymer composite composed of silicone elastomer and polyethylene glycol. Journal Physics D: Applied Physics, 2012, 45, 485303.	2.8	49
160	Molecular dynamics simulations and microscopic analysis of the damping performance of hindered phenol AO-60/nitrile-butadiene rubber composites. RSC Advances, 2014, 4, 6719.	3.6	49
161	Nanodot-Loaded Clay Nanotubes as Green and Sustained Radical Scavengers for Elastomer. ACS Sustainable Chemistry and Engineering, 2017, 5, 1775-1783.	6.7	49
162	Synthesis, characterization and in vitro degradation study of a novel and rapidly degradable elastomer. Polymer Degradation and Stability, 2006, 91, 733-739.	5.8	48

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163	Fabrication and Properties of Silverized Glass Fiber by Dopamine Functionalization and Electroless Plating. Journal of the Electrochemical Society, 2012, 159, D217-D224.	2.9	48
164	Effects of interfacial interaction on chain dynamics of rubber/graphene oxide hybrids: a dielectric relaxation spectroscopy study. RSC Advances, 2013, 3, 14549.	3.6	48
165	Relations between carbon nanotubes' length and their composites' mechanical and functional performance. Polymer, 2013, 54, 2158-2165.	3.8	48
166	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
167	Reinforcement of Elastomer by Starch. Macromolecular Materials and Engineering, 2006, 291, 629-637.	3.6	47
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489	Progress in multi-scaled structure and related properties of elastomer nanocomposites explored by molecular dynamics simulation. Nippon Gomu Kyokaishi, 2017, 90, 67-71.	0.0	0