

Min Zhi Rong

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130
papers

4,861
citations

36
h-index

67
g-index

135
ext. papers

5,487
ext. citations

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avg, IF

6.04
L-index

#	Paper	IF	Citations
130	Self-Healing Polymeric Materials Using Epoxy/Mercaptan as the Healant. <i>Macromolecules</i> , 2008 , 41, 5197-5202	5.5	358
129	Room-Temperature Self-Healable and Remoldable Cross-linked Polymer Based on the Dynamic Exchange of Disulfide Bonds. <i>Chemistry of Materials</i> , 2014 , 26, 2038-2046	9.6	352
128	Polymer engineering based on reversible covalent chemistry: A promising innovative pathway towards new materials and new functionalities. <i>Progress in Polymer Science</i> , 2018 , 80, 39-93	29.6	285
127	A thermally remendable epoxy resin. <i>Journal of Materials Chemistry</i> , 2009 , 19, 1289		194
126	Photo-stimulated self-healing polyurethane containing dihydroxyl coumarin derivatives. <i>Polymer</i> , 2012 , 53, 2691-2698	3.9	187
125	Self-Healing of Polymers via Synchronous Covalent Bond Fission/Radical Recombination. <i>Chemistry of Materials</i> , 2011 , 23, 5076-5081	9.6	180
124	Sunlight driven self-healing, reshaping and recycling of a robust, transparent and yellowing-resistant polymer. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 10683-10690	13	131
123	Analysis of the interfacial interactions in polypropylene/silica nanocomposites. <i>Polymer International</i> , 2004 , 53, 176-183	3.3	126
122	Catalyst-free dynamic exchange of aromatic Schiff base bonds and its application to self-healing and remolding of crosslinked polymers. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 19662-19668	13	119
121	Improvement of Tribological Performance of Epoxy by the Addition of Irradiation Grafted Nano-Inorganic Particles. <i>Macromolecular Materials and Engineering</i> , 2002 , 287, 111-115	3.9	111
120	Mechanically Robust, Self-Healable, and Highly Stretchable Living/Crosslinked Polyurethane Based on a Reversible C-C Bond. <i>Advanced Functional Materials</i> , 2018 , 28, 1706050	15.6	110
119	Alkoxyamine with reduced homolysis temperature and its application in repeated autonomous self-healing of stiff polymers. <i>Polymer Chemistry</i> , 2013 , 4, 4648	4.9	109
118	Mechanical properties of low nano-silica filled high density polyethylene composites. <i>Polymer Engineering and Science</i> , 2003 , 43, 490-500	2.3	108
117	Synthesis and characterization of epoxy with improved thermal remendability based on Diels-Alder reaction. <i>Polymer International</i> , 2010 , 59, 1339-1345	3.3	103
116	Interfacial effects in polypropylene/silica nanocomposites. <i>Journal of Applied Polymer Science</i> , 2004 , 92, 1771-1781	2.9	96
115	A dual mechanism single-component self-healing strategy for polymers. <i>Journal of Materials Chemistry</i> , 2010 , 20, 6030		94
114	Irradiation graft polymerization on nano-inorganic particles: An effective means to design polymer-based nanocomposites. <i>Journal of Materials Science Letters</i> , 2000 , 19, 1159-1161		85

113	A seawater triggered dynamic coordinate bond and its application for underwater self-healing and reclaiming of lipophilic polymer. <i>Chemical Science</i> , 2016 , 7, 2736-2742	9.4	79
112	Self-healing, Reshaping, and Recycling of Vulcanized Chloroprene Rubber: A Case Study of Multitask Cyclic Utilization of Cross-linked Polymer. <i>ACS Sustainable Chemistry and Engineering</i> , 2016 , 4, 2715-2724	8.3	75
111	Repeated Intrinsic Self-Healing of Wider Cracks in Polymer via Dynamic Reversible Covalent Bonding Molecularly Combined with a Two-Way Shape Memory Effect. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 38538-38546	9.5	75
110	Self-Healing of Thermoplastics via Living Polymerization. <i>Macromolecules</i> , 2010 , 43, 595-598	5.5	68
109	A sunlight self-healable transparent strain sensor with high sensitivity and durability based on a silver nanowire/polyurethane composite film. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 2315-2325	13	63
108	Atomic force microscopy study on structure and properties of irradiation grafted silica particles in polypropylene-based nanocomposites. <i>Journal of Applied Polymer Science</i> , 2001 , 80, 2218-2227	2.9	62
107	Imparting Ultra-Low Friction and Wear Rate to Epoxy by the Incorporation of Microencapsulated Lubricant?. <i>Macromolecular Materials and Engineering</i> , 2009 , 294, 20-24	3.9	61
106	Application of alkoxyamine in self-healing of epoxy. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 6558-6566	13	60
105	Theoretical consideration and modeling of self-healing polymers. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2012 , 50, 229-241	2.6	59
104	Stabilization of catecholBoronic ester bonds for underwater self-healing and recycling of lipophilic bulk polymer in wider pH range. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 14122-14131	13	58
103	Preparation of Binary Conductive Polymer Composites with Very Low Percolation Threshold by Latex Blending. <i>Macromolecular Rapid Communications</i> , 2003 , 24, 889-893	4.8	58
102	Dynamic reversible bonds enable external stress-free two-way shape memory effect of a polymer network and the interrelated intrinsic self-healability of wider crack and recyclability. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 16053-16063	13	52
101	Self-healing polymeric materials towards non-structural recovery of functional properties. <i>Polymer International</i> , 2014 , 63, 1741-1749	3.3	45
100	Thermo-molded self-healing thermoplastics containing multilayer microreactors. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 7191	13	44
99	Irradiation-induced surface graft polymerization onto calcium carbonate nanoparticles and its toughening effects on polypropylene composites. <i>Polymer Engineering and Science</i> , 2005 , 45, 529-538	2.3	41
98	Preparation of graphene oxide and polymer-like quantum dots and their one- and two-photon induced fluorescence properties. <i>Physical Chemistry Chemical Physics</i> , 2016 , 18, 4800-6	3.6	39
97	Interfacial interaction in Ag/polymer nanocomposite films. <i>Journal of Materials Science Letters</i> , 2001 , 20, 1473-1476		39
96	Role of reactive compatibilization in preparation of nanosilica/polypropylene composites. <i>Polymer Engineering and Science</i> , 2007 , 47, 499-509	2.3	38

95	A facile heteroaggregate-template route to hollow magnetic mesoporous spheres with tunable shell structures. <i>Journal of Materials Chemistry</i> , 2011 , 21, 9020		36
94	A Novel Self-Healing Epoxy System with Microencapsulated Epoxy and Imidazole Curing Agent. <i>Advanced Composites Letters</i> , 2007 , 16, 096369350701600	1.2	34
93	Polypropylene composites filled with in-situ grafting polymerization modified nano-silica particles. <i>Journal of Materials Science</i> , 2004 , 39, 3475-3478	4.3	34
92	Effect of Drawing Induced Dispersion of Nano-Silica on Performance Improvement of Poly(propylene)-Based Nanocomposites. <i>Macromolecular Rapid Communications</i> , 2006 , 27, 581-585	4.8	33
91	Adaptable Interlocking Macromolecular Networks with Homogeneous Architecture Made from Immiscible Single Networks. <i>Macromolecules</i> , 2020 , 53, 584-593	5.5	31
90	Surface grafting onto SiC nanoparticles with glycidyl methacrylate in emulsion. <i>Journal of Polymer Science Part A</i> , 2004 , 42, 3842-3852	2.5	30
89	Self-Healing of Polymer in Acidic Water toward Strength Restoration through the Synergistic Effect of Hydrophilic and Hydrophobic Interactions. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 37300-37309	8.5	29
88	A novel sensor for organic solvent vapors based on conductive amorphous polymer composites: carbon black/poly(butyl methacrylate). <i>Polymer Bulletin</i> , 2003 , 50, 99-106	2.4	28
87	A Facile Approach Toward Scalable Fabrication of Reversible Shape-Memory Polymers with Bonded Elastomer Microphases as Internal Stress Provider. <i>Macromolecular Rapid Communications</i> , 2017 , 38, 1700124	4.8	27
86	Moisture Battery Formed by Direct Contact of Magnesium with Foamed Polyaniline. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 1805-9	16.4	27
85	Electrical Response to Organic Vapor of Conductive Composites from Amorphous Polymer/Carbon Black Prepared by Polymerization Filling. <i>Macromolecular Materials and Engineering</i> , 2003 , 288, 103-107	3.9	26
84	A thermally remendable and reprocessable crosslinked methyl methacrylate polymer based on oxygen insensitive dynamic reversible CDN bonds. <i>RSC Advances</i> , 2016 , 6, 6350-6357	3.7	25
83	Synergistic effect of dual targeting vaccine adjuvant with aminated β -glucan and CpG-oligodeoxynucleotides for both humoral and cellular immune responses. <i>Acta Biomaterialia</i> , 2018 , 78, 211-223	10.8	25
82	All-plant fiber composites. II: Water absorption behavior and biodegradability of unidirectional sisal fiber reinforced benzylated wood. <i>Polymer Composites</i> , 2003 , 24, 367-379	3	25
81	Thermo-moldable self-healing commodity plastics with heat resisting and oxygen-insensitive healant capable of room temperature redox cationic polymerization. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 1858-1862	13	23
80	Tribological behavior of epoxy composites containing reactive SiC nanoparticles. <i>Journal of Applied Polymer Science</i> , 2007 , 104, 2608-2619	2.9	23
79	Effects of reactive compatibilization on the performance of nano-silica filled polypropylene composites. <i>Journal of Materials Science</i> , 2006 , 41, 5767-5770	4.3	23
78	Interfacial interaction in sisal/epoxy composites and its influence on impact performance. <i>Polymer Composites</i> , 2002 , 23, 182-192	3	22

77	Covalently Connecting Nanoparticles with Epoxy Matrix and its Effect on the Improvement of Tribological Performance of the Composites. <i>Polymers and Polymer Composites</i> , 2005 , 13, 245-252	0.8	22
76	A Very Simple Strategy for Preparing External Stress-Free Two-Way Shape Memory Polymers by Making Use of Hydrogen Bonds. <i>Macromolecular Rapid Communications</i> , 2018 , 39, e1700714	4.8	21
75	Improvement of notch toughness of low nano-SiO ₂ filled polypropylene composites. <i>Journal of Materials Science Letters</i> , 2003 , 22, 1027-1030		21
74	Improvement of conductive network quality in carbon black-filled polymer blends. <i>Journal of Applied Polymer Science</i> , 2002 , 84, 2768-2775	2.9	20
73	Surface modification of magnetic metal nanoparticles and its influence on the performance of polymer composites. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2003 , 41, 1070-1084	2.6	19
72	Carbon black filled poly(2-ethylhexyl methacrylate) as a candidate for gas sensing material. <i>Journal of Materials Science Letters</i> , 2003 , 22, 1057-1059		17
71	External Stress-Free Reversible Multiple Shape Memory Polymers. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 31346-31355	9.5	16
70	Graft Polymerization of Vinyl Monomers onto Nanosized Silicon Carbide Particles. <i>Polymers and Polymer Composites</i> , 2002 , 10, 531-540	0.8	16
69	Reversibly Interlocked Macromolecule Networks with Enhanced Mechanical Properties and Wide pH Range of Underwater Self-Healability. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 27614-27624	9.5	15
68	Repeatedly Intrinsic Self-Healing of Millimeter-Scale Wounds in Polymer through Rapid Volume Expansion Aided Host-Guest Interaction. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 22534-22542	9.5	15
67	Fabrication of Nanoparticle/Polymer Composites by In Situ Bubble-Stretching and Reactive Compatibilization. <i>Macromolecular Chemistry and Physics</i> , 2006 , 207, 2093-2102	2.6	15
66	A facile and scalable process to synthesize flexible lithium ion conductive glass-ceramic fibers.. <i>RSC Advances</i> , 2019 , 9, 4157-4161	3.7	14
65	Plant oil-based biofoam composites with balanced performance. <i>Polymer International</i> , 2009 , 58, 403-413	3.3	14
64	Topological rearrangement-derived homogeneous polymer networks capable of reversibly interlocking: From phantom to reality and beyond. <i>Materials Today</i> , 2020 , 33, 45-55	21.8	14
63	Imparting External Stress-Free Two-Way Shape Memory Effect to Commodity Polyolefins by Manipulation of Their Hierarchical Structures. <i>ACS Macro Letters</i> , 2019 , 8, 1141-1146	6.6	13
62	Gas Sensing Materials from Carbon Black/Poly(Methyl Methacrylate) Composites. <i>Polymers and Polymer Composites</i> , 2003 , 11, 291-299	0.8	13
61	The Preparation of Self-Reinforced Sisal Fiber Composites. <i>Polymers and Polymer Composites</i> , 2004 , 12, 297-308	0.8	13
60	Performance stabilization of conductive polymer composites. <i>Journal of Applied Polymer Science</i> , 2003 , 89, 2438-2445	2.9	13

59	Carbon black-filled polyolefins as positive temperature coefficient materials: The effect of in situ grafting during melt compounding. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2003 , 41, 127-134	2.6	13
58	Natural Vegetable Fibre / Plasticised Natural Vegetable Fibre - a Candidate for Low Cost and Fully Biodegradable Composite. <i>Advanced Composites Letters</i> , 1999 , 8, 096369359900800	1.2	13
57	Continuous High-Content Keratin Fibers with Balanced Properties Derived from Wool Waste. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 18148-18156	8.3	13
56	Self-healable and thiol-ene UV-curable waterborne polyurethane for anticorrosion coating. <i>Journal of Applied Polymer Science</i> , 2019 , 136, 47700	2.9	11
55	Preparation of bifunctionalized phenylene-bridged periodic mesoporous organosilica for solid-phase microextraction. <i>RSC Advances</i> , 2014 , 4, 168-174	3.7	11
54	Interfacial effects in short sisal fiber/maleated castor oil foam composites. <i>Composite Interfaces</i> , 2008 , 15, 95-110	2.3	11
53	A Comparative Study of Nanosilica/Poly(propylene) Composites Prepared by Reactive Compatibilization. <i>Macromolecular Chemistry and Physics</i> , 2008 , 209, 1826-1835	2.6	11
52	Mechanical Properties of Nanocomposites from Ball Milling Grafted Nano-Silica/Polypropylene Block Copolymer. <i>Polymers and Polymer Composites</i> , 2004 , 12, 257-268	0.8	11
51	Thermally conductive glass fiber reinforced epoxy composites with intrinsic self-healing capability. <i>Advanced Composites and Hybrid Materials</i> , 1	8.7	11
50	Effects of Processing on Electric Response of Carbon Black Filled Poly(methyl methacrylate) Composites against Organic Solvent Vapors. <i>Polymer Journal</i> , 2003 , 35, 1003-1008	2.7	10
49	Thermal stability of frictional surface layer and wear debris of epoxy nanocomposites in relation to the mechanism of tribological performance improvement. <i>Journal of Materials Science</i> , 2004 , 39, 3817-3820	4.3	10
48	Viscoelasticity and flow behavior of irradiation grafted nano-inorganic particle filled polypropylene composites in the melt state. <i>Science and Technology of Advanced Materials</i> , 2002 , 3, 111-116	7.1	10
47	Heat treatment-induced multiple melting behavior of carbon black-filled polymer blends in relation to the conductive performance stabilization. <i>Journal of Applied Polymer Science</i> , 2001 , 80, 1267-1273	2.9	10
46	All-Plant Fibre Composites: Self Reinforced Composites Based on Sisal. <i>Advanced Composites Letters</i> , 2001 , 10, 096369350101000	1.2	10
45	Moisture Battery Formed by Direct Contact of Magnesium with Foamed Polyaniline. <i>Angewandte Chemie</i> , 2016 , 128, 1837-1841	3.6	9
44	Time dependent percolation of carbon black filled polymer composites in response to solvent vapor. <i>Journal of Materials Science</i> , 2005 , 40, 2065-2068	4.3	9
43	Analysis of gas sensing behaviors of carbon black/waterborne polyurethane composites in low concentration organic vapors. <i>Journal of Materials Science</i> , 2007 , 42, 4575-4580	4.3	8
42	Grafting of Poly(glycidyl methacrylate) onto Nano-SiO ₂ and Its Reactivity in Polymers. <i>Polymer Journal</i> , 2005 , 37, 677-685	2.7	8

41	Effect of Soft Segments of Waterborne Polyurethane on Organic Vapor Sensitivity of Carbon Black Filled Waterborne Polyurethane Composites. <i>Polymer Journal</i> , 2006 , 38, 799-806	2.7	8
40	Deformation Characteristics of Nano-SiO ₂ Filled Polypropylene Composites. <i>Polymers and Polymer Composites</i> , 2003 , 11, 559-562	0.8	8
39	Self-healing epoxy with a fast and stable extrinsic healing system based on BF ₃ mine complex. <i>RSC Advances</i> , 2016 , 6, 100796-100803	3.7	7
38	Improvement of multiple-responsive shape memory effects of wool through increasing the content of disulfide bonds. <i>Polymer</i> , 2020 , 188, 122130	3.9	7
37	Polyurethane/Polyolefin Blends: Morphology, Compatibilization and Mechanical Properties. <i>Polymers and Polymer Composites</i> , 2006 , 14, 1-11	0.8	6
36	In situ melt grafting in carbon black/polyolefin composites and its influence on conductive performance. <i>Polymer International</i> , 2004 , 53, 944-950	3.3	6
35	Interfacial interaction in stainless steel fiber-filled polypropylene composites. <i>Journal of Applied Polymer Science</i> , 2000 , 78, 2174-2179	2.9	6
34	Highly thermally conductive flexible copper clad laminates based on sea-island structured boron nitride/polyimide composites. <i>Composites Science and Technology</i> , 2021 , 109087	8.6	6
33	Dynamically Cross-Linked Polymeric Binder-Made Durable Silicon Anode of a Wide Operating Temperature Li-Ion Battery. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 28737-28748	9.5	6
32	Strategy of fabrication of controlled thermosetting gel based on soybean oil towards supercritical carbon dioxide foaming. <i>Green Chemistry</i> , 2014 , 16, 1225-1235	10	5
31	Thermally induced performance decay in conductive polymer composites. <i>Polymer Composites</i> , 2004 , 25, 270-279	3	5
30	Nanostructured Silver/Polystyrene Composite Film: Preparation and Ultrafast Third-Order Optical Nonlinearity. <i>Polymers and Polymer Composites</i> , 2002 , 10, 291-298	0.8	5
29	Adaptable Reversibly Interlocked Networks from Immiscible Polymers Enhanced by Hierarchy-Induced Multilevel Energy Consumption Mechanisms. <i>Macromolecules</i> , 2021 , 54, 4802-4815	5.5	5
28	Photo-induced topological self-reorganization and self-growth of polymer based on dynamic reversible aromatic pinacol units. <i>Polymer</i> , 2020 , 192, 122299	3.9	4
27	Implementation of the Pulley Effect of Polyrotaxane in Transparent Bulk Polymer for Simultaneous Strengthening and Toughening. <i>Macromolecular Rapid Communications</i> , 2020 , 41, e2000371	4.8	4
26	Localized compatibilization in immiscible blends of thermoplastic polyurethane and ethylene-octylene copolymer. <i>Journal of Applied Polymer Science</i> , 2007 , 105, 1309-1315	2.9	3
25	Surface functionalization of Si ₃ N ₄ nanoparticles by graft polymerization of glycidyl methacrylate and styrene. <i>Journal of Applied Polymer Science</i> , 2006 , 102, 992-999	2.9	3
24	Electrical resistance response of poly(ethylene oxide)-based conductive composites to organic vapors: Effect of filler content, vapor species, and temperature. <i>Journal of Applied Polymer Science</i> , 2005 , 98, 1517-1523	2.9	3

23	Self-healing of thermally molded commodity plastics based on heat-resistant and anti-aging healing systems. <i>RSC Advances</i> , 2016 , 6, 93410-93418	3.7	3
22	Performance Improvement of Nano-silica/Polypropylene Composites through in-situ Graft Modification of Nanoparticles during Melt Compounding. <i>E-Polymers</i> , 2007 , 7,	2.7	2
21	Organic vapor sensibility of carbon black/polyethylene wax composites. <i>Journal of Materials Science</i> , 2004 , 39, 5617-5620	4.3	2
20	Enzyme degradability of benzylated sisal and its self-reinforced composites. <i>Polymers for Advanced Technologies</i> , 2003 , 14, 676-685	3.2	2
19	Tailored modular assembly derived self-healing polythioureas with largely tunable properties covering plastics, elastomers and fibers.. <i>Nature Communications</i> , 2022 , 13, 2633	17.4	2
18	Highly Filled Nano-CdS/Polystyrene Nanocomposite Film with Self-Organization Behavior. <i>Polymers and Polymer Composites</i> , 2003 , 11, 441-448	0.8	1
17	Organic Vapour Sensor from Carbon Black Filled Amorphous Polymer Composite: Effects of Processing, Carbon Fibres and Irradiation. <i>Polymers and Polymer Composites</i> , 2005 , 13, 213-221	0.8	1
16	Improving creep resistance while maintaining reversibility of covalent adaptive networks via constructing reversibly interlocked polymer networks. <i>Materials Today Chemistry</i> , 2022 , 23, 100687	6.2	1
15	Preparation of a water soluble aminated β -1,3-D-glucan for gene carrier: The in vitro study of the anti-inflammatory activity and transfection efficiency. <i>Journal of Biomedical Materials Research - Part A</i> , 2021 , 109, 2506-2515	5.4	1
14	A novel strategy for producing high-performance continuous regenerated fibers with wool-like structure. <i>SusMat</i> , 2022 , 2, 90-103		1
13	Controllable Depolymerization and Recovery of Interlocked Covalent Adaptable Networks via Cascading Reactions of the Built-In Reversible Bonds. <i>Macromolecules</i> , 2022 , 55, 262-269	5.5	1
12	UV-Curable Polyurethane Elastomer with UV-Irradiation/Thermo Dual-Activated Self-Healability. <i>Macromolecular Materials and Engineering</i> , 2100874	3.9	0
11	Photochemically Remendable Polymers 2013 , 173-191		
10	Self-Healing Polymers and Polymer Composites 29-71		
9	Percolation and Gas Sensing Behaviours of Ternary Conductive Composites: Vapour-Grown Carbon Fibres/Carbon Black/Poly(Methyl Methacrylate). <i>Advanced Composites Letters</i> , 2003 , 12, 096369350301200		1.3
8	Intrinsic Self-Healing Via the Diels-Alder Reaction 2022 , 223-249		
7	Intrinsic Self-Healing Via Exchange Reaction of the Disulfide Bond 2022 , 288-331		
6	Extrinsic Self-Healing via Addition Polymerization 2022 , 64-107		

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1 Basics of Self-Healing [State of the Art] **2022**, 1-63