Min Zhi Rong

List of Publications by Year
in descending order

124 papers	6,193 citations	81900 39 h-index	74163 75 g-index
135 all docs	135 docs citations	135 times ranked	5446 citing authors

#	Article	IF	Citations
1	Room-Temperature Self-Healable and Remoldable Cross-linked Polymer Based on the Dynamic Exchange of Disulfide Bonds. Chemistry of Materials, 2014, 26, 2038-2046.	6.7	459
2	Polymer engineering based on reversible covalent chemistry: A promising innovative pathway towards new materials and new functionalities. Progress in Polymer Science, 2018, 80, 39-93.	24.7	419
3	Self-Healing Polymeric Materials Using Epoxy/Mercaptan as the Healant. Macromolecules, 2008, 41, 5197-5202.	4.8	393
4	A thermally remendable epoxy resin. Journal of Materials Chemistry, 2009, 19, 1289.	6.7	237
5	Photo-stimulated self-healing polyurethane containing dihydroxyl coumarin derivatives. Polymer, 2012, 53, 2691-2698.	3.8	216
6	Self-Healing of Polymers via Synchronous Covalent Bond Fission/Radical Recombination. Chemistry of Materials, 2011, 23, 5076-5081.	6.7	198
7	Sunlight driven self-healing, reshaping and recycling of a robust, transparent and yellowing-resistant polymer. Journal of Materials Chemistry A, 2016, 4, 10683-10690.	10.3	177
8	Catalyst-free dynamic exchange of aromatic Schiff base bonds and its application to self-healing and remolding of crosslinked polymers. Journal of Materials Chemistry A, 2015, 3, 19662-19668.	10.3	166
9	Mechanically Robust, Selfâ€Healable, and Highly Stretchable â€œLivingâ€•Crosslinked Polyurethane Based on a Reversible Cï£¿C Bond. Advanced Functional Materials, 2018, 28, 1706050.	14.9	155
10	Analysis of the interfacial interactions in polypropylene/silica nanocomposites. Polymer International, 2004, 53, 176-183.	3.1	137
11	Mechanical properties of low nano-silica filled high density polyethylene composites. Polymer Engineering and Science, 2003, 43, 490-500.	3.1	124
12	Alkoxyamine with reduced homolysis temperature and its application in repeated autonomous self-healing of stiff polymers. Polymer Chemistry, 2013, 4, 4648.	3.9	124
13	Synthesis and characterization of epoxy with improved thermal remendability based on Dielsâ€Alder reaction. Polymer International, 2010, 59, 1339-1345.	3.1	122
14	Improvement of Tribological Performance of Epoxy by the Addition of Irradiation Grafted Nano-Inorganic Particles. Macromolecular Materials and Engineering, 2002, 287, 111-115.	3.6	120
15	Self-healing, Reshaping, and Recycling of Vulcanized Chloroprene Rubber: A Case Study of Multitask Cyclic Utilization of Cross-linked Polymer. ACS Sustainable Chemistry and Engineering, 2016, 4, 2715-2724.	6.7	106
16	Interfacial effects in polypropylene-silica nanocomposites. Journal of Applied Polymer Science, 2004, 92, 1771-1781.	2.6	104
17	A dual mechanism single-component self-healing strategy for polymers. Journal of Materials Chemistry, 2010, 20, 6030.	6.7	103
18	Repeated Intrinsic Self-Healing of Wider Cracks in Polymer via Dynamic Reversible Covalent Bonding Molecularly Combined with a Two-Way Shape Memory Effect. ACS Applied Materials & Interfaces, 2018, 10, 38538-38546.	8.0	101

#	Article	IF	Citations
19	Title is missing!. Journal of Materials Science Letters, 2000, 19, 1159-1161.	0.5	99
20	A seawater triggered dynamic coordinate bond and its application for underwater self-healing and reclaiming of lipophilic polymer. Chemical Science, 2016, 7, 2736-2742.	7.4	97
21	A sunlight self-healable transparent strain sensor with high sensitivity and durability based on a silver nanowire/polyurethane composite film. Journal of Materials Chemistry A, 2019, 7, 2315-2325.	10.3	86
22	Imparting Ultraâ€Low Friction and Wear Rate to Epoxy by the Incorporation of Microencapsulated Lubricant?. Macromolecular Materials and Engineering, 2009, 294, 20-24.	3.6	76
23	Stabilization of catecholâ€“boronic ester bonds for underwater self-healing and recycling of lipophilic bulk polymer in wider pH range. Journal of Materials Chemistry A, 2016, 4, 14122-14131.	10.3	75
24	Self-Healing of Thermoplastics via Living Polymerization. Macromolecules, 2010, 43, 595-598.	4.8	71
25	Application of alkoxyamine in self-healing of epoxy. Journal of Materials Chemistry A, 2014, 2, 6558-6566.	10.3	70
26	Atomic force microscopy study on structure and properties of irradiation grafted silica particles in polypropylene-based nanocomposites. Journal of Applied Polymer Science, 2001, 80, 2218-2227.	2.6	69
27	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. Journal of Materials Chemistry A, 2018, 6, 16053-16063.	10.3	68
28	Theoretical consideration and modeling of selfâ€healing polymers. Journal of Polymer Science, Part B: Polymer Physics, 2012, 50, 229-241.	2.1	67
29	Adaptable Interlocking Macromolecular Networks with Homogeneous Architecture Made from Immiscible Single Networks. Macromolecules, 2020, 53, 584-593.	4.8	67
30	Preparation of Binary Conductive Polymer Composites with Very Low Percolation Threshold by Latex Blending. Macromolecular Rapid Communications, 2003, 24, 889-893.	3.9	61
31	Thermally conductive glass fiber reinforced epoxy composites with intrinsic self-healing capability. Advanced Composites and Hybrid Materials, 2021, 4, 1048-1058.	21.1	60
32	Thermo-molded self-healing thermoplastics containing multilayer microreactors. Journal of Materials Chemistry A, 2013, 1, 7191.	10.3	51
33	Selfâ€healing polymeric materials towards nonâ€structural recovery of functional properties. Polymer International, 2014, 63, 1741-1749.	3.1	49
34	Preparation of graphene oxide and polymer-like quantum dots and their one- and two-photon induced fluorescence properties. Physical Chemistry Chemical Physics, 2016, 18, 4800-4806.	2.8	49
35	Role of reactive compatibilization in preparation of nanosilica/polypropylene composites. Polymer Engineering and Science, 2007, 47, 499-509.	3.1	43
36	Synergistic effect of dual targeting vaccine adjuvant with aminated Î²-glucan and CpG-oligodeoxynucleotides for both humoral and cellular immune responses. Acta Biomaterialia, 2018, 78, 211-223.	8.3	42

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37	Irradiation-induced surface graft polymerization onto calcium carbonate nanoparticles and its toughening effects on polypropylene composites. Polymer Engineering and Science, 2005, 45, 529-538.	3.1	41
38	Reversibly Interlocked Macromolecule Networks with Enhanced Mechanical Properties and Wide pH Range of Underwater Self-Healability. ACS Applied Materials & Interfaces, 2020, 12, 27614-27624.	8.0	41
39	Interfacial interaction in Ag/polymer nanocomposite films. Journal of Materials Science Letters, 2001, 20, 1473-1476.	0.5	40
40	A Facile Approach Toward Scalable Fabrication of Reversible Shapeâ€Memory Polymers with Bonded Elastomer Microphases as Internal Stress Provider. Macromolecular Rapid Communications, 2017, 38, 1700124.	3.9	40
41	Self-Healing of Polymer in Acidic Water toward Strength Restoration through the Synergistic Effect of Hydrophilic and Hydrophobic Interactions. ACS Applied Materials & Interfaces, 2017, 9, 37300-37309.	8.0	39
42	Effect of Drawing Induced Dispersion of Nano-Silica on Performance Improvement of Poly(propylene)-Based Nanocomposites. Macromolecular Rapid Communications, 2006, 27, 581-585.	3.9	38
43	A Novel Self-Healing Epoxy System with Microencapsulated Epoxy and Imidazole Curing Agent. Advanced Composites Letters, 2007, 16, 096369350701600.	1.3	37
44	Polypropylene composites filled with in-situ grafting polymerization modified nano-silica particles. Journal of Materials Science, 2004, 39, 3475-3478.	3.7	36
45	A facile heteroaggregate-template route to hollow magnetic mesoporous spheres with tunable shell structures. Journal of Materials Chemistry, 2011, 21, 9020.	6.7	36
46	A Very Simple Strategy for Preparing External Stressâ€Free Twoâ€Way Shape Memory Polymers by Making Use of Hydrogen Bonds. Macromolecular Rapid Communications, 2018, 39, e1700714.	3.9	33
47	Topological rearrangement-derived homogeneous polymer networks capable of reversibly interlocking: From phantom to reality and beyond. Materials Today, 2020, 33, 45-55.	14.2	33
48	Electrical Response to Organic Vapor of Conductive Composites from Amorphous Polymer/Carbon Black Prepared by Polymerization Filling. Macromolecular Materials and Engineering, 2003, 288, 103-107.	3.6	32
49	A thermally remendable and reprocessable crosslinked methyl methacrylate polymer based on oxygen insensitive dynamic reversible Câ€“ON bonds. RSC Advances, 2016, 6, 6350-6357.	3.6	32
50	Moisture Battery Formed by Direct Contact of Magnesium with Foamed Polyaniline. Angewandte Chemie - International Edition, 2016, 55, 1805-1809.	13.8	31
51	A novel sensor for organic solvent vapors based on conductive amorphous polymer composites: carbon black/poly(butyl methacrylate). Polymer Bulletin, 2003, 50, 99-106.	3.3	30
52	All-plant fiber composites. II: Water absorption behavior and biodegradability of unidirectional sisal fiber reinforced benzylated wood. Polymer Composites, 2003, 24, 367-379.	4.6	30
53	Surface grafting onto SiC nanoparticles with glycidyl methacrylate in emulsion. Journal of Polymer Science Part A, 2004, 42, 3842-3852.	2.3	30
54	Continuous High-Content Keratin Fibers with Balanced Properties Derived from Wool Waste. ACS Sustainable Chemistry and Engineering, 2020, 8, 18148-18156.	6.7	30

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55	Effects of reactive compatibilization on the performance of nano-silica filled polypropylene composites. Journal of Materials Science, 2006, 41, 5767-5770.	3.7	29
56	Repeatedly Intrinsic Self-Healing of Millimeter-Scale Wounds in Polymer through Rapid Volume Expansion Aided Hostâ€“Guest Interaction. ACS Applied Materials & Interfaces, 2020, 12, 22534-22542.	8.0	29
57	Dynamically Cross-Linked Polymeric Binder-Made Durable Silicon Anode of a Wide Operating Temperature Li-Ion Battery. ACS Applied Materials & Interfaces, 2021, 13, 28737-28748.	8.0	28
58	Adaptable Reversibly Interlocked Networks from Immiscible Polymers Enhanced by Hierarchy-Induced Multilevel Energy Consumption Mechanisms. Macromolecules, 2021, 54, 4802-4815.	4.8	27
59	External Stress-Free Reversible Multiple Shape Memory Polymers. ACS Applied Materials & Interfaces, 2019, 11, 31346-31355.	8.0	25
60	Improvement of conductive network quality in carbon black-filled polymer blends. Journal of Applied Polymer Science, 2002, 84, 2768-2775.	2.6	24
61	Interfacial interaction in sisal/epoxy composites and its influence on impact performance. Polymer Composites, 2002, 23, 182-192.	4.6	24
62	Tribological behavior of epoxy composites containing reactive SiC nanoparticles. Journal of Applied Polymer Science, 2007, 104, 2608-2619.	2.6	24
63	Thermo-moldable self-healing commodity plastics with heat resisting and oxygen-insensitive healant capable of room temperature redox cationic polymerization. Journal of Materials Chemistry A, 2015, 3, 1858-1862.	10.3	24
64	Imparting External Stress-Free Two-Way Shape Memory Effect to Commodity Polyolefins by Manipulation of Their Hierarchical Structures. ACS Macro Letters, 2019, 8, 1141-1146.	4.8	24
65	Covalently Connecting Nanoparticles with Epoxy Matrix and its Effect on the Improvement of Tribological Performance of the Composites. Polymers and Polymer Composites, 2005, 13, 245-252.	1.9	23
66	Highly thermally conductive flexible copper clad laminates based on sea-island structured boron nitride/polyimide composites. Composites Science and Technology, 2022, 230, 109087.	7.8	23
67	Improvement of notch toughness of low nano-SiO2 filled polypropylene composites. Journal of Materials Science Letters, 2003, 22, 1027-1030.	0.5	22
68	The Preparation of Self-Reinforced Sisal Fiber Composites. Polymers and Polymer Composites, 2004, 12, 297-308.	1.9	20
69	Selfâ€healable and thiolâ€“ene UVâ€curable waterborne polyurethane for anticorrosion coating. Journal of Applied Polymer Science, 2019, 136, 47700.	2.6	20
70	Surface modification of magnetic metal nanoparticles and its influence on the performance of polymer composites. Journal of Polymer Science, Part B: Polymer Physics, 2003, 41, 1070-1084.	2.1	19
71	Tailored modular assembly derived self-healing polythioureas with largely tunable properties covering plastics, elastomers and fibers. Nature Communications, 2022, 13, 2633.	12.8	19
72	Natural Vegetable Fibre / Plasticised Natural Vegetable Fibre - a Candidate for Low Cost and Fully Biodegradable Composite. Advanced Composites Letters, 1999, 8, 096369359900800.	1.3	18

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73	Carbon black filled poly(2-ethylhexyl methacrylate) as a candidate for gas sensing material. Journal of Materials Science Letters, 2003, 22, 1057-1059.	0.5	18
74	Plant oilâ€based biofoam composites with balanced performance. Polymer International, 2009, 58, 403-411.	3.1	18
75	Graft Polymerization of Vinyl Monomers onto Nanosized Silicon Carbide Particles. Polymers and Polymer Composites, 2002, 10, 531-540.	1.9	16
76	Performance stabilization of conductive polymer composites. Journal of Applied Polymer Science, 2003, 89, 2438-2445.	2.6	16
77	Fabrication of Nanoparticle/Polymer Composites by In Situ Bubble-Stretching and Reactive Compatibilization. Macromolecular Chemistry and Physics, 2006, 207, 2093-2102.	2.2	16
78	A facile and scalable process to synthesize flexible lithium ion conductive glass-ceramic fibers. RSC Advances, 2019, 9, 4157-4161.	3.6	16
79	Carbon black-filled polyolefins as positive temperature coefficient materials: The effect ofin situ grafting during melt compounding. Journal of Polymer Science, Part B: Polymer Physics, 2003, 41, 127-134.	2.1	15
80	Gas Sensing Materials from Carbon Black/Poly(Methyl Methacrylate) Composites. Polymers and Polymer Composites, 2003, 11, 291-299.	1.9	15
81	Implementation of the Pulley Effect of Polyrotaxane in Transparent Bulk Polymer for Simultaneous Strengthening and Toughening. Macromolecular Rapid Communications, 2020, 41, e2000371.	3.9	15
82	Viscoelasticity and flow behavior of irradiation grafted nano-inorganic particle filled polypropylene composites in the melt state. Science and Technology of Advanced Materials, 2002, 3, 111-116.	6.1	14
83	Mechanical Properties of Nanocomposites from Ball Milling Grafted Nano-Silica/Polypropylene Block Copolymer. Polymers and Polymer Composites, 2004, 12, 257-268.	1.9	14
84	A Comparative Study of Nanosilica/Poly(propylene) Composites Prepared by Reactive Compatibilization. Macromolecular Chemistry and Physics, 2008, 209, 1826-1835.	2.2	14
85	Interfacial effects in short sisal fiber/maleated castor oil foam composites. Composite Interfaces, 2008, 15, 95-110.	2.3	14
86	All-Plant Fibre Composites: Self Reinforced Composites Based on Sisal. Advanced Composites Letters, 2001, 10, 096369350101000.	1.3	13
87	Thermal stability of frictional surface layer and wear debris of epoxy nanocomposites in relation to the mechanism of tribological performance improvement. Journal of Materials Science, 2004, 39, 3817-3820.	3.7	12
88	Effect of Soft Segments of Waterborne Polyurethane on Organic Vapor Sensitivity of Carbon Black Filled Waterborne Polyurethane Composites. Polymer Journal, 2006, 38, 799-806.	2.7	12
89	Enhancement of intrinsic thermal conductivity of liquid crystalline epoxy through the strategy of interlocked polymer networks. Materials Chemistry Frontiers, 2022, 6, 1137-1149.	5.9	12
90	Heat treatment-induced multiple melting behavior of carbon black-filled polymer blends in relation to the conductive performance stabilization. Journal of Applied Polymer Science, 2001, 80, 1267-1273.	2.6	11

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91	Effects of Processing on Electric Response of Carbon Black Filled Poly(methyl methacrylate) Composites against Organic Solvent Vapors. Polymer Journal, 2003, 35, 1003-1008.	2.7	11
92	Deformation Characteristics of Nano-SiO₂ Filled Polypropylene Composites. Polymers and Polymer Composites, 2003, 11, 559-562.	1.9	11
93	Preparation of bifunctionalized phenylene-bridged periodic mesoporous organosilica for solid-phase microextraction. RSC Advances, 2014, 4, 168-174.	3.6	11
94	Moisture Battery Formed by Direct Contact of Magnesium with Foamed Polyaniline. Angewandte Chemie, 2016, 128, 1837-1841.	2.0	11
95	Improving creep resistance while maintaining reversibility of covalent adaptive networks via constructing reversibly interlocked polymer networks. Materials Today Chemistry, 2022, 23, 100687.	3.5	11
96	Controllable Depolymerization and Recovery of Interlocked Covalent Adaptable Networks via Cascading Reactions of the Built-In Reversible Bonds. Macromolecules, 2022, 55, 262-269.	4.8	11
97	Polyurethane/Polyolefin Blends: Morphology, Compatibilization and Mechanical Properties. Polymers and Polymer Composites, 2006, 14, 1-11.	1.9	10
98	Analysis of gas sensing behaviors of carbon black/waterborne polyurethane composites in low concentration organic vapors. Journal of Materials Science, 2007, 42, 4575-4580.	3.7	10
99	The critical role of inter-component hydrogen bonds in the formation of reversibly interlocked polymer networks. Materials Chemistry Frontiers, 2021, 6, 52-62.	5.9	10
100	Time dependent percolation of carbon black filled polymer composites in response to solvent vapor. Journal of Materials Science, 2005, 40, 2065-2068.	3.7	9
101	Grafting of Poly(glycidyl methacrylate) onto Nano-SiO2 and Its Reactivity in Polymers. Polymer Journal, 2005, 37, 677-685.	2.7	9
102	Improvement of multiple-responsive shape memory effects of wool through increasing the content of disulfide bonds. Polymer, 2020, 188, 122130.	3.8	9
103	Self-healing epoxy with a fast and stable extrinsic healing system based on BF3â€“amine complex. RSC Advances, 2016, 6, 100796-100803.	3.6	8
104	Photo-induced topological self-reorganization and self-growth of polymer based on dynamic reversible aromatic pinacol units. Polymer, 2020, 192, 122299.	3.8	8
105	A novel strategy for producing highâ€performance continuous regenerated fibers with woolâ€like structure. SusMat, 2022, 2, 90-103.	14.9	7
106	Interfacial interaction in stainless steel fiber-filled polypropylene composites. Journal of Applied Polymer Science, 2000, 78, 2174-2179.	2.6	6
107	Thermally induced performance decay in conductive polymer composites. Polymer Composites, 2004, 25, 270-279.	4.6	6
108	In situ melt grafting in carbon black/polyolefin composites and its influence on conductive performance. Polymer International, 2004, 53, 944-950.	3.1	6

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109	Strategy of fabrication of controlled thermosetting gel based on soybean oil towards supercritical carbon dioxide foaming. Green Chemistry, 2014, 16, 1225-1235.	9.0	6
110	UVâ€Curable Polyurethane Elastomer with UVâ€Irradiation/Thermo Dualâ€Activated Selfâ€Healability. Macromolecular Materials and Engineering, 2022, 307, .	3.6	6
111	Mechanical enhancement mechanism of interlocked polymer networks. Materials Today Physics, 2022, 27, 100768.	6.0	6
112	Nanostructured Silver/Polystyrene Composite Film: Preparation and Ultrafast Third-Order Optical Nonlinearity. Polymers and Polymer Composites, 2002, 10, 291-298.	1.9	5
113	Enzyme degradability of benzylated sisal and its self-reinforced composites. Polymers for Advanced Technologies, 2003, 14, 676-685.	3.2	5
114	Performance Improvement of Nano-silica/Polypropylene Composites through in-situ Graft Modification of Nanoparticles during Melt Compounding. E-Polymers, 2007, 7, .	3.0	5
115	Surface functionalization of Si3N4 nanoparticles by graft polymerization of glycidyl methacrylate and styrene. Journal of Applied Polymer Science, 2006, 102, 992-999.	2.6	4
116	Localized compatibilization in immiscible blends of thermoplastic polyurethane and ethylene-octylene copolymer. Journal of Applied Polymer Science, 2007, 105, 1309-1315.	2.6	4
117	Self-Healing Polymers and Polymer Composites. , 0, , 29-71.		4
118	Electrical resistance response of poly(ethylene oxide)-based conductive composites to organic vapors: Effect of filler content, vapor species, and temperature. Journal of Applied Polymer Science, 2005, 98, 1517-1523.	2.6	3
119	Self-healing of thermally molded commodity plastics based on heat-resistant and anti-aging healing systems. RSC Advances, 2016, 6, 93410-93418.	3.6	3
120	Organic vapor sensibility of carbon black/polyethylene wax composites. Journal of Materials Science, 2004, 39, 5617-5620.	3.7	2
121	Highly Filled Nano-CdS/Polystyrene Nanocomposite Film with Self-Organization Behavior. Polymers and Polymer Composites, 2003, 11, 441-448.	1.9	1
122	Organic Vapour Sensor from Carbon Black Filled Amorphous Polymer Composite: Effects of Processing, Carbon Fibres and Irradiation. Polymers and Polymer Composites, 2005, 13, 213-221.	1.9	1
123	Preparation of a water soluble aminated Î²â€1,<scp>3â€D</scp>â€glucan for gene carrier: The in vitro study of the antiâ€inflammatory activity and transfection efficiency. Journal of Biomedical Materials Research - Part A, 2021, 109, 2506-2515.	4.0	1
124	Percolation and Gas Sensing Behaviours of Ternary Conductive Composites: Vapour-Grown Carbon Fibres/Carbon Black/Poly(Methyl Methacrylate). Advanced Composites Letters, 2003, 12, 096369350301200.	1.3	0