Self-healing polymeric materials: A review of recent dev

Progress in Polymer Science 33, 479-522 DOI: 10.1016/j.progpolymsci.2008.02.001

Citation Report

#	Article	IF	CITATIONS
1	Towards an understanding of thermally activated self-healing of an ionomer system during ballistic penetration. Acta Materialia, 2008, 56, 5737-5750.	7.9	245
2	Microencapsulation of Isocyanates for Self-Healing Polymers. Macromolecules, 2008, 41, 9650-9655.	4.8	412
4	Influência de colorantes na degradação termo-oxidativa do policarbonato. Revista Materia, 2009, 14, 1028-1038.	0.2	0
5	A Review of Computational Methods in Materials Science: Examples from Shock-Wave and Polymer Physics. International Journal of Molecular Sciences, 2009, 10, 5135-5216.	4.1	86
6	A Facile Strategy for Preparing Selfâ€Healing Polymer Composites by Incorporation of Cationic Catalystâ€Loaded Vegetable Fibers. Advanced Functional Materials, 2009, 19, 2289-2296.	14.9	77
8	Hollow Microtubes and Shells from Reactant‣oaded Polymer Beads. Angewandte Chemie - International Edition, 2009, 48, 8752-8756.	13.8	47
9	Polyethylene-co-methacrylic acid healing agents for mendable epoxy resins. Acta Materialia, 2009, 57, 4312-4320.	7.9	115
10	Lightâ€sensitive Intelligent Drug Delivery Systems ^{â€} . Photochemistry and Photobiology, 2009, 85, 848-860.	2.5	457
11	Self-healing epoxy based on cationic chain polymerization. Polymer, 2009, 50, 2967-2975.	3.8	133
12	Study of factors related to performance improvement of self-healing epoxy based on dual encapsulated healant. Polymer, 2009, 50, 5771-5781.	3.8	87
13	Stratification, stimuli-responsiveness, self-healing, and signaling in polymer networks. Progress in Polymer Science, 2009, 34, 679-687.	24.7	130
14	Polymer micelles from tadpole-shaped amphiphilic block-graft copolymers prepared by "Grafting-through―ATRP. Polymer Science - Series A, 2009, 51, 1210-1217.	1.0	9
15	Harnessing Labile Bonds between Nanogel Particles to Create Self-Healing Materials. ACS Nano, 2009, 3, 885-892.	14.6	80
16	Mechanically-Induced Chemical Changes in Polymeric Materials. Chemical Reviews, 2009, 109, 5755-5798.	47.7	1,130
17	A self-repairing, supramolecular polymer system: healability as a consequence of donor–acceptor π–π stacking interactions. Chemical Communications, 2009, , 6717.	4.1	475
18	A Thermoplastic/Thermoset Blend Exhibiting Thermal Mending and Reversible Adhesion. ACS Applied Materials & amp; Interfaces, 2009, 1, 612-620.	8.0	176
19	Thermally Self-Healing Polymeric Materials: The Next Step to Recycling Thermoset Polymers?. Macromolecules, 2009, 42, 1906-1912.	4.8	419
20	Investigating the Self Healing Capability of Bituminous Binders. Road Materials and Pavement Design, 2009, 10, 81-94.	4.0	81

#	Article	IF	CITATIONS
21	Robust polydopamine nano/microcapsules and their loading and release behavior. Chemical Communications, 2009, , 6789.	4.1	195
22	Analysing dielectric interphases in composites containing nano- and micro-particles. Journal Physics D: Applied Physics, 2009, 42, 064004.	2.8	17
23	A novel self-healing supramolecular polymer system. Faraday Discussions, 2009, 143, 251.	3.2	186
24	Reversibly Cross-Linking Amino-Polysiloxanes by Simple Triatomic Molecules. Facile Methods for Tuning Thermal, Rheological, and Adhesive Properties. Journal of Physical Chemistry C, 2009, 113, 11546-11553.	3.1	44
25	Self-Healing Polymers and Composites. Annual Review of Materials Research, 2010, 40, 179-211.	9.3	1,236
26	Surface Modification of Poly(urea-formaldehyde) Microcapsules and the Effect on the Epoxy Composites Performance. Journal of Macromolecular Science - Pure and Applied Chemistry, 2010, 47, 991-995.	2.2	19
27	Heat-induced crack healing in a perfluorocyclobutane-containing polymer. Macromolecular Research, 2010, 18, 212-214.	2.4	11
28	Selfâ€Healing Materials. Advanced Materials, 2010, 22, 5424-5430.	21.0	944
31	Autonomic Selfâ€Healing of Hydrogel Thin Films. Angewandte Chemie - International Edition, 2010, 49, 767-771.	13.8	166
32	Selfâ€Repair of a Oneâ€Dimensional Molecular Assembly in Mesoporous Silica by a Nanoscopic Template Effect. Angewandte Chemie - International Edition, 2010, 49, 4241-4245.	13.8	51
33	Preparation and Fluorescence Characteristics of Amidoâ€Functionalized Dualâ€Fluorescent Microspheres with Core/Shell Structure. Macromolecular Chemistry and Physics, 2010, 211, 2347-2355.	2.2	5
34	The world of smart healable materials. Progress in Polymer Science, 2010, 35, 223-251.	24.7	614
35	Stimuli-responsive molecular brushes. Progress in Polymer Science, 2010, 35, 24-44.	24.7	600
36	Thermo-responsive mending of polymers crosslinked by thermally reversible covalent bond: Polymers from bisfuranic terminated poly(ethylene adipate) and tris-maleimide. Polymer Degradation and Stability, 2010, 95, 826-829.	5.8	84
37	The effect of cluster plasticisation on the self healing behaviour of ionomers. Polymer, 2010, 51, 679-686.	3.8	115
38	The ROMP toolbox upgraded. Polymer, 2010, 51, 2927-2946.	3.8	452
39	A biomimic shape memory polymer based self-healing particulate composite. Polymer, 2010, 51, 6021-6029.	3.8	176
40	FTIR study of bonding between a thermoplastic healing agent and a mendable epoxy resin. Vibrational Spectroscopy, 2010, 52, 10-15.	2.2	106

#	Article	IF	CITATIONS
41	A review of recent research on mechanics of multifunctional composite materials and structures. Composite Structures, 2010, 92, 2793-2810.	5.8	927
42	Investigation of the self-healing properties of shape memory polyurethane coatings with the â€~odd random phase multisine' electrochemical impedance spectroscopy. Electrochimica Acta, 2010, 55, 6195-6203.	5.2	81
43	Cure behavior and mechanical properties of structural selfâ€healing epoxy resins. Journal of Polymer Science, Part B: Polymer Physics, 2010, 48, 2413-2423.	2.1	45
44	Autonomous damage initiated healing in a thermoâ€responsive ionomer. Polymer International, 2010, 59, 1031-1038.	3.1	32
45	Computational Analysis of the Structural Integrity of Self-Healing Composites. Materials Science Forum, 2010, 654-656, 2576-2578.	0.3	4
46	Advances in epoxy adhesives. , 2010, , 20-34.		5
48	Vascular structures for volumetric cooling and mechanical strength. Journal of Applied Physics, 2010, 107, 044901.	2.5	13
49	A Healable Supramolecular Polymer Blend Based on Aromatic Ï€â^'Ï€ Stacking and Hydrogen-Bonding Interactions. Journal of the American Chemical Society, 2010, 132, 12051-12058.	13.7	779
50	Smart "All Acrylate―ABA Triblock Copolymer Bearing Reactive Functionality via Atom Transfer Radical Polymerization (ATRP): Demonstration of a "Click Reaction―in Thermoreversible Property. Macromolecules, 2010, 43, 3193-3205.	4.8	134
51	Self-healing polymers and composites. International Materials Reviews, 2010, 55, 317-346.	19.3	215
52	Photo-Cross-Linkable Thermoresponsive Star Polymers Designed for Control of Cell-Surface Interactions. Biomacromolecules, 2010, 11, 2647-2652.	5.4	40
53	Using Nanoparticle-Filled Microcapsules for Site-Specific Healing of Damaged Substrates: Creating a "Repair-and-Go―System. ACS Nano, 2010, 4, 1115-1123.	14.6	52
54	Responsive Gels Based on a Dynamic Covalent Trithiocarbonate Cross-Linker. Macromolecules, 2010, 43, 4355-4361.	4.8	204
55	Healable polymeric materials: a tutorial review. Chemical Society Reviews, 2010, 39, 1973.	38.1	389
56	Self-healing and self-mendable polymers. Polymer Chemistry, 2010, 1, 978.	3.9	367
57	Self-repairing material systems―a dream or a reality?. Natural Science, 2010, 02, 873-901.	0.4	46
58	Designing green, self-healing coatings for metal protection. NPG Asia Materials, 2010, 2, 143-151.	7.9	190
59	Redox Responsive Behavior of Thiol/Disulfide-Functionalized Star Polymers Synthesized via Atom Transfer Radical Polymerization. Macromolecules, 2010, 43, 4133-4139.	4.8	159

#	Article	IF	CITATIONS
60	Covalent Cross-Linked Polymer Gels with Reversible Solâ^'Gel Transition and Self-Healing Properties. Macromolecules, 2010, 43, 1191-1194.	4.8	581
61	The effect of self-healing hollow fibres on the mechanical properties of polymer composites. Smart Materials and Structures, 2010, 19, 085021.	3.5	80
62	Photo-Plasticity in Thiol-ene Network Polymers - A Review. Macromolecular Symposia, 2010, 291-292, 50-65.	0.7	14
63	Development of Corrosion Protection Coatings for AA2024-T3 Using Micro-Encapsulated Inhibitors. ACS Symposium Series, 2010, , 165-189.	0.5	13
64	Use of the tapered double-cantilever beam geometry for fracture toughness measurements and its application to the quantification of self-healing. Journal of Strain Analysis for Engineering Design, 2011, 46, 167-186.	1.8	73
65	Self-Healing Materials Based on Disulfide Links. Macromolecules, 2011, 44, 2536-2541.	4.8	789
66	Linear/Network Poly(ε-caprolactone) Blends Exhibiting Shape Memory Assisted Self-Healing (SMASH). ACS Applied Materials & Interfaces, 2011, 3, 152-161.	8.0	346
67	Self-Healing of Polymers via Synchronous Covalent Bond Fission/Radical Recombination. Chemistry of Materials, 2011, 23, 5076-5081.	6.7	198
69	Diels–Alder "click―reactions: recent applications in polymer and material science. Polymer Chemistry, 2011, 2, 2133.	3.9	488
70	Tough and Self-Healing Hydrogels Formed via Hydrophobic Interactions. Macromolecules, 2011, 44, 4997-5005.	4.8	656
71	Mechanically Facilitated Retro [4 + 2] Cycloadditions. Journal of the American Chemical Society, 2011, 133, 7180-7189.	13.7	78
72	Reversible cross-linking of hydrophilic dynamic covalent polymers with radically exchangeable alkoxyamines in aqueous media. Polymer Chemistry, 2011, 2, 2021.	3.9	42
73	The formation of core cross-linked star polymer and nanogel assemblies facilitated by the formation of dynamic covalent imine bonds. Polymer Chemistry, 2011, 2, 2500.	3.9	78
74	Facile microencapsulation of HDI for self-healing anticorrosion coatings. Journal of Materials Chemistry, 2011, 21, 11123.	6.7	279
75	On the interplay between matter transport and structure formation at epoxy–hardener interfaces visualized by scanning Brillouin microscopy. Soft Matter, 2011, 7, 118-124.	2.7	11
76	Novel Thermoresponsive Polymers Tunable by pH. Macromolecules, 2011, 44, 1628-1634.	4.8	58
78	Self-Healing in Two-Dimensional Supramolecular Structures: Utilizing Thermodynamic Driving Forces. , 2011, , 116-141.		0
79	Using the dynamic bond to access macroscopically responsive structurally dynamic polymers. Nature Materials, 2011, 10, 14-27.	27.5	1,394

		CITATION REF	ORT	
#	Article		IF	CITATIONS
80	The self-healing composite anticorrosion coating. Physics Procedia, 2011, 18, 216-221.		1.2	22
81	Phenylboronate-diol crosslinked polymer gels with reversible sol-gel transition. Polymer, 2 4268-4276.	2011, 52,	3.8	51
82	A thermally-stable self-mending polymer networked by Diels–Alder cycloaddition. Polyı 6074-6079.	ner, 2011, 52,	3.8	110
83	Synthesis of durable microcapsules for self-healing anticorrosive coatings: A comparison methods. Progress in Organic Coatings, 2011, 70, 342-352.	of selected	3.9	128
84	A critical appraisal of the potential of self healing polymeric coatings. Progress in Organic 2011, 72, 211-221.	: Coatings,	3.9	227
85	Spatially resolved analysis of calcium–silica tubes in reverse chemical gardens. Colloids A: Physicochemical and Engineering Aspects, 2011, 389, 127-133.	and Surfaces	4.7	12
86	A comparison of the strength of autohesion of plasma treated amorphous and semiâ€ery films. Polymers for Advanced Technologies, 2011, 22, 2496-2502.	stalline PEEK	3.2	33
87	Controlling crosslinking in thermosets via chain transfer with monoterpenes. Journal of F Science Part A, 2011, 49, 3719-3727.	olymer	2.3	26
88	Azide/Alkyneâ€â€œClickâ€â€Reactions of Encapsulated Reagents: Toward Selfâ€Healing Macromolecular Rapid Communications, 2011, 32, 419-425.	; Materials.	3.9	119
90	Repeatable Photoinduced Selfâ€Healing of Covalently Crossâ€Linked Polymers through Trithiocarbonate Units. Angewandte Chemie - International Edition, 2011, 50, 1660-166	Reshuffling of 3.	13.8	488
91	Photoreactive Nanoparticles as Nanometric Building Blocks for the Generation of Selfâ€ Hydrogel Thin Films. Chemistry - A European Journal, 2011, 17, 12465-12475.	lealing	3.3	42
92	Compression Behavior of a Self-Healing Fibre Reinforced Epoxy Composite. Applied Mech Materials, 0, 55-57, 1281-1286.	anics and	0.2	1
93	A Smart Polymer Composite for Repeatedly Self-Healing Impact Damage in Fiber Reinford (FRP) Vessels. , 2011, , .	ed Polymer		0
95	Modeling the nanoscratching of self-healing materials. Journal of Chemical Physics, 2011	, 134, 084901.	3.0	13
96	Investigation on the thermal properties of new thermo-reversible networks based on poly	'(vinyl) Tj ETQq0 0 0 rgBT	lOyerlock 2.1	10 Tf 50 18
97	Self-Healing Materials Systems: Overview of Major Approaches and Recent Developed Te Advances in Materials Science and Engineering, 2012, 2012, 1-17.	chnologies.	1.8	126
98	Developing a Simple Damage Model for the Long-Term Durability of Acrylic Foam Structu Tape Subject to Sustained Wind Loading. Journal of Architectural Engineering, 2012, 18,	ral Glazing 214-222.	1.6	4
99	Photoinduced mendable network polymer from poly(butylene adipate) end-functionalize cinnamoyl groups. Polymer Journal, 2012, 44, 724-729.	d with	2.7	47

#	Article	IF	CITATIONS
100	Durability and Corrosion of Aluminium and Its Alloys: Overview, Property Space, Techniques and Developments. , 0, , .		29
103	Introduction to Active Smart Materials for Biomedical Applications. Nanomedicine and Nanotoxicology, 2012, , 1-27.	0.2	9
104	High strain rate deformation of layered nanocomposites. Nature Communications, 2012, 3, 1164.	12.8	153
105	Room temperature self-healing power of silicone elastomers having silver nanoparticles as crosslinkers. Chemical Communications, 2012, 48, 8255.	4.1	48
107	Hard Autonomous Selfâ€Healing Supramolecular Materials—A Contradiction in Terms?. Angewandte Chemie - International Edition, 2012, 51, 11942-11944.	13.8	72
108	Rheological modeling of the diffusion process and the interphase of symmetrical bilayers based on PVDF and PMMA with varying molecular weights. Rheologica Acta, 2012, 51, 691-711.	2.4	47
109	Probing and repairing damaged surfaces with nanoparticle-containing microcapsules. Nature Nanotechnology, 2012, 7, 87-90.	31.5	56
110	Mechanics and physics of hydrogels. Soft Matter, 2012, 8, 8006.	2.7	11
111	Doubly degradable dynamers: dynamic covalent polymers based on reversible imine connections and biodegradable polyester units. Green Chemistry, 2012, 14, 2907.	9.0	60
112	Self-healing of fractured one-dimensional brittle nanostructures. Europhysics Letters, 2012, 98, 16010.	2.0	3
113	Finite element simulation of swelling-induced crack healing in gels. Soft Matter, 2012, 8, 8107.	2.7	14
114	Effects of alkyl chain length, solvent and tandem Claisen rearrangement on two-dimensional structures of noncyclic isobutenyl compounds: scanning tunnelling microscopic study. Organic and Biomolecular Chemistry, 2012, 10, 8087.	2.8	18
115	Self-Healing Polymer Films Based on Thiol–Disulfide Exchange Reactions and Self-Healing Kinetics Measured Using Atomic Force Microscopy. Macromolecules, 2012, 45, 142-149.	4.8	407
116	Multifunctional Self-Healing and Self-Reporting Polymer Composite with Integrated Conductive Microwire Networks. ACS Applied Materials & amp; Interfaces, 2012, 4, 3759-3764.	8.0	27
117	Modified Rheokinetic Technique to Enhance the Understanding of Microcapsule-Based Self-Healing Polymers. ACS Applied Materials & Interfaces, 2012, 4, 1831-1837.	8.0	16
118	Performance of Mechanochemically Activated Catalysts Is Enhanced by Suppression of the Thermal Effects of Ultrasound. ACS Macro Letters, 2012, 1, 1012-1015.	4.8	34
119	Mechanical Activation of a Latent Olefin Metathesis Catalyst and Persistence of its Active Species in ROMP. Organometallics, 2012, 31, 2476-2481.	2.3	94
120	Controlled Radical Polymerization: State-of-the-Art in 2011. ACS Symposium Series, 2012, , 1-13.	0.5	6

#	ARTICLE	IF	CITATIONS
121	Schiff's base as a stimuli-responsive linker in polymer chemistry. Polymer Chemistry, 2012, 3, 3045.	3.9	302
122	Self-healing coatings containing microcapsule. Applied Surface Science, 2012, 258, 1915-1918.	6.1	105
123	Composites Part A: Applied Science and Manufacturing, 2012, 43, 512-518.	7.6	97
124	Applied Science and Manufacturing, 2012, 43, 1073-1080. Self-healing of delamination cracks in mendable epoxy matrix laminates using	7.6	24
125	poly[ethylene-co-(methacrylic acid)] thermoplastic. Composites Part A: Applied Science and Manufacturing, 2012, 43, 1301-1307.	7.6	88
126	Toughening and self-healing of epoxy matrix laminates using mendable polymer stitching. Composites Science and Technology, 2012, 72, 1396-1401.	7.8	66
127	Extreme wettability and tunable adhesion: biomimicking beyond nature?. Soft Matter, 2012, 8, 2070-2086.	2.7	217
128	Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2012, 370, 2848-2865.	3.4	31
129	Microcapsule-based self-healing anticorrosive coatings: Capsule size, coating formulation, and exposure testing. Progress in Organic Coatings, 2012, 75, 309-318.	3.9	119
130	Self-healing in fractured GaAs nanowires. Acta Materialia, 2012, 60, 5593-5600.	7.9	9
131	A micromechanics based analysis of hollow fiber composites using DQEM. Composites Part B: Engineering, 2012, 43, 2921-2929.	12.0	14
132	The effect of carbon nanofibres on self-healing epoxy/poly(Îμ-caprolactone) blends. Composites Science and Technology, 2012, 72, 1952-1959.	7.8	25
133	Synthesis of organic silane microcapsules for self-healing corrosion resistant polymer coatings. Corrosion Science, 2012, 65, 561-566.	6.6	152
134	Structure optimization of self-healing hydrogels formed via hydrophobic interactions. Polymer, 2012, 53, 5513-5522.	3.8	166
135	The Chemistry of Structural Adhesives: Epoxy, Urethane, and Acrylic Adhesives. , 2012, , 549-572.		2
136	REMOVED: Dynamic Interactive Membranes with Pressure–driven Tunable Porosity and Self–repairing Ability. Procedia Engineering, 2012, 44, 216-219.	1.2	0
138	Self-healing ability and adhesion strength of capsule embedded coatings—Micro and nano sized capsules containing linseed oil. Progress in Organic Coatings, 2012, 75, 292-300.	3.9	128
139	Activation and deactivation of self-healing in supramolecular rubbers. Soft Matter, 2012, 8, 1681-1687.	2.7	93

#	ARTICLE	IF	CITATIONS
140	Damage healing ability of a shape-memory-polymer-based particulate composite with small	3.5	80
110	thermoplastic contents. Smart Materials and Structures, 2012, 21, 025011.		
141	Use of FTIR Analysis to Control the Self-Healing Functionality of Epoxy Resins. , 0, , .		3
142	Theoretical consideration and modeling of selfâ€healing polymers. Journal of Polymer Science, Part B: Polymer Physics, 2012, 50, 229-241.	2.1	67
143	Autonomic healing and welding by interdiffusion of dangling chains in a weak gel. Polymer International, 2012, 61, 9-16.	3.1	21
144	Synthesis and clustering of supramolecular "graft―polymers. Journal of Polymer Science Part A, 2012, 50, 4494-4506.	2.3	21
145	Bioinspired, mechanical, deterministic fractal model for hierarchical suture joints. Physical Review E, 2012, 85, 031901.	2.1	90
146	Selfâ€Healing Rubbers Based on NBR Blends with Hyperbranched Polyethylenimines. Macromolecular Materials and Engineering, 2012, 297, 411-419.	3.6	48
147	Stimuli-responsive supramolecular polymeric materials. Chemical Society Reviews, 2012, 41, 6042.	38.1	1,440
148	Selfâ€Healing of Covalently Crossâ€Linked Polymers by Reshuffling Thiuram Disulfide Moieties in Air under Visible Light. Advanced Materials, 2012, 24, 3975-3980.	21.0	585
150	Dynamic Interactive Membranes with Pressureâ€Driven Tunable Porosity and Selfâ€Healing Ability. Angewandte Chemie - International Edition, 2012, 51, 7166-7170.	13.8	52
151	Enzyme-responsive polymeric assemblies, nanoparticles and hydrogels. Chemical Society Reviews, 2012, 41, 5933.	38.1	615
152	Autocatalysis in the Room Temperature Copper(I)-Catalyzed Alkyne–Azide "Click―Cycloaddition of Multivalent Poly(acrylate)s and Poly(isobutylene)s. Macromolecules, 2012, 45, 3335-3345.	4.8	65
153	Design and synthesis of self-healing polymers. Science China Chemistry, 2012, 55, 648-676.	8.2	60
154	Improved active anticorrosion coatings using layer-by-layer assembled ZnO nanocontainers with benzotriazole. Chemical Engineering Journal, 2012, 189-190, 464-472.	12.7	136
155	Thermally activated healing in a mendable resin using a non woven EMAA fabric. Composites Science and Technology, 2012, 72, 453-460.	7.8	44
156	Confirmation of the healing mechanism in a mendable EMAA–epoxy resin. European Polymer Journal, 2012, 48, 524-531.	5.4	74
157	Investigation of the resistance welding of multilayers aluminum-coated polymer complexes used as envelopes of vacuum insulation panels. Materials & Design, 2012, 36, 546-556.	5.1	11
158	Micromechanical behavior of self-healing epoxy and hardener-loaded microcapsules by nanoindentation. Materials Letters, 2012, 76, 62-65.	2.6	69

#	Article	IF	CITATIONS
159	Development of optimized autonomous self-healing systems for epoxy materials based on maleimide chemistry. Polymer, 2012, 53, 2320-2326.	3.8	76
160	Current Trends in the Field of Selfâ€Healing Materials. Macromolecular Chemistry and Physics, 2012, 213, 131-143.	2.2	256
161	Facile Synthesis of Supramolecular Ionic Polymers That Combine Unique Rheological, Ionic Conductivity, and Selfâ€Healing Properties. Macromolecular Rapid Communications, 2012, 33, 314-318.	3.9	67
162	Self-healing of delamination fatigue cracks in carbon fibre–epoxy laminate using mendable thermoplastic. Journal of Materials Science, 2012, 47, 4449-4456.	3.7	60
163	Investigating the self healing process on coated steel by SVET and EIS techniques. Journal of Applied Polymer Science, 2013, 127, 740-747.	2.6	16
164	Evaluation of the corrosion inhibition effect of micro/nanocapsulated polymeric coatings: a comparative study by use of EIS and Tafel experiments and the area under the Bode plot. Research on Chemical Intermediates, 2013, 39, 2049-2062.	2.7	27
165	Synthesis and characterization of linear self-healing polyurethane based on thermally reversible Diels–Alder reaction. RSC Advances, 2013, 3, 15475.	3.6	147
166	Repeatable self-healing of a microcapsule-type protective coating. Polymer Chemistry, 2013, 4, 4940.	3.9	81
167	Phenomenological modelling of self-healing polymers based on integrated healing agents. Computational Mechanics, 2013, 52, 681-692.	4.0	43
168	A self-healing particulate composite reinforced with strain hardened short shape memory polymer fibers. Polymer, 2013, 54, 5075-5086.	3.8	93
169	Self-healing polymeric materials. Chemical Society Reviews, 2013, 42, 7446.	38.1	1,152
170	Kinetic study of Diels–Alder reaction involving in maleimide–furan compounds and linear polyurethane. Polymer Bulletin, 2013, 70, 2319-2335.	3.3	78
171	A self-healing supramolecular polymer gel with stimuli-responsiveness constructed by crown ether based molecular recognition. Polymer Chemistry, 2013, 4, 3312.	3.9	129
172	Recent progress in interfacial toughening and damage selfâ€healing of polymer composites based on electrospun and solutionâ€blown nanofibers: An overview. Journal of Applied Polymer Science, 2013, 130, 2225-2237.	2.6	79
173	Biomimetic Modular Polymer with Tough and Stress Sensing Properties. Macromolecules, 2013, 46, 6566-6574.	4.8	96
174	A self-healing polymer network based on reversible covalent bonding. Reactive and Functional Polymers, 2013, 73, 413-420.	4.1	137
175	Effects of dual component microcapsules of resin and curing agent on the self-healing efficiency of epoxy. Composites Part B: Engineering, 2013, 55, 79-85.	12.0	124
176	Effects of processing conditions of poly(methylmethacrylate) encapsulated liquid curing agent on the properties of self-healing composites. Composites Part B: Engineering, 2013, 49, 6-15.	12.0	122

#	Article	IF	Citations
177	Effect of mendable polymer stitch density on the toughening and healing of delamination cracks in carbon–epoxy laminates. Composites Part A: Applied Science and Manufacturing, 2013, 50, 22-30.	7.6	36
178	Effect of spacer chemistry on the formation and properties of linear reversible polymers. Journal of Polymer Science Part A, 2013, 51, 5056-5066.	2.3	11
179	FE2 multiscale in linear elasticity based on parametrized microscale models using proper generalized decomposition. Computer Methods in Applied Mechanics and Engineering, 2013, 257, 183-202.	6.6	36
180	Development of a polystyrene sulfonate/silver nanocomposite with self-healing properties for biomaterial applications. Comptes Rendus Chimie, 2013, 16, 550-556.	0.5	22
181	Harnessing Interfacially-Active Nanorods to Regenerate Severed Polymer Gels. Nano Letters, 2013, 13, 6269-6274.	9.1	75
182	Room Temperature Self-Healing Thermoset Based on the Diels–Alder Reaction. ACS Applied Materials & Interfaces, 2013, 5, 12425-12431.	8.0	133
183	Improved Self-Healing of Polyethylene/Carbon Black Nanocomposites by Their Shape Memory Effect. Journal of Physical Chemistry B, 2013, 117, 1467-1474.	2.6	75
184	Polybenzoxazine Precursors As Self-Healing Agents for Polysulfones. Macromolecules, 2013, 46, 8773-8778.	4.8	73
185	Self-Healing of Unentangled Polymer Networks with Reversible Bonds. Macromolecules, 2013, 46, 7525-7541.	4.8	302
186	A review on potential applications of carbon nanotubes in marine current turbines. Renewable and Sustainable Energy Reviews, 2013, 28, 331-339.	16.4	39
187	Optimization of smart self-healing coatings based on micro/nanocapsules in heavy metals emission inhibition. Progress in Organic Coatings, 2013, 76, 1006-1015.	3.9	35
188	Progressive Macromolecular Selfâ€Assembly: From Biomimetic Chemistry to Bioâ€Inspired Materials. Advanced Materials, 2013, 25, 5215-5256.	21.0	210
189	Nanoparticles assembly-induced special wettability for bio-inspired materials. Particuology, 2013, 11, 361-370.	3.6	22
190	Polyacryl–nanoclay composite for anticorrosion application. Progress in Organic Coatings, 2013, 76, 1471-1476.	3.9	13
191	Constitutive modeling of the rate-dependent resilient and dissipative large deformation behavior of a segmented copolymer polyurea. Soft Matter, 2013, 9, 6319.	2.7	48
192	Etched glass bubbles as robust micro-containers for self-healing materials. Journal of Materials Chemistry A, 2013, 1, 12715-12720.	10.3	45
193	Self-healing hyperbranched poly(aroyltriazole)s. Scientific Reports, 2013, 3, .	3.3	61
194	Electrospinning coreâ€shell nanofibers for interfacial toughening and selfâ€healing of carbonâ€fiber/epoxy composites. Journal of Applied Polymer Science, 2013, 129, 1383-1393.	2.6	152

#	Article	IF	CITATIONS
195	Selfâ€Healing Polymers via Supramolecular Forces. Macromolecular Rapid Communications, 2013, 34, 203-220.	3.9	508
196	Understanding the process of healing of thermoreversible covalent adaptable networks. Polymer Chemistry, 2013, 4, 4974-4979.	3.9	36
197	Sunlight-Induced Self-Healing of a Microcapsule-Type Protective Coating. ACS Applied Materials & Interfaces, 2013, 5, 1378-1384.	8.0	170
198	Indentation damage and crack repair in human enamel. Journal of the Mechanical Behavior of Biomedical Materials, 2013, 21, 178-184.	3.1	23
199	Heterogeneity, Segmental and Hydrogen Bond Dynamics, and Aging of Supramolecular Self-Healing Rubber. Macromolecules, 2013, 46, 1841-1850.	4.8	89
200	Optically healable polymers. Chemical Society Reviews, 2013, 42, 7278.	38.1	162
201	Selfâ€Healing Stretchable Wires for Reconfigurable Circuit Wiring and 3D Microfluidics. Advanced Materials, 2013, 25, 1589-1592.	21.0	385
202	Chemistry of Crosslinking Processes for Selfâ€Healing Polymers. Macromolecular Rapid Communications, 2013, 34, 290-309.	3.9	258
203	Unconventional microfluidics: expanding the discipline. Lab on A Chip, 2013, 13, 1457.	6.0	14
204	Single-ion BAB triblock copolymers as highly efficient electrolytes for lithium-metal batteries. Nature Materials, 2013, 12, 452-457.	27.5	1,194
205	Effect of strain hardening of shape memory polymer fibers on healing efficiency of thermosetting polymer composites. Polymer, 2013, 54, 920-928.	3.8	123
206	Healable Supramolecular Polymeric Materials. RSC Polymer Chemistry Series, 2013, , 92-125.	0.2	3
207	Thermodynamics of Self-Healing in Polymeric Materials. RSC Polymer Chemistry Series, 2013, , 126-148.	0.2	9
208	Mechanocatalysis: forcing latent catalysts into action. Polymer Chemistry, 2013, 4, 4846.	3.9	141
209	Comparison of self-healing ionomer to aluminium-alloy bumpers for protecting spacecraft equipment from space debris impacts. Advances in Space Research, 2013, 51, 930-940.	2.6	37
210	Multichannel and Repeatable Selfâ€Healing of Mechanical Enhanced Grapheneâ€Thermoplastic Polyurethane Composites. Advanced Materials, 2013, 25, 2224-2228.	21.0	280
211	Statistical analysis of the self-healing epoxy-loaded microcapsules across their synthesis. Materials Letters, 2013, 94, 79-82.	2.6	17
212	Healing of carbon fibre–epoxy composites using thermoplastic additives. Polymer Chemistry, 2013, 4, 5007.	3.9	67

#	Article	IF	CITATIONS
218	Healable supramolecular polymers. Polymer Chemistry, 2013, 4, 4860.	3.9	138
219	The role of maleimide structure in the healing of furan-functionalized epoxy–amine thermosets. Polymer Chemistry, 2013, 4, 5000.	3.9	41
220	Ultrasonic activation of mendable polymer for self-healing carbon–epoxy laminates. Composites Part B: Engineering, 2013, 45, 1031-1039.	12.0	41
221	Healing of carbon fibre–epoxy composite T-joints using mendable polymer fibre stitching. Composites Part B: Engineering, 2013, 45, 1499-1507.	12.0	50
222	Self-healing biodegradable poly(urea-urethane) elastomers based on hydrogen bonding interactions. Chinese Journal of Polymer Science (English Edition), 2013, 31, 251-262.	3.8	20
223	Adding Autonomic Healing Capabilities to Polyethylene Oxide. Advances in Polymer Technology, 2013, 32, .	1.7	10
224	Safety Assessment of Cold Welding Defect in Electro-Fusion Joint of Polyethylene Pipe. Journal of Pressure Vessel Technology, Transactions of the ASME, 2013, 135, .	0.6	1
225	Triggered and self-healing systems using nanostructured materials. Nanotechnology Reviews, 2013, 2, 699-723.	5.8	11
226	Piezo-driven self-healing by electrochemical phenomena. Journal of Intelligent Material Systems and Structures, 2013, 24, 441-453.	2.5	10
227	Self-Healing of Ionomeric Polymers with Carbon Fibers from Medium-Velocity Impact and Resistive Heating. Smart Materials Research, 2013, 2013, 1-12.	0.5	13
228	A Mechanism Design of Friction and Wear Test Based on Liquid Medium. Advanced Materials Research, 0, 703, 212-216.	0.3	0
229	Light-Sensitive Polymeric Nanoparticles Based on Photo-Cleavable Chromophores. Springer Theses, 2013, , .	0.1	9
230	Self-Healing Ability of Smart Coating for Anticorrosion of Reinforcing Steel. Applied Mechanics and Materials, 0, 357-360, 680-683.	0.2	2
231	Nano at nineteen. , 2013, , .		1
232	Selfâ€Healing Dynamic Polymeric Systems. Israel Journal of Chemistry, 2013, 53, 53-60.	2.3	13
233	Rateâ€dependent selfâ€healing behavior of an ethyleneâ€ <i>co</i> â€methacrylic acid ionomer under highâ€energy impact conditions. Journal of Applied Polymer Science, 2013, 130, 1949-1958.	2.6	41
234	The Trisâ€Urea Motif and Its Incorporation into Polydimethylsiloxaneâ€Based Supramolecular Materials Presenting Selfâ€Healing Features. Chemistry - A European Journal, 2013, 19, 8814-8820.	3.3	52
235	A Healable, Semitransparent Silver Nanowireâ€Polymer Composite Conductor. Advanced Materials, 2013, 25, 4186-4191.	21.0	182

#	Article	IF	CITATIONS
236	Active Anti-erosion Protection Strategy in Tamarisk (Tamarix aphylla). Scientific Reports, 2013, 3, 3429.	3.3	23
237	Investigations of Self-Healing Property of Chitosan-Reinforced Epoxy Dye Composite Coatings. Journal of Materials, 2013, 2013, 1-7.	0.1	11
238	Multifunctional Thermally Remendable Nanocomposites. Journal of Composites, 2014, 2014, 1-12.	0.8	5
239	Preparação e caracterização de microcápsulas de poli (ureia-formaldeÃdo) preenchidas com diciclopentadieno. Revista Materia, 2014, 19, 266-273.	0.2	4
241	Designing biomimetic reactive polymer gels. Materials Today, 2014, 17, 486-493.	14.2	7
243	Solid state self-healing system: Effects of using PDGEBA, PVC and PVA as linear healing agents. , 2014, , .		0
244	A novel combination of DLS-optical microrheology and low frequency Raman spectroscopy to reveal underlying biopolymer self-assembly and gelation mechanisms. Journal of Chemical Physics, 2014, 141, 234201.	3.0	12
245	Self-replenishing ability of cross-linked low surface energy polymer films investigated by a complementary experimental-simulation approach. Journal of Chemical Physics, 2014, 140, 124902.	3.0	15
246	Facile Phaseâ€Separation Approach to Encapsulate Functionalized Polymers in Core–Shell Nanoparticles. Macromolecular Chemistry and Physics, 2014, 215, 198-204.	2.2	14
247	Strain rate-induced phase transitions in an impact-hardening polymer composite. Applied Physics Letters, 2014, 104, .	3.3	50
248	Preparation of supramolecular thermally repairable elastomer by crosslinking of maleated polyethyleneâ€octene elastomer with 3â€aminoâ€1,2,4â€triazole. Polymer International, 2014, 63, 1936-1943.	3.1	15
249	Selfâ€Repairable Polyurethane Networks by Atmospheric Carbon Dioxide and Water. Angewandte Chemie - International Edition, 2014, 53, 12142-12147.	13.8	73
250	Shape-Memory Materials. NIMS Monographs, 2014, , 285-373.	0.3	1
251	Toughening response of a crack-tip surrounded by a local elastic gradient. Smart Materials and Structures, 2014, 23, 035009.	3.5	6
252	Atomic force microscopy–based study of self-healing coatings based on reversible polymer network systems. Journal of Intelligent Material Systems and Structures, 2014, 25, 40-46.	2.5	36
253	Healing of fatigue delamination cracks in carbon–epoxy composite using mendable polymer stitching. Journal of Intelligent Material Systems and Structures, 2014, 25, 75-86.	2.5	25
254	Smart Biomaterials. NIMS Monographs, 2014, , .	0.3	57
255	Effects of programming and healing temperatures on the healing efficiency of a confined healable polymer composite. Smart Materials and Structures, 2014, 23, 025027.	3.5	12

#	Article	IF	CITATIONS
256	Introduction of self-healing properties into covalent polymer networks via the photodissociation of alkoxyamine junctions. Polymer Chemistry, 2014, 5, 921-930.	3.9	67
257	Catalyst-free room-temperature self-healing elastomers based on aromatic disulfide metathesis. Materials Horizons, 2014, 1, 237-240.	12.2	686
258	Rapid self-healing and triple stimuli responsiveness of a supramolecular polymer gel based on boron–catechol interactions in a novel water-soluble mussel-inspired copolymer. Polymer Chemistry, 2014, 5, 512-523.	3.9	133
259	Effect of polymer architecture on the intrinsic self-healing character of polymers. European Polymer Journal, 2014, 53, 118-125.	5.4	256
260	25th Anniversary Article: A Soft Future: From Robots and Sensor Skin to Energy Harvesters. Advanced Materials, 2014, 26, 149-162.	21.0	732
261	Preparation and characterization of pre-silane modified ethyl cellulose-based microcapsules containing linseed oil. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2014, 447, 71-80.	4.7	54
262	Self-healing epoxy via epoxy–amine chemistry in dual hollow glass bubbles. Composites Science and Technology, 2014, 94, 23-29.	7.8	93
263	Diels–Alderâ€based crosslinked selfâ€healing polyurethane/urea from polymeric methylene diphenyl diisocyanate. Journal of Applied Polymer Science, 2014, 131, .	2.6	60
264	Hydrogenâ€bonded supramolecular polymers as selfâ€healing hydrogels: Effect of a bulky adamantyl substituent in the ureidoâ€pyrimidinone monomer. Journal of Applied Polymer Science, 2014, 131, .	2.6	52
265	Influence of microcapsule shell material on the mechanical behavior of epoxy composites for selfâ€healing applications. Journal of Applied Polymer Science, 2014, 131, .	2.6	42
266	Selfâ€Replenishing Dual Structured Superhydrophobic Coatings Prepared by Dropâ€Casting of an Allâ€Inâ€One Dispersion. Advanced Functional Materials, 2014, 24, 986-992.	14.9	108
267	Development of self-healing polymers via amine–epoxy chemistry: I. Properties of healing agent carriers and the modelling of a two-part self-healing system. Smart Materials and Structures, 2014, 23, 065003.	3.5	33
268	Real time monitoring of click chemistry self-healing in polymer composites. Journal of Materials Chemistry A, 2014, 2, 3881.	10.3	21
269	Salt spray and EIS studies on HDI microcapsule-based self-healing anticorrosive coatings. Progress in Organic Coatings, 2014, 77, 168-175.	3.9	87
270	Smart Adhesive Joints: An Overview of Recent Developments. Journal of Adhesion, 2014, 90, 16-40.	3.0	107
271	Simulation of a small molecule analogue of a lithium ionomer in an external electric field. Journal of Chemical Physics, 2014, 140, 014902.	3.0	13
272	Supramolecular Fullerene Polymers and Networks Directed by Molecular Recognition between Calix[5]arene and C ₆₀ . Chemistry - A European Journal, 2014, 20, 16138-16146.	3.3	52
273	Inherently adaptive polymer nanocomposites. Journal of Applied Polymer Science, 2014, 131, .	2.6	2

#	Article	IF	CITATIONS
274	A self-healing and multi-responsive hydrogel based on biodegradable ferrocene-modified chitosan. RSC Advances, 2014, 4, 55133-55138.	3.6	23
275	The processability of a poly(urea-urethane) elastomer reversibly crosslinked with aromatic disulfide bridges. Journal of Materials Chemistry A, 2014, 2, 5710.	10.3	215
276	Reconfigurable surface patterns on covalent adaptive network polymers using nanoimprint lithography. Polymer, 2014, 55, 5933-5937.	3.8	23
277	UV-induced self-repairing polydimethylsiloxane–polyurethane (PDMS–PUR) and polyethylene glycol–polyurethane (PEG–PUR) Cu-catalyzed networks. Journal of Materials Chemistry A, 2014, 2, 15527.	10.3	67
278	Self-healing metallo-supramolecular polymers from a ligand macromolecule synthesized via copper-catalyzed azide–alkyne cycloaddition and thiol–ene double "click―reactions. Polymer Chemistry, 2014, 5, 1945-1953.	3.9	61
279	Synthesis and characterization of reversible and selfâ€healable networks based on acylhydrazone groups. Polymer International, 2014, 63, 1558-1565.	3.1	28
280	Stateâ€ofâ€theâ€Art Analytical Methods for Assessing Dynamic Bonding Soft Matter Materials. Advanced Materials, 2014, 26, 5758-5785.	21.0	26
281	Incorporating microcapsules in smart coatings for corrosion protection of steel. , 2014, , 287-306.		10
282	A mathematical model for bacterial self-healing of cracks in concrete. Journal of Intelligent Material Systems and Structures, 2014, 25, 4-12.	2.5	39
283	Heat―or Waterâ€Driven Malleability in a Highly Recyclable Covalent Network Polymer. Advanced Materials, 2014, 26, 3938-3942.	21.0	636
284	Controllable Reversible Addition–Fragmentation Termination Monomers for Advances in Photochemically Controlled Covalent Adaptable Networks. Macromolecules, 2014, 47, 907-915.	4.8	32
285	Rare Earth 4-Hydroxycinnamate Compounds as Carbon Dioxide Corrosion Inhibitors for Steel in Sodium Chloride Solution. Journal of the Electrochemical Society, 2014, 161, C527-C534.	2.9	38
286	Triggered Detection and Deposition: Toward the Repair of Microcracks. Chemistry of Materials, 2014, 26, 4647-4652.	6.7	16
287	Strategies for developing multi-functional, self-healing coatings for corrosion prevention and other functions. , 2014, , 105-120.		5
288	Scalable preparation of multiscale carbon nanotube/glass fiber reinforcements and their application in polymer composites. Fibers and Polymers, 2014, 15, 1242-1250.	2.1	20
289	Self-Healing Poly(acrylic acid) Hydrogels with Shape Memory Behavior of High Mechanical Strength. Macromolecules, 2014, 47, 6889-6899.	4.8	231
290	Magnetothermal repair of a PMMA/iron oxide magnetic nanocomposite. Colloid and Polymer Science, 2014, 292, 1429-1437.	2.1	21
291	Shape memory effect for recovering surface damages on polymer substrates. Journal of Polymer Research, 2014, 21, 1.	2.4	18

#	Article	IF	CITATIONS
292	Long-term performance of <i>1H, 1H′, 2H, 2H</i> ′-perfluorooctyl triethoxysilane (POTS) microcapsule-based self-healing anticorrosive coatings. Journal of Intelligent Material Systems and Structures, 2014, 25, 98-106.	2.5	16
293	Zwitterionic fusion in hydrogels and spontaneous and time-independent self-healing under physiological conditions. Biomaterials, 2014, 35, 3926-3933.	11.4	119
294	The use of nano-/microlayers, self-healing and slow-release coatings to prevent corrosion and biofouling. , 2014, , 135-182.		5
295	Evolution of supramolecular healable composites: a minireview. Polymer International, 2014, 63, 933-942.	3.1	19
296	Smart hydrogels as functional biomimetic systems. Biomaterials Science, 2014, 2, 603-618.	5.4	193
297	Synthesis of linear polyurethane bearing pendant furan and cross-linked healable polyurethane containing Diels–Alder bonds. New Journal of Chemistry, 2014, 38, 770-776.	2.8	60
298	Self-Healing Metals and Metal Matrix Composites. Jom, 2014, 66, 866-871.	1.9	78
299	Healable properties of polymethacrylate derivatives having photo crosslinkable cinnamoyl side groups with surface hardness control. Journal of Coatings Technology Research, 2014, 11, 455-459.	2.5	12
300	Synthesis and antibacterial properties of a hybrid of silver–potato starch nanocapsules by miniemulsion/polyaddition polymerization. Journal of Materials Chemistry B, 2014, 2, 1838.	5.8	46
301	Self-healing of poly(propylene oxide)-polybenzoxazine thermosets by photoinduced coumarine dimerization. Journal of Polymer Science Part A, 2014, 52, 2911-2918.	2.3	70
302	Reinforcement of Optically Healable Supramolecular Polymers with Cellulose Nanocrystals. Macromolecules, 2014, 47, 152-160.	4.8	102
303	Self-healing gels based on constitutional dynamic chemistry and their potential applications. Chemical Society Reviews, 2014, 43, 8114-8131.	38.1	733
304	Design of conductive composite elastomers for stretchable electronics. Nano Today, 2014, 9, 244-260.	11.9	246
305	Polylactide Vitrimers. ACS Macro Letters, 2014, 3, 607-610.	4.8	386
306	Smart coatings for corrosion protection: an overview. , 2014, , 29-55.		9
307	Mechanical properties of mendable composites containing self-healing thermoplastic agents. Composites Part A: Applied Science and Manufacturing, 2014, 65, 10-18.	7.6	46
308	Preparation and characterization of linseed oil-filled urea–formaldehyde microcapsules and their effect on mechanical properties of an epoxy-based coating. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2014, 457, 16-26.	4.7	80
310	Application of Advanced Materials in Petroleum Engineering. , 2014, , 767-773.		0

#	Article	IF	CITATIONS
311	Self-Healing Materials Systems as a Way for Damage Mitigation in Composites Structures Caused by Orbital Space Debris. Advances in Chemical and Materials Engineering Book Series, 2014, , 1-25.	0.3	2
313	Timescales of self-healing in human bone tissue and polymeric ionic liquids. Bioinspired, Biomimetic and Nanobiomaterials, 2014, 3, 123-130.	0.9	15
316	Interwoven polymer composites via dual-electrospinning with shape memory and self-healing properties. MRS Communications, 2015, 5, 211-221.	1.8	24
317	Characterization of Self-Healing Polymers: From Macroscopic Healing Tests to the Molecular Mechanism. Advances in Polymer Science, 2015, , 113-142.	0.8	39
318	Self-Healing Polymers Based on Reversible Covalent Bonds. Advances in Polymer Science, 2015, , 1-58.	0.8	32
320	High resolution skin-like sensor capable of sensing and visualizing various sensations and three dimensional shape. Scientific Reports, 2015, 5, 12997.	3.3	29
322	Reliability modeling for dependent competing failure processes with damage self-recovery phenomenon. , 2015, , .		0
323	Selfâ€Healing Grapheneâ€Based Composites with Sensing Capabilities. Advanced Materials, 2015, 27, 4788-4794.	21.0	136
324	Dynamic Bonds in Covalently Crosslinked Polymer Networks for Photoactivated Strengthening and Healing. Advanced Materials, 2015, 27, 8007-8010.	21.0	76
325	Electrospun protective selfâ€healing coatings for light alloys: A better understanding of the intrinsic potential of the technology. Journal of Applied Polymer Science, 2015, 132, .	2.6	10
326	Sacrificial component fabrication for optimised production of micro-vascular polymer composite. IOP Conference Series: Materials Science and Engineering, 2015, 74, 012005.	0.6	0
327	Autonomic selfâ€healing of poly(vinyl butyral). Journal of Applied Polymer Science, 2015, 132, .	2.6	15
328	Epoxy/Poly(ethyleneâ€ <i>co</i> â€methacrylic acid) Blends as Thermally Activated Healing Agents in an Epoxy/Amine Network. Macromolecular Materials and Engineering, 2015, 300, 70-79.	3.6	16
329	Visibleâ€Lightâ€Induced Selfâ€Healing Diselenideâ€Containing Polyurethane Elastomer. Advanced Materials, 2015, 27, 7740-7745.	21.0	308
330	Biomimetic triblock and multiblock copolymers containing <scp>l</scp> â€Phenylalanine moieties showing healing and enhanced mechanical properties. Journal of Polymer Science Part A, 2015, 53, 2809-2819.	2.3	23
331	Dodecylamine-Loaded Halloysite Nanocontainers for Active Anticorrosion Coatings. Frontiers in Materials, 2015, 2, .	2.4	53
332	Microwave Assisted Healing of Thermally Mendable Composites. Smart Materials Research, 2015, 2015, 1-8.	0.5	2
333	Interfacial healing of carbon fiber composites in the presence of gold nanoparticles as localized "nano-heaters― RSC Advances, 2015, 5, 5680-5685.	3.6	6

#	Article	IF	CITATIONS
334	Multifunctional polymeric composites with wear-resistant, toughening, and self-healing features. , 2015, , 588-615.		1
335	Curie temperature controlled self-healing magnet–polymer composites. Journal of Materials Research, 2015, 30, 946-958.	2.6	31
336	Dynamically Cross-Linked Polydimethylsiloxane Networks with Ambient-Temperature Self-Healing. Macromolecules, 2015, 48, 8781-8788.	4.8	115
337	Thermodynamic-based cohesive zone healing model for self-healing materials. Mechanics Research Communications, 2015, 70, 102-113.	1.8	21
338	Definition, Function, and Framework Construction of a Smart Road. , 2015, , .		7
339	One-Part Self-Healing Anticorrosive Coatings. , 2015, , 491-535.		1
340	Selfâ€healing Ag/epoxy electrically conductive adhesive using encapsulated epoxyâ€amine healing chemistry. Journal of Applied Polymer Science, 2015, 132, .	2.6	8
341	Improving autonomous self healing via combined chemical/physical principles. Polymer, 2015, 69, 216-227.	3.8	57
342	Polyether–maleimideâ€based crosslinked selfâ€healing polyurethane with Diels–Alder bonds. Journal of Applied Polymer Science, 2015, 132, .	2.6	33
343	A simple and versatile approach to self-healing polymers and electrically conductive composites. RSC Advances, 2015, 5, 13261-13269.	3.6	17
344	A tough, smart elastomeric bio-based hyperbranched polyurethane nanocomposite. New Journal of Chemistry, 2015, 39, 2146-2154.	2.8	47
345	Self healing coatings containing dual active agent loaded urea formaldehyde (UF) microcapsules. Progress in Organic Coatings, 2015, 82, 57-67.	3.9	100
346	Bioinspired Self-Healing Organic Materials: Chemical Mechanisms and Fabrications. Journal of Bionic Engineering, 2015, 12, 1-16.	5.0	47
347	Novel Biocompatible Polysaccharideâ€Based Selfâ€Healing Hydrogel. Advanced Functional Materials, 2015, 25, 1352-1359.	14.9	526
348	Benzoxazine-Based Thermosets with Autonomous Self-Healing Ability. Macromolecules, 2015, 48, 1329-1334.	4.8	116
349	Optimisation of epoxy blends for use in extrinsic self-healing fibre-reinforced composites. Polymer, 2015, 69, 283-292.	3.8	28
350	Overview of crack self-healing. , 2015, , 1-19.		13
351	Inclusion of a thermoplastic phase to improve impact and post-impact performances of carbon fibre reinforced thermosetting composites $\hat{a} \in $ A review. Materials and Design, 2015, 85, 582-597.	7.0	129

#	Article	IF	CITATIONS
352	Self-healing polymeric materials based on microencapsulated healing agents: From design to preparation. Progress in Polymer Science, 2015, 49-50, 175-220.	24.7	443
353	Effects of dispersive methods on properties of microcapsules for self-healing materials. Composite Interfaces, 2015, 22, 837-845.	2.3	2
354	Reversible cross-linking polymer-based self-healing materials. , 2015, , 159-179.		4
355	Constitutive Modeling of High Strain-Rate Elastomeric Polymers. , 2015, , 115-186.		2
356	Wear Resistance of Polymers With Encapsulated Epoxy-Amine Self-Healing Chemistry. Journal of Applied Mechanics, Transactions ASME, 2015, 82, .	2.2	7
357	Quantifying thermoset polymers healing efficiency: A systematic review of mechanical testing. Progress in Polymer Science, 2015, 49-50, 154-174.	24.7	30
358	Self-healing coatings. , 2015, , 211-241.		6
359	Development of a self-healing soft pneumatic actuator: a first concept. Bioinspiration and Biomimetics, 2015, 10, 046007.	2.9	38
360	A novel statistical spring-bead based network model for self-sensing smart polymer materials. Smart Materials and Structures, 2015, 24, 085022.	3.5	11
361	Non-destructive 3-dimensional mapping of microcapsules in polymeric coatings by confocal Raman spectroscopy. Progress in Organic Coatings, 2015, 88, 32-38.	3.9	6
362	Chemical and physical aspects of self-healing materials. Progress in Polymer Science, 2015, 49-50, 34-59.	24.7	375
363	Design of Self-Healing Supramolecular Rubbers with a Tunable Number of Chemical Cross-Links. Macromolecules, 2015, 48, 4394-4402.	4.8	108
364	Self-healing thermoplastic elastomer brush copolymers having a glassy polymethylmethacrylate backbone and rubbery polyacrylate-amide brushes. Polymer, 2015, 69, 249-254.	3.8	47
365	Fifteen chemistries for autonomous external self-healing polymers and composites. Progress in Polymer Science, 2015, 49-50, 121-153.	24.7	173
366	Healable supramolecular polymer solids. Progress in Polymer Science, 2015, 49-50, 60-78.	24.7	112
367	Anticorrosion hybrid nanocomposite coatings with encapsulated organic corrosion inhibitors. Journal of Coatings Technology Research, 2015, 12, 587-593.	2.5	32
368	A self-healing PDMS polymer with solvatochromic properties. Chemical Communications, 2015, 51, 8928-8930.	4.1	84
369	Room-Temperature Self-Healing Polymers Based on Dynamic-Covalent Boronic Esters. Macromolecules, 2015, 48, 2098-2106.	4.8	534

#	Article	IF	CITATIONS
370	Mechanical properties of a self-healing fibre reinforced epoxy composites. Composites Part B: Engineering, 2015, 78, 515-519.	12.0	46
371	Thermally reversible and selfâ€healing novolac epoxy resins based on <scp>Diels</scp> – <scp>Alder</scp> chemistry. Journal of Applied Polymer Science, 2015, 132, .	2.6	47
372	Rapid Selfâ€Integrating, Injectable Hydrogel for Tissue Complex Regeneration. Advanced Healthcare Materials, 2015, 4, 1491-1495.	7.6	155
373	A dynamic and self-crosslinked polysaccharide hydrogel with autonomous self-healing ability. Soft Matter, 2015, 11, 3971-3976.	2.7	147
374	Biotransformation of soybean oil to a self-healing biopolymer. Biocatalysis and Biotransformation, 2015, 33, 29-37.	2.0	0
375	Photo-healable ion gel with improved mechanical properties using a tetra-arm diblock copolymer containing azobenzene groups. Polymer, 2015, 78, 42-50.	3.8	28
376	Manufacturing strategies for microvascular polymeric composites: A review. Composites Part A: Applied Science and Manufacturing, 2015, 78, 327-340.	7.6	31
377	Mechanistic Perspectives on Stereocontrol in Lewis Acid-Mediated Radical Polymerization. Advances in Physical Organic Chemistry, 2015, 49, 189-258.	0.5	6
378	Synthesis and characterization of an ultra-soft poly(carbonate urethane). European Polymer Journal, 2015, 71, 510-522.	5.4	26
379	Synergy between Galvanic Protection and Self-Healing Paints. Langmuir, 2015, 31, 10610-10617.	3.5	11
380	Diels-Alder based, thermo-reversible cross-linked epoxies for use in self-healing composites. Polymer, 2015, 79, 187-194.	3.8	128
382	Flexible and transparent electrode based on silver nanowires and a urethane acrylate incorporating Diels–Alder adducts. Materials and Design, 2015, 88, 1158-1163.	7.0	14
383	Effects of processing conditions on the properties of epoxy resin microcapsule. Journal Wuhan University of Technology, Materials Science Edition, 2015, 30, 689-694.	1.0	5
384	Investigation of self-healing compliant actuators for robotics. , 2015, , .		9
385	Remendable thermosetting polymers for isocyanate-free adhesives: a preliminary study. Polymer Chemistry, 2015, 6, 7851-7861.	3.9	70
386	Antifouling and antibacterial hydrogel coatings with self-healing properties based on a dynamic disulfide exchange reaction. Polymer Chemistry, 2015, 6, 7027-7035.	3.9	131
387	Self-healing composites: A review. Cogent Engineering, 2015, 2, 1075686.	2.2	116
388	Structured microparticles with tailored properties produced by membrane emulsification. Advances in Colloid and Interface Science, 2015, 225, 53-87.	14.7	57

#	Article	IF	CITATIONS
389	Cohesive Zone Damage-Healing Model for Self-Healing Materials. Applied Mechanics and Materials, 0, 784, 111-118.	0.2	2
390	Self-healing multilayer polyelectrolyte composite film with chitosan and poly(acrylic acid). Soft Matter, 2015, 11, 8452-8459.	2.7	61
391	Stimuli responsive drug delivery application of polymer and silica in biomedicine. Journal of Materials Chemistry B, 2015, 3, 8599-8622.	5.8	88
392	Self-healing poly(N-isopropylacrylamide) hydrogels. European Polymer Journal, 2015, 72, 12-22.	5.4	31
393	Density functional theory screening of gas-treatment strategies for stabilization of high energy-density lithium metal anodes. Journal of Power Sources, 2015, 296, 150-161.	7.8	57
394	Ionic Modification Turns Commercial Rubber into a Self-Healing Material. ACS Applied Materials & Interfaces, 2015, 7, 20623-20630.	8.0	244
395	Self-healing, malleable and creep limiting materials using both supramolecular and reversible covalent linkages. Polymer Chemistry, 2015, 6, 7368-7372.	3.9	89
396	Repeated self-healing of nano and micro scale cracks in epoxy based composites by tri-axial electrospun fibers including different healing agents. RSC Advances, 2015, 5, 73133-73145.	3.6	52
397	Application of magnetite nano-hybrid epoxy as protective marine coatings for steel. RSC Advances, 2015, 5, 101923-101931.	3.6	35
398	Preparation of polyurethane microcapsules with different polyols component for encapsulation of isophorone diisocyanate healing agent. Progress in Organic Coatings, 2015, 89, 271-276.	3.9	38
399	Design, preparation and properties of microcapsules containing rejuvenator for asphalt. Construction and Building Materials, 2015, 99, 143-149.	7.2	56
400	New strategies towards reversible and mendable epoxy based materials employing [4ï€s+4ï€s] photocycloaddition and thermal cycloreversion of pendant anthracene groups. Polymer, 2015, 80, 76-87.	3.8	50
401	Recent advances towards the fabrication and biomedical applications of responsive polymeric assemblies and nanoparticle hybrid superstructures. Dalton Transactions, 2015, 44, 3904-3922.	3.3	43
402	Self-healing hybrid nanocomposite coatings with encapsulated organic corrosion inhibitors. Journal of Polymer Research, 2015, 22, 1.	2.4	22
403	Multifunctional polymer composites: Antibacterial, flame retardant, radar absorbing and self-healing. Journal of Composite Materials, 2015, 49, 2469-2482.	2.4	13
404	Functional Supramolecular Polymers for Biomedical Applications. Advanced Materials, 2015, 27, 498-526.	21.0	429
405	Graphene improved electrochemical property in self-healing multilayer polyelectrolyte film. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2015, 465, 26-31.	4.7	33
406	A Writable Polypeptide–DNA Hydrogel with Rationally Designed Multiâ€modification Sites. Small, 2015, 11, 1138-1143.	10.0	119

ARTICLE IF CITATIONS # Homogeneous and Heterogeneous Solid State Self-Healing System. Polymers and Polymer Composites, 407 1.9 1 2016, 24, 815-824. Microwave Assisted Manufacturing and Repair of Carbon Reinforced Nanocomposites. Journal of 408 0.8 Composites, 2016, 2016, 1-9. Self-Healing Photocurable Epoxy/thiol-ene Systems Using an Aromatic Epoxy Resin. Advances in 409 1.8 14 Materials Science and Engineering, 2016, 2016, 1-11. Properties of Polymer Composites Used in High-Voltage Applications. Polymers, 2016, 8, 173. A Multiple-Action Self-Healing Coating. Frontiers in Materials, 2016, 2, . 411 2.4 30 New Surface-Treatment Technique of Concrete Structures Using Crack Repair Stick with Healing Ingredients. Materials, 2016, 9, 654. Transient Network at Large Deformations: Elastic–Plastic Transition and Necking Instability. 413 4.5 24 Polymers, 2016, 8, 108. Improved selfâ€healing properties of collagen using polyurethane microcapsules containing reactive 3.1 diisocyanate. Polymer International, 2016, 65, 721-727. Thermoplastic acrylic resin with selfâ€healing properties. Polymer Engineering and Science, 2016, 56, 415 3.1 20 251-257. Comparative analysis of shape memoryâ€based selfâ€healing coatings. Journal of Polymer Science, Part B: 2.1 Polymer Physics, 2016, 54, 1415-1426. A Highly Stretchable Polymer that Can Be Thermally Healed at Mild Temperature. Macromolecular 417 3.9 68 Rapid Communications, 2016, 37, 952-956. Polysiloxaneâ€Based Autonomic Selfâ€Healing Elastomers Obtained through Dynamic Boronic Ester Bonds Prepared by Thiol–Ene "Click―Chemistry. Macromolecular Rapid Communications, 2016, 37, 1052-1059. Healing of polymeric artificial muscle reinforced ionomer composite by resistive heating. Journal of 419 2.6 15 Applied Polymer Science, 2016, 133, . Self-healing Materials. Advances in Polymer Science, 2016, , . 420 0.8 54 Finite element implementation and application of a cohesive zone damage-healing model for 421 4.3 25 self-healing materials. Engineering Fracture Mechanics, 2016, 163, 1-22. Slightly crosslinked polyurethane with Diels–Alder adducts from trimethylolpropane. Journal of 422 Applied Polymer Science, 2016, 133, . Mechanical behavior of epoxy systems using microencapsulated amino-functional siloxanes. AIP 423 0.4 2 Conference Proceedings, 2016, , . 424 Diels–Alder thermoreversible isocyanate-free polyurethanes. Green Materials, 2016, 4, 160-170. 2.1

#	Article	IF	CITATIONS
425	Self-healing of cracks in Ag joining layer for die-attachment in power devices. Applied Physics Letters, 2016, 109, .	3.3	40
426	Mechanically Compliant Electrodes and Dielectric Elastomers from PEG-PDMS Copolymers. MRS Advances, 2016, 1, 3497-3508.	0.9	0
427	Selective crosslinking or addressing of individual domains within block copolymer nanostructures. European Polymer Journal, 2016, 80, 317-331.	5.4	25
428	LED-cured self-replenishing hydrophobic coatings based on interpenetrating polymer networks (IPNs). RSC Advances, 2016, 6, 33971-33982.	3.6	9
429	Smart Polymeric-Based Microencapsulation: A Promising Synergic Combination. , 2016, , 577-604.		1
430	Self-Healing Coatings for Corrosion Protection of Steel. , 2016, , 479-492.		0
431	Smart Self-Healing Polymer Coatings: Mechanical Damage Repair and Corrosion Prevention. , 2016, , 511-535.		2
432	Radiation-Curable Smart Coatings. , 2016, , 647-657.		0
433	A highly stretchable autonomous self-healing elastomer. Nature Chemistry, 2016, 8, 618-624.	13.6	1,133
434	The physics of biofilms—an introduction. Journal Physics D: Applied Physics, 2016, 49, 203001.	2.8	57
435	Toughening and healing of continuous fibre reinforced composites by supramolecular polymers. Composites Science and Technology, 2016, 128, 84-93.	7.8	43
436	Photothermal triggering of self-healing processes applied to the reparation of bio-based polymer networks. Materials Research Express, 2016, 3, 045003.	1.6	36
437	Study of quantification methods in self-healing ceramics, polymers and concrete: A route towards standardization. Journal of Intelligent Material Systems and Structures, 2016, 27, 2577-2598.	2.5	28
438	Selection of healing agents for autonomous healing of alumina at high temperatures. Journal of the European Ceramic Society, 2016, 36, 4141-4145.	5.7	21
439	Self-healing epoxy coatings curing with varied ratios of diamine and monoamine triggered via near-infrared light. Progress in Organic Coatings, 2016, 101, 543-552.	3.9	47
440	Biologically Inspired Materials Exhibiting Repeatable Regeneration with Selfâ€Sealing Capabilities without External Stimuli or Catalysts. Advanced Materials, 2016, 28, 9961-9968.	21.0	73
441	The effect of varying volume fraction of microcapsules on fresh, mechanical and self-healing properties of mortars. Construction and Building Materials, 2016, 122, 577-593.	7.2	118
442	Best of both worlds: Diels–Alder chemistry towards fabrication of redox-responsive degradable hydrogels for protein release. RSC Advances, 2016, 6, 74757-74764.	3.6	41

ARTICLE IF CITATIONS # Development of self-healing coatings for corrosion protection on metallic structures. Smart 443 3.5 24 Materials and Structures, 2016, 25, 084013. Size and core content optimization of epoxy nanocapsules by response surface methodology for use in self-healing coatings. Smart Materials and Structures, 2016, 25, 084014. 444 3.5 445 Selfâ€Healing Hydrogels. Advanced Materials, 2016, 28, 9060-9093. 21.0 993 Interfacial strengthening and self-healing effect in graphene-copper nanolayered composites under 446 shear deformation. Carbon, 2016, 107, 680-688. Advanced Materials for Thermo-Responsive Applications., 2016, , 283-315. 448 0 Mechanical effects of microchannels on fiber-reinforced composite structure. Composite 449 5.8 Structures, 2016, 154, 129-141. A Highly Stretchable and Autonomous Selfâ€Healing Polymer Based on Combination of Pt·Â·À·Pt and π–Ĩ€ 450 3.9 199 Interactions. Macromolecular Rapid Communications, 2016, 37, 1667-1675. Progress in the remote-controlled activation of self-healing processes. Smart Materials and 3.5 Structures, 2016, 25, 084018. Transformation of food packaging from passive to innovative via nanotechnology: concepts and 452 2.8 58 critiques. Journal of Food Science and Technology, 2016, 53, 3395-3407. Selfâ€Healing Molecular Crystals. Angewandte Chemie - International Edition, 2016, 55, 13028-13032. 13.8 Anticorrosion behavior of cyclodextrins/inhibitor nanocapsule-based self-healing coatings. Journal 454 2.5 27 of Coatings Technology Research, 2016, 13, 1095-1102. Selfâ€Healing Molecular Crystals. Angewandte Chemie, 2016, 128, 13222-13226. 2.0 Characterization and modeling of three-dimensional self-healing shape memory alloy-reinforced 456 3.2 22 metal-matrix composites. Mechanics of Materials, 2016, 103, 1-10. Advanced Materials for Thermoelectric Applications., 2016, 238-282. Mechanisms of Local Stress Sensing in Multifunctional Polymer Films Using Fluorescent Tetrapod 458 9.1 22 Nanocrystals. Nano Letters, 2016, 16, 5060-5067. A Stiff and Healable Polymer Based on Dynamicâ€Covalent Boroxine Bonds. Advanced Materials, 2016, 28, 349 8277-8282. Multifunctional Energy Storage and Conversion Devices. Advanced Materials, 2016, 28, 8344-8364. 460 21.0 420 Renewable, Degradable, and Chemically Recyclable Cross-Linked Elastomers. Industrial & amp; Engineering Chemistry Research, 2016, 55, 11097-11106.

#	Article	IF	CITATIONS
462	Re-healable polyimine thermosets: polymer composition and moisture sensitivity. Polymer Chemistry, 2016, 7, 7052-7056.	3.9	108
463	Self-healing properties of poly(ethylene-co-vinyl acetate). Colloid and Polymer Science, 2016, 294, 537-543.	2.1	10
465	Self-healing hyperbranched polytriazoles prepared by metal-free click polymerization of propiolate and azide monomers. Science China Chemistry, 2016, 59, 1554-1560.	8.2	22
466	Autonomous self-healing structural composites with bio-inspired design. Scientific Reports, 2016, 6, 25059.	3.3	50
467	High mechanical strength and high dielectric graphene/polyuthane composites healded by near infrared laser. , 2016, , .		1
468	Effect of Self-Healing Calcium Nitrate Microcapsules on Concrete Properties. Transportation Research Record, 2016, 2577, 69-77.	1.9	28
469	Regeneration efficiency of composites containing twoâ€sized capillaries. Polymer Composites, 2016, 37, 1223-1230.	4.6	7
470	Selfâ€Healing Properties of Protein Resin with Soy Protein Isolateâ€Loaded Poly(<scp>d,l</scp> â€lactideâ€ <i>co</i> â€glycolide) Microcapsules. Advanced Functional Materials, 2016, 26, 4786-4796.	14.9	38
471	2D―and 3D Observation and Mechanism of Selfâ€Healing in Glass–Boron Composites. Journal of the American Ceramic Society, 2016, 99, 849-855.	3.8	8
472	Toward Self-Healing Actuators: A Preliminary Concept. IEEE Transactions on Robotics, 2016, 32, 736-743.	10.3	24
473	Thermal mending in immiscible poly(Îμ-caprolactone)/epoxy blends. European Polymer Journal, 2016, 81, 114-128.	5.4	37
474	Experimental Investigation of the Ballistic Response of Composite Panels Coupled with a Self-Healing Polymeric Layer. Journal of Aerospace Engineering, 2016, 29, .	1.4	11
475	Self-Healable Sensors Based Nanoparticles for Detecting Physiological Markers via Skin and Breath: Toward Disease Prevention via Wearable Devices. Nano Letters, 2016, 16, 4194-4202.	9.1	143
476	Spontaneously Healable Thermoplastic Elastomers Achieved through One-Pot Living Ring-Opening Metathesis Copolymerization of Well-Designed Bulky Monomers. ACS Applied Materials & Interfaces, 2016, 8, 12445-12455.	8.0	39
477	Anodic Oxidation in Aluminum Electrode by Using Hydrated Amorphous Aluminum Oxide Film as Solid Electrolyte under High Electric Field. ACS Applied Materials & Interfaces, 2016, 8, 11100-11107.	8.0	26
478	Self-Healing Superhydrophobic Fluoropolymer Brushes as Highly Protein-Repellent Coatings. Langmuir, 2016, 32, 6310-6318.	3.5	67
479	Mechanical Restoration of Damaged Polymer Films by "Repairâ€andâ€Go― Advanced Functional Materials, 2016, 26, 857-863.	14.9	15
480	Activated anionic ring-opening polymerization for the synthesis of reversibly cross-linkable poly(propylene oxide) based on furan/maleimide chemistry. Polymer Chemistry, 2016, 7, 1612-1622. –	3.9	30

#	Article	IF	Citations
481	Development of a Novel Self-Healing Polymer with High Temperature Stability. , 2016, , .		0
482	Tribological behaviors of binary and ternary epoxy composites functionalized with different microcapsules and reinforced by short carbon fibers. Wear, 2016, 350-351, 89-98.	3.1	45
484	Design of new disulfide-based organic compounds for the improvement of self-healing materials. Physical Chemistry Chemical Physics, 2016, 18, 1758-1770.	2.8	139
485	Smart and composite inorganic coatings obtained by sputtering. , 2016, , 33-60.		2
486	Smart composite coatings for corrosion protection of aluminium alloys in aerospace applications. , 2016, , 85-121.		39
487	Smart corrosion protection by multi-action self-healing polymeric coatings. , 2016, , 157-181.		1
488	The Potential of Microencapsulated Self-healing Materials for Microcracks Recovery in Self-healing Composite Systems: A Review. Polymer Reviews, 2016, 56, 429-485.	10.9	114
489	Doubly-dynamic-covalent polymers composed of oxime and oxanorbornene links. Polymer Chemistry, 2016, 7, 1971-1978.	3.9	38
490	The effect of polyurethane-isophorone microcapsules on self-healing properties of an automotive clearcoat. Pigment and Resin Technology, 2016, 45, 73-78.	0.9	10
491	Healing by the Joule effect of electrically conductive poly(ester-urethane)/carbon nanotube nanocomposites. Journal of Materials Chemistry A, 2016, 4, 4089-4097.	10.3	75
492	The use of azide–alkyne click chemistry in recent syntheses and applications of polytriazole-based nanostructured polymers. Nanoscale, 2016, 8, 4864-4881.	5.6	88
493	Reinforcements and Composites with Special Properties. Textile Science and Clothing Technology, 2016, , 317-373.	0.5	1
494	Multi-stimuli-responsive self-healing metallo-supramolecular polymer nanocomposites. Journal of Materials Chemistry A, 2016, 4, 3324-3334.	10.3	73
495	Natural Hydrogels. , 2016, , 1-16.		1
496	Light-Controlled Radical Polymerization: Mechanisms, Methods, and Applications. Chemical Reviews, 2016, 116, 10167-10211.	47.7	883
497	Epoxy-Filled Microcapsules by Interfacial Engineering. Polymer-Plastics Technology and Engineering, 2016, 55, 937-942.	1.9	3
498	Active Protective Coatings. Springer Series in Materials Science, 2016, , .	0.6	25
499	Delivery Systems for Self Healing Protective Coatings. Springer Series in Materials Science, 2016, , 157-199.	0.6	12

#	Article	IF	CITATIONS
500	A novel processing approach to produce microchannel embedded carbon-epoxy composites. Journal of Manufacturing Processes, 2016, 22, 26-33.	5.9	5
501	Crack formation and self-healing behavior during the drying of alumina gels: Experimental studies. Drying Technology, 2016, 34, 1501-1509.	3.1	1
502	Crack Damage in Polymers and Composites: A Review. Polymer Reviews, 2016, 56, 31-69.	10.9	135
504	Structure and Transport in Coatings from Multiscale Computed Tomography of Coatings—New Perspectives for Eelectrochemical Impedance Spectroscopy Modeling?. Electrochimica Acta, 2016, 202, 243-252.	5.2	9
505	Innovations in Food Packaging Materials. Food Engineering Series, 2016, , 383-412.	0.7	2
506	Effects of fluorinated silane compound on the repeated self- healing properties of nanocapsules. Journal of Polymer Research, 2016, 23, 1.	2.4	4
507	Enhancement of high temperature oxidation resistance and spallation resistance of SiC-self-healing thermal barrier coatings. Surface and Coatings Technology, 2016, 286, 365-375.	4.8	35
508	Multifunctional Material Systems: A state-of-the-art review. Composite Structures, 2016, 151, 3-35.	5.8	231
509	Novel self-healing dental resin with microcapsules of polymerizable triethylene glycol dimethacrylate and N,N-dihydroxyethyl-p-toluidine. Dental Materials, 2016, 32, 294-304.	3.5	58
510	Advances in healing-on-demand polymers and polymer composites. Progress in Polymer Science, 2016, 57, 32-63.	24.7	172
511	Healing of shape memory polyurethane fiber-reinforced syntactic foam subjected to tensile stress. Journal of Intelligent Material Systems and Structures, 2016, 27, 1792-1801.	2.5	29
512	Preparation and characterization of novel light induced self-healing materials for cracks in asphalt pavements. Construction and Building Materials, 2016, 105, 336-342.	7.2	28
513	Self-healing polyelectrolyte multilayer composite film with microcapsules. RSC Advances, 2016, 6, 12100-12106.	3.6	14
514	Static and fatigue tensile properties of cross-ply laminates containing vascules for self-healing applications. Smart Materials and Structures, 2016, 25, 015003.	3.5	30
515	Microcapsules containing multi-functional reactive isocyanate-terminated polyurethane prepolymer as a healing agent. Part 1: synthesis and optimization of reaction conditions. Journal of Materials Science, 2016, 51, 3056-3068.	3.7	51
516	Superhydrophobic surfaces for corrosion protection: a review of recent progresses and future directions. Journal of Coatings Technology Research, 2016, 13, 11-29.	2.5	296
518	Thermal Activation of Mendable Epoxy through Inclusion of Microcapsules and Imidazole Complexes. Polymer-Plastics Technology and Engineering, 2016, 55, 129-137.	1.9	18
519	Application of microencapsulated unsaturated polyester toward temperature-triggered healing in epoxy composites. Journal of Intelligent Material Systems and Structures, 2016, 27, 1650-1657.	2.5	4

#	Article	IF	CITATIONS
520	An optimized cross-linked network model to simulate the linear elastic material response of a smart polymer. Journal of Intelligent Material Systems and Structures, 2016, 27, 1461-1475.	2.5	14
521	Optimization of preparation conditions of epoxy-containing nanocapsules. Science and Engineering of Composite Materials, 2017, 24, 155-161.	1.4	5
522	Influence of dual-component microcapsules on self-healing efficiency and performance of metal-epoxy composite-lap joints. Journal of Adhesion, 2017, 93, 949-963.	3.0	16
523	Advanced Structural Materials by Bioinspiration. Advanced Engineering Materials, 2017, 19, 1600787.	3.5	103
524	Biodegradable Nanocomposites for Energy Harvesting, Self-healing, and Shape Memory. Springer Series on Polymer and Composite Materials, 2017, , 377-397.	0.7	3
525	Molecular Design Approaches to Self-healing Materials from Polymer and its Nanocomposites. Springer Series on Polymer and Composite Materials, 2017, , 181-218.	0.7	3
526	Polybenzoxazines as Self-Healing Materials. , 2017, , 1019-1028.		5
527	Lightâ€&witchable Selfâ€Healing Hydrogel Based on Host–Guest Macroâ€Crosslinking. Macromolecular Rapid Communications, 2017, 38, 1600741.	3.9	78
528	Design and characterization of a microbial self-healing gel for enhanced oil recovery. RSC Advances, 2017, 7, 2578-2586.	3.6	16
529	Smart Polymer Nanocomposites. Springer Series on Polymer and Composite Materials, 2017, , .	0.7	17
530	Self-healing green composites based on soy protein and microfibrillated cellulose. Composites Science and Technology, 2017, 143, 22-30.	7.8	38
531	Evaluation of corrosion performance of a self-healing epoxy-based coating containing linseed oil-filled microcapsules via electrochemical impedance spectroscopy. Progress in Organic Coatings, 2017, 105, 212-224.	3.9	110
532	Selfâ€healing and interfacially toughened carbon fibreâ€epoxy composites based on electrospun core–shell nanofibres. Journal of Applied Polymer Science, 2017, 134, 44956.	2.6	72
533	Preparation and characterization of durable micro/nanocapsules for use in self-healing anticorrosive coatings. Polymer Science - Series B, 2017, 59, 281-291.	0.8	7
534	Rheo-mechanical model for self-healing asphalt pavement. Journal of Physics: Conference Series, 2017, 790, 012001.	0.4	4
535	Thermally reversible crosslinked copolymers: Solution and bulk behavior. Polymer, 2017, 117, 342-353.	3.8	8
536	Thermal mending in E-glass reinforced poly(ε-caprolactone)/epoxy blends. Composites Part A: Applied Science and Manufacturing, 2017, 99, 129-138.	7.6	32
537	Self-healing Functional Polymers: Optical Property Recovery of Conjugated Polymer Films by Uncatalyzed Imine Metathesis. Macromolecules, 2017, 50, 3789-3795.	4.8	26

#	Article	IF	CITATIONS
538	Thermo-reversible MWCNTs/epoxy polymer for use in self-healing and recyclable epoxy adhesive. Chinese Journal of Polymer Science (English Edition), 2017, 35, 728-738.	3.8	15
539	Highly efficient thermogenesis from Fe ₃ O ₄ nanoparticles for thermoplastic material repair both in air and underwater. Journal of Materials Chemistry A, 2017, 5, 1221-1232.	10.3	29
540	Functional flexible and wearable supercapacitors. Journal Physics D: Applied Physics, 2017, 50, 273001.	2.8	31
541	Carbon Dots as Fillers Inducing Healing/Selfâ€Healing and Anticorrosion Properties in Polymers. Advanced Materials, 2017, 29, 1701399.	21.0	142
542	Development of humidity-responsive self-healing zwitterionic polyurethanes for renewable shape memory applications. RSC Advances, 2017, 7, 31525-31534.	3.6	37
543	Polyurethane-based microcapsules containing reactive isocyanate compounds: Study on preparation procedure and solvent replacement. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 529, 750-759.	4.7	26
544	Performance of modified self-healing concrete with calcium nitrate microencapsulation. Construction and Building Materials, 2017, 149, 525-534.	7.2	51
545	Selfâ€Healing Epoxy Coatings via Focused Sunlight Based on Photothermal Effect. Macromolecular Materials and Engineering, 2017, 302, 1700059.	3.6	34
546	Strategic design and fabrication of acrylic shape memory polymers. Smart Materials and Structures, 2017, 26, 085026.	3.5	7
547	Light- and heat-triggered polyurethane based on dihydroxyl anthracene derivatives for self-healing applications. Journal of Materials Chemistry A, 2017, 5, 8010-8017.	10.3	83
548	Active photo-thermal self-healing of shape memory polyurethanes. Smart Materials and Structures, 2017, 26, 055003.	3.5	19
549	Healing efficiency of polystyrene electrospun nanofibers with Grubbs' catalyst in thermosetting composite. Journal of Composite Materials, 2017, 51, 3003-3016.	2.4	9
550	Damage indication of 2′, 7′-dichlorofluorescein for epoxy polymer and the effect of water on its damage indicating ability. E-Polymers, 2017, 17, 57-64.	3.0	3
551	Self-healed Materials from Thermoplastic Polymer Composites. Springer Series on Polymer and Composite Materials, 2017, , 153-180.	0.7	2
552	Triggering the Selfâ€Healing Properties of Modified Bromobutyl Rubber by Intrinsically Electrical Heating. Macromolecular Materials and Engineering, 2017, 302, 1600385.	3.6	39
553	Self-healing composite coatings based on in situ micro–nanoencapsulation process for corrosion protection. Journal of Coatings Technology Research, 0, , 1.	2.5	7
554	lonic transport and barrier effect of anodic oxide layer in a solid-state Al2O3 capacitor under high electric field. Electrochimica Acta, 2017, 224, 235-242.	5.2	9
555	Parametric study of protein-encapsulated microcapsule formation and effect on self-healing efficiency of â€~green' soy protein resin. Journal of Materials Science, 2017, 52, 3028-3047.	3.7	18

#	Article	IF	CITATIONS
556	Monitoring of self-healing composites: a nonlinear ultrasound approach. Smart Materials and Structures, 2017, 26, 115015.	3.5	16
557	Rapid self-healing and recycling of multiple-responsive mechanically enhanced epoxy resin/graphene nanocomposites. RSC Advances, 2017, 7, 46336-46343.	3.6	23
558	Spontaneous Crack Healing in Nanostructured Silica-Based Thin Films. ACS Nano, 2017, 11, 10289-10294.	14.6	14
559	Durable superhydrophobic and superamphiphobic polymeric surfaces and their applications: A review. Advances in Colloid and Interface Science, 2017, 250, 132-157.	14.7	203
560	Force-induced cleavage of a labile bond for enhanced mechanochemical crosslinking. Polymer Chemistry, 2017, 8, 6485-6489.	3.9	18
561	<i>50th Anniversary Perspective</i> : Solid-State Multistimuli, Multiresponsive Polymeric Materials. Macromolecules, 2017, 50, 8845-8870.	4.8	117
562	Molecularly Engineered Intrinsically Healable and Stretchable Conducting Polymers. Chemistry of Materials, 2017, 29, 8850-8858.	6.7	49
563	Novel imidazolium-based poly(ionic liquid)s with different counterions for self-healing. Journal of Materials Chemistry A, 2017, 5, 25220-25229.	10.3	83
564	Facile one-pot synthesis and self-healing properties of tetrazole-based metallopolymers in the presence of iron salts. RSC Advances, 2017, 7, 47316-47323.	3.6	9
565	One-component Diels–Alder based polyurethanes: a unique way to self-heal. RSC Advances, 2017, 7, 48047-48053.	3.6	47
566	State-of-the-art and prospect for self-healing asphalt concrete. AIP Conference Proceedings, 2017, , .	0.4	3
567	Manufacturing of unidirectional glass/epoxy prepreg with microencapsulated liquid healing agents. Composites Science and Technology, 2017, 153, 190-197.	7.8	17
568	Design and development of trivalent aluminum ions induced self-healing polyacrylic acid novel hydrogels. Polymer, 2017, 126, 196-205.	3.8	44
569	Novel self-healing dental luting cements with microcapsules for indirect restorations. Journal of Dentistry, 2017, 66, 76-82.	4.1	24
570	Selfâ€Healing Materials for Nextâ€Generation Energy Harvesting and Storage Devices. Advanced Energy Materials, 2017, 7, 1700890.	19.5	206
571	Interest of molecular functionalization for electrochemical storage. Nano Research, 2017, 10, 4175-4200.	10.4	11
572	Wetting and Coalescence of Drops of Self-Healing Agents on Electrospun Nanofiber Mats. Langmuir, 2017, 33, 10663-10672.	3.5	9
573	Lab-on-Skin: A Review of Flexible and Stretchable Electronics for Wearable Health Monitoring. ACS Nano, 2017, 11, 9614-9635.	14.6	1,245

#	ARTICLE Novel liquid crystalline copolyester containing amphi-mesogenic units toward multiple	IF	CITATIONS
575	stimuli-response behaviors. Journal of Materials Chemistry C, 2017, 5, 9702-9711. Environmental performance of bio-based and biodegradable plastics: the road ahead. Chemical Society Reviews, 2017, 46, 6855-6871.	38.1	502
578	Interfacial self-healing of nanocomposite hydrogels: Theory and experiment. Journal of the Mechanics and Physics of Solids, 2017, 109, 288-306.	4.8	30
579	Self-healing behavior of polyurethanes based on dual actions of thermo-reversible Diels-Alder reaction and thermal movement of molecular chains. Polymer, 2017, 124, 48-59.	3.8	118
580	Rapid, Photomediated Healing of Hexaarylbiimidazole-Based Covalently Cross-Linked Gels. Chemistry of Materials, 2017, 29, 7023-7031.	6.7	31
581	Scratch behavior of model polyurethane elastomers containing different soft segment types. Materials and Design, 2017, 132, 419-429.	7.0	45
582	Oil-Repellent Antifogging Films with Water-Enabled Functional and Structural Healing Ability. ACS Applied Materials & Interfaces, 2017, 9, 27955-27963.	8.0	64
583	Dynamic covalent bond from first principles: Diarylbibenzofuranone structural, electronic, and oxidation studies. Journal of Computational Chemistry, 2017, 38, 2675-2679.	3.3	3
584	Cellulose nanofibers to assist the release of healing agents in epoxy coatings. Progress in Organic Coatings, 2017, 112, 127-132.	3.9	48
585	Recycling and Self-Healing of Polybenzoxazines with Dynamic Sulfide Linkages. Scientific Reports, 2017, 7, 5207.	3.3	79
586	Characterization of weld attributes in ultrasonic welding of short carbon fiber reinforced thermoplastic composites. Journal of Manufacturing Processes, 2017, 29, 124-132.	5.9	62
587	Synthesis and healing properties of poly(arylether sulfone)–poly(alkylthioether) multiblock copolymers containing disulfide bonds. Journal of Polymer Science Part A, 2017, 55, 3545-3553.	2.3	5
588	Tough Selfâ€Healing Elastomers by Molecular Enforced Integration of Covalent and Reversible Networks. Advanced Materials, 2017, 29, 1702616.	21.0	304
589	Self-healing soft pneumatic robots. Science Robotics, 2017, 2, .	17.6	359
590	Mechanical and thermal properties of carbon-nanotube-reinforced self-healing polyurethanes. Journal of Materials Science, 2017, 52, 12221-12234.	3.7	35
591	Damage recovery after impact in E-glass reinforced poly(ε-caprolactone)/epoxy blends. Composite Structures, 2017, 180, 439-447.	5.8	24
592	One-pot synthesis of self-healable and recyclable ionogels based on polyamidoamine (PAMAM) dendrimers via Schiff base reaction. RSC Advances, 2017, 7, 38765-38772.	3.6	16
593	Self-healing polymeric materials for membrane separation: an example of a polybenzimidazole-based membrane for pervaporation dehydration on isopropanol aqueous solution. RSC Advances, 2017, 7, 38360-38366.	3.6	14

	Сіта	tion Report	
# 594	ARTICLE The Chemistry of Structural Adhesives: Epoxy, Urethane, and Acrylic Adhesives. , 2017, , 677-708.	IF	CITATIONS
595	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
597	Mechanically strong ionogels formed by immobilizing ionic liquid in polyzwitterion networks. Journal of Molecular Liquids, 2017, 248, 759-766.	4.9	34
598	Smart anti-corrosion self-healing zinc metal-based molybdate functionalized-mesoporous-silica (MCM-41) nanocomposite coatings. RSC Advances, 2017, 7, 51879-51887.	3.6	26
599	Silicon Anode Design for Lithium-Ion Batteries: Progress and Perspectives. Journal of Physical Chemistry C, 2017, 121, 27775-27787.	3.1	169
600	Actual trends in the elaboration of advanced multifunctional coating systems for the efficient protection of lightweight aircraft alloys. Corrosion Reviews, 2017, 35, 383-396.	2.0	6
601	Self-healable hydrogels with crosslinking induced thermo-responsiveness and regulated properties from water soluble polymer. Polymer, 2017, 131, 202-208.	3.8	15
602	Towards the development of self-healing carbon/epoxy composites with improved potential provided by efficient encapsulation of healing agents in core-shell nanofibers. Polymer Testing, 2017, 62, 79-87.	4.8	73
603	Self-Healing Polyphosphonium Ionic Networks. Macromolecules, 2017, 50, 5253-5260.	4.8	37
604	Development of a new stable ruthenium initiator suitably designed for self-repairing applications in high reactive environments. Journal of Industrial and Engineering Chemistry, 2017, 54, 234-251.	5.8	28
605	Water-repairable zwitterionic polymer coatings for anti-biofouling surfaces. Journal of Materials Chemistry B, 2017, 5, 6728-6733.	5.8	58
606	Characterization and preservation effect of polyelectrolyte multilayer coating fabricated by carboxymethyl cellulose and chitosan. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 529, 1016-1023.	4.7	19
607	Multi-crosslinkable self-healing polysilsesquioxanes for the smart recovery of anti-scratch properties. Polymer, 2017, 124, 78-87.	3.8	13
608	Facile and cost-effective synthesis of isocyanate microcapsules via polyvinyl alcohol-mediated interfacial polymerization and their application in self-healing materials. Composites Science and Technology, 2017, 138, 15-23.	7.8	61
609	Polyurethanes based on isophorone diisocyanate trimer and polypropylene glycol crosslinked by thermal reversible diels alder reactions. Journal of Applied Polymer Science, 2017, 134, .	2.6	26
610	Epoxy Resins. , 2017, , 773-797.		54
611	Cyclic oxidation behavior of SiC-containing self-healing TBC systems fabricated by APS. Journal of Alloys and Compounds, 2017, 691, 811-821.	5.5	14
612	Thermoresponsive crosslinked isocyanateâ€free polyurethanes by <scp>D</scp> ielsâ€ <scp>A</scp> lder polymerization. Journal of Applied Polymer Science, 2017, 134, .	2.6	25

#	Article	IF	CITATIONS
613	Self-healing of densely crosslinked thermoset polymers—a critical review. Progress in Organic Coatings, 2017, 104, 232-249.	3.9	162
614	Thermally reversible self-healing polysilsesquioxane structure-property relationships based on Diels-Alder chemistry. Polymer, 2017, 108, 58-65.	3.8	38
615	Wetting of inclined nano-textured surfaces by self-healing agents. Applied Physics Letters, 2017, 111, .	3.3	6
616	Degradable Thermosets Derived from an Isosorbide/Succinic Anhydride Monomer and Glycerol. ACS Sustainable Chemistry and Engineering, 2017, 5, 9185-9190.	6.7	42
617	Advanced Multifunctional Corrosion Protective Coating Systems for Light-Weight Aircraft Alloys—Actual Trends and Challenges. , 0, , .		2
618	Self-Healing and Damage Resilience for Soft Robotics: A Review. Frontiers in Robotics and AI, 2017, 4, .	3.2	83
619	Metamorphic biomaterials. , 2017, , 69-99.		6
620	Controlled Light Cross-Linking Technique to Prepare Healable Materials. Polymers, 2017, 9, 241.	4.5	1
621	Self-Healing Polymeric Composite Material Design, Failure Analysis and Future Outlook: A Review. Polymers, 2017, 9, 535.	4.5	58
622	Hydrogels for Biomedical Applications: Their Characteristics and the Mechanisms behind Them. Gels, 2017, 3, 6.	4.5	658
623	Self-healing properties of carbon nanotube filled natural rubber/bromobutyl rubber blends. EXPRESS Polymer Letters, 2017, 11, 230-242.	2.1	55
624	Differential Scanning Calorimetry study on curing kinetics of diglycidyl ether of bisphenol A with amine curing agents for self-healing systems. Revista Materia, 2017, 22, .	0.2	3
625	Dental Composite Formulation Design with Bioactivity on Protein Adsorption Combined with Crack-Healing Capability. Journal of Functional Biomaterials, 2017, 8, 40.	4.4	14
626	Light triggered interfacial damage self-healing of poly(p-phenylene benzobisoxazole) fiber composites. Nanotechnology, 2018, 29, 185602.	2.6	114
627	How to Design a Selfâ€Healing Polymer: General Concepts of Dynamic Covalent Bonds and Their Application for Intrinsic Healable Materials. Advanced Materials Interfaces, 2018, 5, 1800051.	3.7	177
628	Distinct Mechanical and Self-Healing Properties in Two Polydimethylsiloxane Coordination Polymers with Fine-Tuned Bond Strength. Inorganic Chemistry, 2018, 57, 3232-3242.	4.0	51
629	Materials and Wearable Devices for Autonomous Monitoring of Physiological Markers. Advanced Materials, 2018, 30, e1705024.	21.0	145
630	Reconfigurable and Reprocessable Thermoset Shape Memory Polymer with Synergetic Triple Dynamic Covalent Bonds. Macromolecular Rapid Communications, 2018, 39, e1800128.	3.9	57

#	Article	IF	CITATIONS
631	Urethanes as reversible covalent moieties in self-healing polymers. European Polymer Journal, 2018, 104, 45-50.	5.4	21
632	Synthesis and healing properties of poly(arylene ether sulfone)â€poly(alkyl disulfide) multiblock copolymers. Journal of Polymer Science Part A, 2018, 56, 1358-1365.	2.3	1
633	Self-Healing Electronic Materials for a Smart and Sustainable Future. ACS Applied Materials & Interfaces, 2018, 10, 15331-15345.	8.0	170
636	A smart coating established with encapsulation of Zinc Molybdate centred nanocontainer for active corrosion protection of mild steel: release kinetics of corrosion inhibitor. Composite Interfaces, 2018, 25, 785-808.	2.3	39
637	Recent advances in the development of aerospace materials. Progress in Aerospace Sciences, 2018, 97, 22-34.	12.1	604
638	Hydroxyethyl cellulose-based self-healing hydrogels with enhanced mechanical properties via metal-ligand bond interactions. European Polymer Journal, 2018, 100, 219-227.	5.4	71
639	Construction of Autonomic Self-Healing CO ₂ -Based Polycarbonates via One-Pot Tandem Synthetic Strategy. Macromolecules, 2018, 51, 1308-1313.	4.8	40
640	Multifunctional Stimuli-Responsive Hydrogels with Self-Healing, High Conductivity, and Rapid Recovery through Host–Guest Interactions. Chemistry of Materials, 2018, 30, 1729-1742.	6.7	469
641	Smart, self-repair polymers based on acryloyl-6-aminocaproic acid and modified with magnetic nanoparticles—preparation and characterization. International Journal of Polymer Analysis and Characterization, 2018, 23, 226-235.	1.9	3
642	The influence of boundary conditions on the healing of bitumen. Road Materials and Pavement Design, 2018, 19, 571-580.	4.0	9
643	Transiently malleable multi-healable hydrogel nanocomposites based on responsive boronic acid copolymers. Polymer Chemistry, 2018, 9, 525-537.	3.9	39
644	Development of a novel chitosan based biocompatible and self-healing hydrogel for controlled release of hydrophilic drug. International Journal of Biological Macromolecules, 2018, 116, 37-44.	7.5	51
645	Sulfenamides as Building Blocks for Efficient Disulfideâ€Based Selfâ€Healing Materials. A Quantum Chemical Study. ChemistryOpen, 2018, 7, 248-255.	1.9	16
646	Routes to Make Natural Rubber Heal: A Review. Polymer Reviews, 2018, 58, 585-609.	10.9	48
647	Dynamic Bonds between Boronic Acid and Alginate: Hydrogels with Stretchable, Self-Healing, Stimuli-Responsive, Remoldable, and Adhesive Properties. Biomacromolecules, 2018, 19, 2053-2061.	5.4	143
648	Combining benzoxazine and ketene chemistries for self-healing of high performance thermoset surfaces. Polymer Chemistry, 2018, 9, 2031-2039.	3.9	37
649	Recent Advancements in Self-Healing Metallic Materials and Self-Healing Metal Matrix Composites. Jom, 2018, 70, 846-854.	1.9	25
650	Supramolecular design of hydrophobic and hydrophilic polymeric nanoparticles. , 2018, , 181-221.		5

#	Article	IF	CITATIONS
651	Polymer and Photonic Materials Towards Biomedical Breakthroughs. , 2018, , .		4
652	Development and Characterization of Photoresponsive Polymers. , 2018, , 3-47.		4
653	Transparent Polymeric Films Capable of Healing Millimeter-Scale Cuts. ACS Applied Materials & Interfaces, 2018, 10, 13073-13081.	8.0	20
654	Self-healable tough supramolecular hydrogels crosslinked by poly-cyclodextrin through host-guest interaction. Carbohydrate Polymers, 2018, 193, 54-61.	10.2	59
655	Multiamine-induced self-healing poly (Acrylic Acid) hydrogels with shape memory behavior. Polymer Journal, 2018, 50, 485-493.	2.7	12
656	Preparation and Characterization of Microcapsules Containing Soybean Oil and Their Application in Self-Healing Anticorrosive Coatings. Polymer-Plastics Technology and Engineering, 2018, 57, 1334-1343.	1.9	18
657	Impact-resistant fabrics (ballistic/stabbing/slashing/spike). , 2018, , 377-434.		5
658	Fast and excellent healing of hydroxypropyl guar gum/poly(<i>N,N</i> â€dimethyl acrylamide) hydrogels. Journal of Polymer Science, Part B: Polymer Physics, 2018, 56, 239-247.	2.1	10
659	Superior Toughness and Fast Selfâ€Healing at Room Temperature Engineered by Transparent Elastomers. Advanced Materials, 2018, 30, 1705145.	21.0	532
661	A readily self-healing and recyclable silicone elastomer <i>via</i> boron–nitrogen noncovalent crosslinking. New Journal of Chemistry, 2018, 42, 18517-18520.	2.8	12
662	Improvement and tuning of the performance of light-healable polymers by variation of the monomer content. Polymer Chemistry, 2018, 9, 5585-5593.	3.9	21
663	Protective desilication of highly siliceous H-ZSM-5 by sole tetraethylammonium hydroxide for the methanol to propylene (MTP) reaction. RSC Advances, 2018, 8, 37842-37854.	3.6	12
665	Selective aerobic oxidation of alkyl aromatics on Bi ₂ MoO ₆ nanoplates decorated with Pt nanoparticles under visible light irradiation. Chemical Communications, 2018, 54, 12194-12197.	4.1	26
666	Defining the optimal criterion for separating gases using polymeric membranes. Soft Matter, 2018, 14, 9847-9850.	2.7	1
667	Direct microencapsulation of pure polyamine by integrating microfluidic emulsion and interfacial polymerization for practical self-healing materials. Journal of Materials Chemistry A, 2018, 6, 24092-24099.	10.3	32
668	Wear Calculation-Based Degradation Analysis and Modeling for Remaining Useful Life Prediction of Ball Screw. Mathematical Problems in Engineering, 2018, 2018, 1-18.	1.1	5
669	Comparison between the optical properties of injection molded and additive manufactured components. Procedia CIRP, 2018, 74, 259-263.	1.9	1
671	Microfluidic generation of self-contained multicomponent microcapsules for self-healing materials. Applied Physics Letters, 2018, 113, .	3.3	32

#	Article	IF	CITATIONS
672	Development and Application of an Additively Manufactured Calcium Chloride Nebulizer for Alginate 3D-Bioprinting Purposes. Journal of Functional Biomaterials, 2018, 9, 63.	4.4	25
673	Smart Coating Based on Urea-Formaldehyde Microcapsules Loaded with Benzotriazole for Corrosion Protection of Mild Steel in 3.5 % NaCl. Russian Journal of Applied Chemistry, 2018, 91, 1721-1728.	0.5	25
674	Rapid Selfâ€healing Film From Novel Photo Polymerization Additive ChemistrySelect, 2018, 3, 12836-12840.	1.5	3
675	Benzoxazine-Based Thermoset with Autonomous Self-Healing and Shape Recovery. Macromolecules, 2018, 51, 10095-10103.	4.8	62
676	Multifunctional Self-Healing Ionogels from Supramolecular Assembly: Smart Conductive and Remarkable Lubricating Materials. ACS Applied Materials & Interfaces, 2018, 10, 44706-44715.	8.0	51
677	Polymeric Microcapsules with Sustainable Core and Hierarchical Shell toward Superhydrophobicity and Sunlight-Induced Self-Healing Performance. Industrial & Engineering Chemistry Research, 2018, 57, 14517-14526.	3.7	10
678	Superhydrophobic Film Coatings for Corrosion Inhibition. Interface Science and Technology, 2018, , 133-184.	3.3	3
679	Polymethacrylamide and Carbon Composites that Grow, Strengthen, and Selfâ€Repair using Ambient Carbon Dioxide Fixation. Advanced Materials, 2018, 30, e1804037.	21.0	25
680	Diels–Alder-Crosslinked Polymers Derived from Jatropha Oil. Polymers, 2018, 10, 1177.	4.5	8
682	Corrosion protective self-healing epoxy resin coatings based on inhibitor and polymeric healing agents encapsulated in organic and inorganic micro and nanocontainers. Nano Structures Nano Objects, 2018, 16, 381-395.	3.5	109
683	Prospects of Application of Self-Healing Materials and Technologies Based on Them. Inorganic Materials: Applied Research, 2018, 9, 785-793.	0.5	17
684	Design of self-healing catalysts for aircraft application. International Journal of Structural Integrity, 2018, 9, 723-736.	3.3	6
685	Material properties of the seal gasket for shield tunnels: A review. Construction and Building Materials, 2018, 191, 877-890.	7.2	43
686	Thermal switching between solid- and liquid-like behavior of dispersed semi-crystalline telechelics and nanohybrids tailored for temperature-induced healing of polyethylene cracks. Polymer, 2018, 154, 27-34.	3.8	3
687	Temperature-regulated aggregation-induced emissive self-healable hydrogels for controlled drug delivery. Polymer Chemistry, 2018, 9, 5002-5013.	3.9	35
688	Thermo-reversible self-healing in a fluorous crosslinked copolymer. Polymer Chemistry, 2018, 9, 3248-3261.	3.9	26
689	Electrochemical evaluation of the rapid self-healing behavior of poly(borosiloxane) and its use for corrosion protection of metals. Electrochemistry Communications, 2018, 93, 1-4.	4.7	9
690	Size limitations on achieving tough and healable fibre reinforced composites through the use of thermoplastic nanofibres. Composites Part A: Applied Science and Manufacturing, 2018, 112, 485-495.	7.6	10

#	Article	IF	CITATIONS
691	Slippery liquid-infused porous surface fabricated on CuZn: A barrier to abiotic seawater corrosion and microbiologically induced corrosion. Applied Surface Science, 2018, 457, 468-476.	6.1	52
692	Benzoxazine resins as smart materials and future perspectives. , 2018, , 543-576.		11
694	Design of a new generation of sustainable SBR compounds with good trade-off between mechanical properties and self-healing ability. European Polymer Journal, 2018, 106, 273-283.	5.4	37
695	Functional Stimuli-Responsive Gels: Hydrogels and Microgels. Gels, 2018, 4, 54.	4.5	144
696	A rigid and healable polymer cross-linked by weak but abundant Zn(II)-carboxylate interactions. Nature Communications, 2018, 9, 2725.	12.8	242
697	The influence of diol chain extender on morphology and properties of thermally-triggered UV-stable self-healing polyurethane coatings. Progress in Organic Coatings, 2018, 122, 1-9.	3.9	25
698	Efficient Entrapment of Oxirane Ring Containing Compounds in Thermally Stable Poly(urea-formaldehyde) Polymer Shell Wall. Polymer Science - Series B, 2018, 60, 20-34.	0.8	1
699	A comprehensive review on self-healing of asphalt materials: Mechanism, model, characterization and enhancement. Advances in Colloid and Interface Science, 2018, 256, 65-93.	14.7	165
700	Hydrogel Actuators and Sensors for Biomedical Soft Robots: Brief Overview with Impending Challenges. Biomimetics, 2018, 3, 15.	3.3	164
701	Recent advances on organic coating system technologies for corrosion protection of offshore metallic structures. Journal of Molecular Liquids, 2018, 269, 572-606.	4.9	148
702	Approaches to Sustainable and Continually Recyclable Cross-Linked Polymers. ACS Sustainable Chemistry and Engineering, 2018, 6, 11145-11159.	6.7	348
703	Room-temperature versus heating-mediated healing of a Diels-Alder crosslinked polymer network. Polymer, 2018, 153, 453-463.	3.8	37
704	Polymer composites for tribological applications. Advanced Industrial and Engineering Polymer Research, 2018, 1, 3-39.	4.7	288
705	Temperature Scanning Stress Relaxation of an Autonomous Self-Healing Elastomer Containing Non-Covalent Reversible Network Junctions. Polymers, 2018, 10, 94.	4.5	32
706	Mechanics of self-healing polymer networks crosslinked by dynamic bonds. Journal of the Mechanics and Physics of Solids, 2018, 121, 409-431.	4.8	89
707	Solubility Modulation of Polyfluorene Emitters by Thermally Induced (Retro)-Diels–Alder Cross-Linking of Cyclopentadienyl Substituents. Chemistry of Materials, 2018, 30, 4157-4167.	6.7	9
708	Self-healing epoxy coatings with enhanced properties and facile processability. Polymer, 2018, 147, 196-201.	3.8	37
709	Selfâ€Healing of Polymers via Supramolecular Chemistry. Advanced Materials Interfaces, 2018, 5, 1800384.	3.7	132

#	Article	IF	CITATIONS
710	Polyurethane networks based on disulfide bonds: from tunable multi-shape memory effects to simultaneous self-healing. Science China Materials, 2019, 62, 437-447.	6.3	60
711	Transparent and Scratch-Resistant Antifogging Coatings with Rapid Self-Healing Capability. ACS Applied Materials & Interfaces, 2019, 11, 30300-30307.	8.0	63
712	Mussel-Inspired Self-Healing Polyurethane with "Flower-like―Magnetic MoS ₂ as Efficient Microwave Absorbers. ACS Applied Polymer Materials, 2019, 1, 2417-2429.	4.4	42
713	Nanotechnology in Transportation Vehicles: An Overview of Its Applications, Environmental, Health and Safety Concerns. Materials, 2019, 12, 2493.	2.9	68
714	Photo-activated self-healing bio-based polyurethanes. Industrial Crops and Products, 2019, 140, 111613.	5.2	29
715	Synthesis of calcium carbonate microcapsules as self-healing containers. RSC Advances, 2019, 9, 23666-23677.	3.6	11
716	A passive oxidation, finite element kinetics model of an Ultra-High Temperature Ceramic composite. Composites Part B: Engineering, 2019, 175, 107129.	12.0	11
717	Toughening and self-healing fiber-reinforced polymer composites using carbon nanotube modified poly (ethylene-co-methacrylic acid) sandwich membrane. Composites Part A: Applied Science and Manufacturing, 2019, 124, 105510.	7.6	21
718	The journey of self-healing and shape memory polyurethanes from bench to translational research. Polymer Chemistry, 2019, 10, 4370-4388.	3.9	54
719	Functionalized photo-responsive polymeric system. , 2019, , 211-233.		2
720	Influence of synthesis parameters on properties and characteristics of poly (urea-formaldehyde) microcapsules for self-healing applications. Journal of Microencapsulation, 2019, 36, 410-419.	2.8	12
721	Flow Control and Optimization Technologies of Information System. Journal of Physics: Conference Series, 2019, 1302, 022067.	0.4	0
722	Selfâ€Healing Polymers Based on Coordination Bonds. Advanced Materials, 2020, 32, e1903762.	21.0	343
723	Self-healing electromagnetic interference shielding composite based on Diels–Alder chemistry. Journal of Materials Science: Materials in Electronics, 2019, 30, 19994-20001.	2.2	6
724	Room temperature self-healable natural rubber. Journal of Rubber Research (Kuala Lumpur, Malaysia), 2019, 22, 203-211.	1.1	7
725	Factors Influencing the Rheological Properties of MRSP Based on the Orthogonal Experimental Design and the Impact Energy Test. Advances in Materials Science and Engineering, 2019, 2019, 1-11.	1.8	4
726	Advanced green composites: New directions. Materials Today: Proceedings, 2019, 8, 832-838.	1.8	8
727	Synthesis and characterization of amine hardener filled microcapsules for self-healing composite applications. Materials Research Express, 2019, 6, 115318.	1.6	7

#	Article	IF	CITATIONS
728	Research on the causes of smog and the effect of spatial spillover. IOP Conference Series: Earth and Environmental Science, 2019, 310, 022001.	0.3	0
730	A Reactive Element Approach to Improve Fracture Healing in Metallic Systems. Frontiers in Materials, 2019, 6, .	2.4	3
731	Self-Healing Polyurethane Elastomers Based on a Disulfide Bond by Digital Light Processing 3D Printing. ACS Macro Letters, 2019, 8, 1511-1516.	4.8	192
733	Diffusion- and Mobility-Controlled Self-Healing Polymer Networks with Dynamic Covalent Bonding. Macromolecules, 2019, 52, 8440-8452.	4.8	25
735	Self-healing of â€~green' thermoset zein resins with irregular shaped waxy maize starch-based/poly(D,L-lactic-co-glycolic acid) microcapsules. Composites Science and Technology, 2019, 183, 107831.	7.8	12
736	Self-Healing Polymer Composites for Structural Application. , 0, , .		12
737	Effect of Imidazolium Monomer Structure on Properties of Imidazoliumâ€Functionalized Selfâ€Healing UVâ€Cured Polymers for Flexible Electronic Devices. Macromolecular Chemistry and Physics, 2019, 220, 1900362.	2.2	6
738	Application of quantum chemical methods in polymer chemistry. International Reviews in Physical Chemistry, 2019, 38, 343-403.	2.3	22
739	Advances in self-healing supramolecular soft materials and nanocomposites. Nano Convergence, 2019, 6, 29.	12.1	52
740	Preparation and properties of self-healing cross-linked polyurethanes based on blocking and deblocking reaction. Reactive and Functional Polymers, 2019, 144, 104347.	4.1	22
741	Imine and metal–ligand dynamic bonds in soft polymers for autonomous self-healing capacitive-based pressure sensors. Soft Matter, 2019, 15, 7654-7662.	2.7	44
742	A Self-Healing and Shape Memory Polymer that Functions at Body Temperature. Molecules, 2019, 24, 3224.	3.8	39
743	Safely Dissolvable and Healable Active Packaging Films Based on Alginate and Pectin. Polymers, 2019, 11, 1594.	4.5	56
744	Preparation of inorganic-organic hybrid gels by radical exchange reaction using TiO2 nanoparticles modified with organophosphonic acid bearing C-ON bonds. Materials Today: Proceedings, 2019, 16, 180-186.	1.8	0
745	Facile Interface Design Strategy for Improving the Uvioresistant and Self-Healing Properties of Poly(<i>p</i> -phenylene benzobisoxazole) Fibers. ACS Applied Materials & Interfaces, 2019, 11, 39292-39303.	8.0	27
746	Organic–Inorganic Linear Segmented Polyurethanes Simultaneously Having Shape Recovery and Self-Healing Properties. ACS Applied Polymer Materials, 2019, 1, 3174-3184.	4.4	36
747	Preparation and application of microcapsules containing toluene-di-isocyanate for self-healing of concrete. Construction and Building Materials, 2019, 202, 762-769.	7.2	74
748	New insights into the mechanical and self-healing properties of polymers cross-linked by Fe(<scp>iii</scp>)-2,6-pyridinedicarboxamide coordination complexes. Polymer Chemistry, 2019, 10, 362-371.	3.9	21

#	Article	IF	CITATIONS
749	Repair Delaminations in Carbon/epoxy Laminates. MATEC Web of Conferences, 2019, 253, 02001.	0.2	0
750	One pot stimuli-responsive linear waterborne polyurethanes via Diels-Alder reaction. Progress in Organic Coatings, 2019, 130, 31-43.	3.9	22
751	Stereolithographic 3D printing of extrinsically self-healing composites. Scientific Reports, 2019, 9, 388.	3.3	42
752	Theory and Applications of Thiyl Radicals in Polymer Chemistry. , 2019, , 195-218.		6
753	Additive manufacturing of self-healing elastomers. NPG Asia Materials, 2019, 11, .	7.9	111
754	Mechanistic Study of Stress Relaxation in Urethane-Containing Polymer Networks. Journal of Physical Chemistry B, 2019, 123, 1432-1441.	2.6	102
755	A Recrosslinkable Preformed Particle Gel for Conformance Control in Heterogeneous Reservoirs Containing Linear-Flow Features. SPE Journal, 2019, 24, 1714-1725.	3.1	47
756	Structural colour using organized microfibrillation in glassy polymer films. Nature, 2019, 570, 363-367.	27.8	126
757	Hierarchical Uniform Supramolecular Conjugated Spherulites with Suppression of Defect Emission. IScience, 2019, 16, 399-409.	4.1	30
758	Preparation, characterization and properties of intrinsic self-healing elastomers. Journal of Materials Chemistry B, 2019, 7, 4876-4926.	5.8	141
759	Key Factors and Optimal Conditions for Self-Healing of Bituminous Binder. Journal of Materials in Civil Engineering, 2019, 31, .	2.9	18
760	Hypervalent iodine-based dynamic and self-healing network polymers. Polymer Chemistry, 2019, 10, 3943-3950.	3.9	4
761	Development of a continuous reactor for emulsion-based microencapsulation of hexyl acetate with a polyuria shell. Journal of Microencapsulation, 2019, 36, 371-384.	2.8	3
762	Optimal production delivery policies for supplier and manufacturer in a constrained closed-loop supply chain for returnable transport packaging through metaheuristic approach. Computers and Industrial Engineering, 2019, 135, 987-1003.	6.3	97
763	Selfâ€Healing Hydrogels: The Next Paradigm Shift in Tissue Engineering?. Advanced Science, 2019, 6, 1801664.	11.2	314
764	Self-healable electrochromic ion gels for low power and robust displays. Organic Electronics, 2019, 71, 199-205.	2.6	21
765	Reversible Self-Healing Carbon-Based Nanocomposites for Structural Applications. Polymers, 2019, 11, 903.	4.5	58
766	Temperature-regulated flexibility of polymer chains in rapidly self-healing hydrogels. NPG Asia Materials, 2019, 11, .	7.9	29

#	Article	IF	CITATIONS
767	Light-Healable Epoxy Polymer Networks via Anthracene Dimer Scission of Diamine Crosslinker. ACS Applied Materials & Interfaces, 2019, 11, 19429-19443.	8.0	48
768	Infrared induced repeatable self-healing and removability of mechanically enhanced graphene–epoxy flexible materials. RSC Advances, 2019, 9, 14024-14032.	3.6	14
769	Advanced Polymer Designs for Directâ€Inkâ€Write 3D Printing. Chemistry - A European Journal, 2019, 25, 10768-10781.	3.3	171
770	A deconvolution protocol of the mechanical relaxation spectrum to identify and quantify individual polymer feature contributions to self-healing. Physical Chemistry Chemical Physics, 2019, 21, 10171-10184.	2.8	5
771	3D-printed self-healing composite polymer reinforced with carbon nanotubes. Materials Letters, 2019, 249, 91-94.	2.6	27
772	Biomimetic Water-Responsive Self-Healing Epoxy with Tunable Properties. ACS Applied Materials & Interfaces, 2019, 11, 17853-17862.	8.0	48
773	Cross-linking induced thermo-responsive self-healable hydrogels with temperature regulated light emission property. Journal of Polymer Research, 2019, 26, 1.	2.4	1
774	Microcapsule-based self-healing materials: Healing efficiency and toughness reduction vs. capsule size. Composites Part B: Engineering, 2019, 171, 78-86.	12.0	96
775	Simple Approach for a Self-Healable and Stiff Polymer Network from Iminoboronate-Based Boroxine Chemistry. Chemistry of Materials, 2019, 31, 3736-3744.	6.7	87
776	Flexible Sandwich Structural Strain Sensor Based on Silver Nanowires Decorated with Selfâ€Healing Substrate. Macromolecular Materials and Engineering, 2019, 304, 1900074.	3.6	187
777	Macroscopic Observations of Physicochemical Aspects of Self-Healing Phenomena. Advanced Structured Materials, 2019, , 37-74.	0.5	0
778	Functional fluorinated polymer materials and preliminary self-healing behavior. Polymer Chemistry, 2019, 10, 1993-1997.	3.9	24
779	Experimental testing of self-healing ability of soft polymer materials. Meccanica, 2019, 54, 1959-1970.	2.0	10
780	Dynamics of Supramolecular Self-Healing Recovery in Extension. Macromolecules, 2019, 52, 2231-2242.	4.8	30
781	Thermodynamically stable whilst kinetically labile coordination bonds lead to strong and tough self-healing polymers. Nature Communications, 2019, 10, 1164.	12.8	258
782	Reversible Self-Healing for Preserving Optical Transparency and Repairing Mechanical Damage in Composites. ACS Applied Materials & amp; Interfaces, 2019, 11, 12797-12807.	8.0	6
784	Shape memory and self-healing properties of polymer-grafted Fe3O4 nanocomposites implemented with supramolecular quadruple hydrogen bonds. Polymer, 2019, 172, 404-414.	3.8	27
785	Silk Hydrogel Microfibers for Biomimetic Fibrous Material Design. Macromolecular Materials and Engineering, 2019, 304, 1900045.	3.6	10

#	ARTICLE	IF	CITATIONS
786	Facile Fabrication of Self-Healable and Antibacterial Soy Protein-Based Films with High Mechanical Strength. ACS Applied Materials & Interfaces, 2019, 11, 16107-16116.	8.0	60
787	Understanding and controlling the self-healing behavior of 2-ureido-4[1H]-pyrimidinone-functionalized clustery and dendritic dual dynamic supramolecular network. Polymer, 2019, 172, 13-26.	3.8	13
788	Tribological and anticorrosion behavior of self-healing coating containing nanocapsules. Tribology International, 2019, 136, 332-341.	5.9	30
789	Multifunctional Biomedical Adhesives. Advanced Healthcare Materials, 2019, 8, e1801568.	7.6	123
790	Recoverable and self-healing electromagnetic wave absorbing nanocomposites. Composites Science and Technology, 2019, 174, 27-32.	7.8	116
791	Electrical and Mechanical Selfâ€Healing in Highâ€Performance Dielectric Elastomer Actuator Materials. Advanced Functional Materials, 2019, 29, 1808431.	14.9	92
792	Mechanically Activated Microcapsules for "Onâ€Đemand―Drug Delivery in Dynamically Loaded Musculoskeletal Tissues. Advanced Functional Materials, 2019, 29, 1807909.	14.9	57
793	Shape Memory and Self-Healing Properties of Poly(acrylate amide) Elastomers Reinforced with Polyhedral Oligomeric Silsesquioxanes. ACS Applied Polymer Materials, 2019, 1, 359-368.	4.4	19
794	Effect of natural melanin nanoparticles on a self-healing cross-linked polyurethane. Polymer Journal, 2019, 51, 547-558.	2.7	16
795	Fabrication of Self-Healable Magnetic Nanocomposites via Dielsâ^'Alder Click Chemistry. Applied Sciences (Switzerland), 2019, 9, 506.	2.5	11
796	Self-healing Bio-composites: Concepts, Developments, and Perspective. , 2019, , 1323-1343.		1
797	Development of a new class of self-healing and therapeutic dental resins. Polymer Degradation and Stability, 2019, 163, 87-99.	5.8	25
798	A New Vascular System Highly Efficient in the Storage and Transport of Healing Agent for Self-Healing Wind Turbine Blades. Journal of Energy Resources Technology, Transactions of the ASME, 2019, 141, .	2.3	8
799	Microencapsulated aminoâ€functional polydimethylsiloxane as autonomous external selfâ€healing agent for epoxy systems. Journal of Applied Polymer Science, 2019, 136, 47627.	2.6	19
800	Multiple Hydrogen-Bonding Assisted Scratch–Healing of Transparent Coatings. Coatings, 2019, 9, 796.	2.6	3
801	3. Self-Healing Materials: Design and Applications. , 2019, , 87-112.		0
802	Development of Self-Healable Organic/Inorganic Hybrid Materials Containing a Biobased Copolymer via Diels–Alder Chemistry and Their Application in Electromagnetic Interference Shielding. Polymers, 2019, 11, 1755.	4.5	12
803	Recent Advances In Self-Healing Materials. Materials Today: Proceedings, 2019, 18, 4729-4737.	1.8	7

#	Article	IF	CITATIONS
805	Effect of Molecular Structure in the Chain Mobility of Dichalcogenide-Based Polymers with Self-Healing Capacity. Polymers, 2019, 11, 1960.	4.5	16
806	Repeatable self-healing of thermosetting fiber reinforced polymer composites with thermoplastic healant. Smart Materials and Structures, 2019, 28, 025037.	3.5	31
807	Recent Advances on Selfâ€Healing Materials and Batteries. ChemElectroChem, 2019, 6, 1605-1622.	3.4	41
808	Photoactivated Healable Vitrimeric Copolymers. Macromolecules, 2019, 52, 36-42.	4.8	34
809	Mechanics of light-activated self-healing polymer networks. Journal of the Mechanics and Physics of Solids, 2019, 124, 643-662.	4.8	26
810	Microcapsules of multilayered shell structure synthesized via one-part strategy and their application in self-healing coatings. Composites Communications, 2019, 12, 26-32.	6.3	23
811	Diels-Alder based epoxy matrix and interfacial healing of bismaleimide grafted GNP infused hybrid nanocomposites. Polymer Testing, 2019, 74, 138-151.	4.8	36
812	A Highly Ionic Conductive, Healable, and Adhesive Polysiloxane‣upported Ionogel. Macromolecular Rapid Communications, 2019, 40, e1800776.	3.9	58
813	Efficient intrinsic self-healing epoxy acrylate formed from host-guest chemistry. Polymer, 2019, 164, 79-85.	3.8	59
814	Biofriendly vegetable oil healing agents used for developing self-healing coatings: A review. Progress in Organic Coatings, 2019, 129, 77-95.	3.9	70
815	A novel strategy for the synthesis of self-healing capsule and its application. Composites Science and Technology, 2019, 171, 13-20.	7.8	35
816	Application of nano-silica and styrene-butadiene-styrene to improve asphalt mixture self healing. International Journal of Pavement Engineering, 2019, 20, 89-99.	4.4	40
817	Effect of modified keratin from renewable sources on composites properties of synthetic isoprene rubber. Journal of Elastomers and Plastics, 2020, 52, 216-238.	1.5	5
818	â€~Trigger-free' self-healable electromagnetic shielding material assisted by co-doped graphene nanostructures. Chemical Engineering Journal, 2020, 382, 122816.	12.7	34
819	A Game Changer: Functional Nano/Micromaterials for Smart Rechargeable Batteries. Advanced Functional Materials, 2020, 30, 1902499.	14.9	41
820	Synthesis of Selfâ€Healing Bioâ€Based Tannic Acidâ€Based Methacrylates By Thermoreversible Diels–Alder Reaction. Polymer Engineering and Science, 2020, 60, 140-150.	3.1	8
821	Self-healing PEG-poly(aspartic acid) hydrogel with rapid shape recovery and drug release. Colloids and Surfaces B: Biointerfaces, 2020, 185, 110601.	5.0	36
822	New Chain-Extended Bismaleimides with Aryl-Ether-Imide and Phthalide Cardo Skeleton (II): Creep, Stress Relaxation, Shape Memory and Self-Repairing Properties. Macromolecular Research, 2020, 28, 494-500.	2.4	5

	CHAHOWR		
# 823	ARTICLE Shape memory effects in self-healing polymers. Progress in Polymer Science, 2020, 102, 101208.	lF 24.7	Citations
824	Effect of Heat-Treatment on Self-healing and Processing Behavior of Thermally Reversible Polyurethanes. Journal of Polymers and the Environment, 2020, 28, 647-656.	5.0	11
825	A Highly Stretchable and Selfâ€Healing Supramolecular Elastomer Based on Sliding Crosslinks and Hydrogen Bonds. Advanced Functional Materials, 2020, 30, 1907139.	14.9	165
826	Recent innovations in artificial skin. Biomaterials Science, 2020, 8, 776-797.	5.4	38
827	Bulk network polymers with dynamic B–O bonds: healable and reprocessable materials. Materials Horizons, 2020, 7, 694-714.	12.2	151
828	Designed preparation of silicone protective materials with controlled self-healing and toughness properties. Progress in Organic Coatings, 2020, 140, 105483.	3.9	19
829	Self-standing Substrates. Engineering Materials, 2020, , .	0.6	2
830	Polyacrylate crosslinked with furyl alcohol grafting bismaleimide: A self-healing polymer coating. Progress in Organic Coatings, 2020, 139, 105475.	3.9	15
831	The dynamic chain effect on healing performance and thermo-mechanical properties of a polyurethane network. Reactive and Functional Polymers, 2020, 146, 104444.	4.1	10
832	Basics of self-healing composite materials. , 2020, , 15-31.		11
833	Self-healing polymers for composite structural applications. , 2020, , 33-51.		5
834	Self-repairing fiber polymer composites: mechanisms and properties. , 2020, , 71-85.		0
835	Self-repairing property of a polymer solid with enhanced segmental motion. , 2020, , 87-102.		1
836	Enhancements in self-curing composites. , 2020, , 177-192.		0
837	Principal and mechanism of self-repair of polymer matrix composite materials. , 2020, , 193-208.		0
838	Self-healing fiber-reinforced epoxy composites. , 2020, , 393-404.		3
839	Mechanical behavior of self-healing polyethylenimine/polyacrylic acid multilevel polymer films. , 2020, , 405-414.		0
840	Water activated healing of thiolene boronic ester coatings. Progress in Organic Coatings, 2020, 139, 105424.	3.9	3

		CITATION REPORT		
#	Article		IF	CITATIONS
841	Self-healing polymers with nanomaterials and nanostructures. Nano Today, 2020, 30, 1	00826.	11.9	68
842	Self-Healing of Materials under High Electrical Stress. Matter, 2020, 3, 989-1008.		10.0	47
843	Photothermal self-healing of gold nanoparticle–polystyrene hybrids. Nanoscale, 2020), 12, 20726-20736.	5.6	8
844	Thermally Assisted Selfâ€Healing and Shape Memory Behavior of Diphenolic Acidâ€Bas Macromolecular Materials and Engineering, 2020, 305, 2000463.	ed Benzoxazines.	3.6	18
845	Arm-length-dependent phase transformation and dual dynamic healing behavior of sup networks consisting of ureidopyrimidinone-end-functionalized semi-crystalline star poly European Polymer Journal, 2020, 138, 109976.	ramolecular vmers.	5.4	7
846	Interfacial adhesion and self-healing kinetics of multi-stimuli responsive colorless polym Composites Part B: Engineering, 2020, 203, 108451.	er bilayers.	12.0	23
847	Intelligent lubricating materials: A review. Composites Part B: Engineering, 2020, 202, 1	08450.	12.0	89
848	Triple non-covalent dynamic interactions enabled a tough and rapid room temperature elastomer for next-generation soft antennas. Journal of Materials Chemistry A, 2020, 8,	self-healing 25073-25084.	10.3	32
849	Room temperature self-healing natural rubber based on ionic supramolecular network. Conference Proceedings, 2020, , .	ĄĮP	0.4	0
850	High-Strength, Fast Self-Healing, Aging-Insensitive Elastomers with Shape Memory Effer Materials & Interfaces, 2020, 12, 35445-35452.	ct. ACS Applied	8.0	35
851	Types of chemistries involved in self-healing polymeric systems. , 2020, , 17-73.			4
852	Role of nanoparticles in self-healing of polymeric systems. , 2020, , 141-165.			0
853	Self-healing polymeric coatings containing microcapsules filled with active materials. , 2	2020, , 235-258.		2
854	Self-healing fiber-reinforced polymer composites for their potential structural applicatic 455-472.	ns. , 2020, ,		8
855	Challenges and Prospects of Bio-Inspired and Multifunctional Transparent Substrates an Layers for Optoelectronics. ACS Nano, 2020, 14, 16241-16265.	nd Barrier	14.6	27
856	Exploits, Advances and Challenges in Characterizing Self-Healing Materials. , 2020, , .			1
857	Organic–Inorganic Polycyclooctadienes with Double-Decker Silsesquioxanes in the M Synthesis, Self-Healing, and Shape Memory Properties Regulated with Quadruple Hydro Macromolecules, 2020, 53, 7119-7131.	ain Chains: Igen Bonds.	4.8	27
858	Tuning the properties of hydrogels made from poly(acrylic acid) and calcium salts. Phys Chemical Physics, 2020, 22, 18631-18638.	ical Chemistry	2.8	22

#	Article	IF	CITATIONS
859	Self-Healing Mechanisms for 3D-Printed Polymeric Structures: From Lab to Reality. Polymers, 2020, 12, 1534.	4.5	36
860	New Kind of Thermoplastic Polyurea Elastomers Synthesized from CO ₂ and with Self-Healing Properties. ACS Sustainable Chemistry and Engineering, 2020, 8, 12677-12685.	6.7	18
861	Highly efficient self-healing materials with excellent shape memory and unprecedented mechanical properties. Journal of Materials Chemistry A, 2020, 8, 16203-16211.	10.3	26
862	Fabrication and characterization of hierarchical microcapsules with multi-storage cells for repeatable self-healing. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 603, 125201.	4.7	7
863	Synthesis of Dielsâ€Alder Reactionâ€Based Remendable Epoxy Matrix and Corresponding Selfâ€healing Efficiency to Fibrous Composites. Macromolecular Materials and Engineering, 2020, 305, 2000359.	3.6	19
864	Inkjet printed self-healable strain sensor based on graphene and magnetic iron oxide nano-composite on engineered polyurethane substrate. Scientific Reports, 2020, 10, 18234.	3.3	18
865	The effect of ionic cross linker on self-healing natural rubber. AIP Conference Proceedings, 2020, , .	0.4	2
866	Stereolithography 3D Printing of Microcapsule Catalyst-Based Self-Healing Composites. ACS Applied Polymer Materials, 2020, 2, 5048-5057.	4.4	25
867	Interfacial Properties of Chitosan in Interfacial Shear and Capsule Compression. ACS Applied Materials & Interfaces, 2020, 12, 48084-48092.	8.0	6
868	Fabrication of microcapsule-type composites with the capability of underwater self-healing and damage visualization. RSC Advances, 2020, 10, 33675-33682.	3.6	10
869	Use of Bis(2,2,6,6-tetramethylpiperidin-1-yl)trisulfide as a Dynamic Covalent Bond for Thermally Healable Cross-Linked Polymer Networks. ACS Applied Polymer Materials, 2020, 2, 4054-4061.	4.4	16
870	Self-Healing EPDM Rubbers with Highly Stable and Mechanically-Enhanced Urea-Formaldehyde (UF) Microcapsules Prepared by Multi-Step In Situ Polymerization. Polymers, 2020, 12, 1918.	4.5	5
871	Recent Advances in Functional Polyurethane and Its Application in Leather Manufacture: A Review. Polymers, 2020, 12, 1996.	4.5	33
872	Towards Thermally Reversible Networks Based on Furan-Functionalization of Jatropha Oil. Molecules, 2020, 25, 3641.	3.8	4
873	An Innovative Approach for Restoring the Mechanical Properties of Thermoplastic-Matrix Nanocomposite by the Use of Partially Polymerized Cyclic Butylene Terephthalate. Journal of Composites Science, 2020, 4, 146.	3.0	0
874	Self-Healing in Mobility-Restricted Conditions Maintaining Mechanical Robustness: Furan–Maleimide Diels–Alder Cycloadditions in Polymer Networks for Ambient Applications. Polymers, 2020, 12, 2543.	4.5	21
875	Healable Carbon Fiber-Reinforced Epoxy/Cyclic Olefin Copolymer Composites. Materials, 2020, 13, 2165.	2.9	10
876	Fracture resistance of in-situ healed CFRP composite using thermoplastic healants. Materials Today Communications, 2020, 24, 101067.	1.9	13

#	Article	IF	CITATIONS
877	A facile fabrication of shape memory polymer nanocomposites with fast light-response and self-healing performance. Composites Part A: Applied Science and Manufacturing, 2020, 135, 105931.	7.6	75
878	Tough, self-healable and conductive elastomers based on freezing-thawing strategy. Chemical Engineering Journal, 2020, 402, 125421.	12.7	15
879	Process regulation for encapsulating pure polyamine via integrating microfluidic <scp>Tâ€junction</scp> and interfacial polymerization. Journal of Polymer Science, 2020, 58, 1810-1824.	3.8	5
880	Self-healing capacity of fiber-reinforced calcium phosphate cements. Scientific Reports, 2020, 10, 9430.	3.3	9
881	Microwave-Assisted Synthesis of Stretchable and Transparent Poly(Ethyleneglycol-Sebacate) Elastomers with Autonomous Self-Healing and Capacitive Properties. Soft Robotics, 2021, 8, 262-272.	8.0	2
882	Manufacturing challenges in self-healing technology for polymer composites — a review. Journal of Materials Research and Technology, 2020, 9, 7370-7379.	5.8	43
883	Revolutionizing Aircraft Materials and Processes. , 2020, , .		35
884	Smart Cellulose-Based Electronic Skin with Humidity-Driven Dynamic Performance. Trends in Chemistry, 2020, 2, 87-89.	8.5	2
885	Thermally Reversible Crosslinked Polyurethanes Based on Blocking and Deblocking Reaction. Macromolecular Materials and Engineering, 2020, 305, 1900782.	3.6	12
886	Polymer Capsules with Tunable Shell Thickness Synthesized via Janus-to-core shell Transition of Biphasic Droplets Produced in a Microfluidic Flow-Focusing Device. Scientific Reports, 2020, 10, 4549.	3.3	21
887	Healable, memorizable, and transformable lattice structures made of stiff polymers. NPG Asia Materials, 2020, 12, .	7.9	18
888	Selfâ€Healing Materials for Energy‣torage Devices. Advanced Functional Materials, 2020, 30, 1909912.	14.9	121
889	Surrounding Interactions on Phase Transition Temperature Promoted by Organometallic Complexes in Functionalized Poly(N â€isopropylacrylamide―co â€dopamine methacrylamide) Copolymers. Macromolecular Chemistry and Physics, 2020, 221, 2000035.	2.2	6
890	Highly transparent, self-healing conductive elastomers enabled by synergistic hydrogen bonding interactions. Chemical Engineering Journal, 2020, 393, 124685.	12.7	98
891	Addition of poly (ethylene-co-methacrylic acid) (EMAA) as self-healing agent to carbon-epoxy composites. Composites Part A: Applied Science and Manufacturing, 2020, 137, 106016.	7.6	23
892	A novel approach for the quantification of scratch healing of polymers. Polymer Testing, 2020, 90, 106699.	4.8	9
893	Self-healing based on composites and nanocomposites materials: from synthesis to application and modeling. , 2020, , 41-60.		2
894	Critical Role of the Molecular Interface in Double-Layered Pebax-1657/PDMS Nanomembranes for Highly Efficient CO ₂ /N ₂ Gas Separation. ACS Applied Materials & Interfaces, 2020, 12, 33196-33209.	8.0	41

#	Article	IF	CITATIONS
895	Self-healing UV-curable polymer network with reversible Diels-Alder bonds for applications in ambient conditions. Polymer, 2020, 203, 122762.	3.8	23
896	Toughening a Selfâ€Healable Supramolecular Polymer by Ionic Clusterâ€Enhanced Ironâ€Carboxylate Complexes. Angewandte Chemie - International Édition, 2020, 59, 5278-5283.	13.8	173
897	Toughening a Selfâ€Healable Supramolecular Polymer by Ionic Clusterâ€Enhanced Ironâ€Carboxylate Complexes. Angewandte Chemie, 2020, 132, 5316-5321.	2.0	57
898	Optimal storage moduli for the thermal healing of polystyrene ionomers. Journal of Applied Polymer Science, 2020, 137, 49046.	2.6	4
899	Cellulose nanocrystals in smart and stimuli-responsive materials: a review. Materials Today Advances, 2020, 5, 100055.	5.2	72
900	Recent Advances in Mechano-Responsive Hydrogels for Biomedical Applications. ACS Applied Polymer Materials, 2020, 2, 1092-1107.	4.4	59
901	Bio-based self-healing Eucommia ulmoides ester elastomer with damping and oil resistance. Journal of Materials Science, 2020, 55, 4940-4951.	3.7	26
902	Composite Reinforcement Architectures: A Review of Field-Assisted Additive Manufacturing for Polymers. Journal of Composites Science, 2020, 4, 1.	3.0	38
903	Healing of Mode-I Fatigue Crack in Fiber Reinforced Composites using Thermoplastic Healants. , 2020, , .		2
904	Design Strategy for Self-Healing Epoxy Coatings. Coatings, 2020, 10, 50.	2.6	11
905	A Selfâ€Healing Nanofiberâ€Based Selfâ€Responsive Timeâ€Temperature Indicator for Securing a Coldâ€5upply Chain. Advanced Materials, 2020, 32, e1907064.	21.0	66
906	Mechanics of bacteria-assisted extrinsic healing. Journal of the Mechanics and Physics of Solids, 2020, 139, 103938.	4.8	8
907	Research progress in bio-based self-healing materials. European Polymer Journal, 2020, 129, 109651.	5.4	71
908	The influence of the curing process on the shear thickening performance of RMG and property optimization. RSC Advances, 2020, 10, 12197-12205.	3.6	5
909	Advances in intrinsic self-healing polyurethanes and related composites. RSC Advances, 2020, 10, 13766-13782.	3.6	72
910	Bio-inspired Surface Structure for Slow-release of Urea Fertilizer. Journal of Bionic Engineering, 2020, 17, 335-344.	5.0	9
911	Ultraviolet and infrared two-wavelength modulated self-healing materials based on azobenzene-functionalized carbon nanotubes. Composites Communications, 2020, 19, 233-238.	6.3	21
912	Thermal Welding by the Third Phase Between Polymers: A Review for Ultrasonic Weld Technology Developments. Polymers, 2020, 12, 759.	4.5	22

#	Article	IF	CITATIONS
913	Hydration-induced reversible deformation of biological materials. Nature Reviews Materials, 2021, 6, 264-283.	48.7	58
914	Synergy between dynamic covalent boronic ester and boron–nitrogen coordination: strategy for self-healing polyurethane elastomers at room temperature with unprecedented mechanical properties. Materials Horizons, 2021, 8, 216-223.	12.2	145
915	Dual microcapsules based epoxy/polyethyleneimine autonomous selfâ€healing system for photoâ€curable coating. Polymers for Advanced Technologies, 2021, 32, 553-563.	3.2	9
916	Synthesis of novel copolymer/Mn+ biomimetic adhesives based on temperature strengthened coacervation effect. Chemical Engineering Journal, 2021, 425, 127249.	12.7	7
917	Review on the self-healing of asphalt materials: Mechanism, affecting factors, assessments and improvements. Construction and Building Materials, 2021, 266, 120453.	7.2	83
918	Advanced characterisation of the early age behaviour of bulk hydrophobic mortars. Construction and Building Materials, 2021, 267, 120904.	7.2	8
919	Self-healing and mechanical performance of dynamic glycol chitosan hydrogel nanocomposites. Journal of Materials Chemistry B, 2021, 9, 809-823.	5.8	19
920	Nanofibrous Patches for Repairing Cracked Surfaces. Advanced Materials Interfaces, 2021, 8, 2001492.	3.7	1
921	A water-triggered highly self-healable elastomer with enhanced mechanical properties achieved using localized zwitterionic assemblies. Chemical Engineering Journal, 2021, 420, 127636.	12.7	18
922	Progress and Roadmap for Intelligent Selfâ€Healing Materials in Autonomous Robotics. Advanced Materials, 2021, 33, e2002800.	21.0	75
923	Fused Filament Fabrication 4D Printing of a Highly Extensible, Self-Healing, Shape Memory Elastomer Based on Thermoplastic Polymer Blends. ACS Applied Materials & Interfaces, 2021, 13, 12777-12788.	8.0	64
924	Eucommia ulmoides gum-based engineering materials: fascinating platforms for advanced applications. Journal of Materials Science, 2021, 56, 1855-1878.	3.7	19
925	Micromechanics-based damage model for liquid-assisted healing. International Journal of Damage Mechanics, 2021, 30, 123-144.	4.2	6
926	Electrospun nanofibers for interfacial toughening and damage self-healing of polymer composites and surface coatings. , 2021, , 315-359.		1
927	Progress and challenges in self-healing composite materials. Materials Advances, 2021, 2, 1896-1926.	5.4	51
928	Intrinsic Self-Healing Epoxies in Polymer Matrix Composites (PMCs) for Aerospace Applications. Polymers, 2021, 13, 201.	4.5	61
929	Self-Healing materials–A review. Materials Today: Proceedings, 2021, 45, 7195-7199.	1.8	22
930	Self-healing and self-sensing smart polymer composites. , 2021, , 307-357.		1

#	Article	IF	CITATIONS
931	Recent progress in flexible nanocellulosic structures for wearable piezoresistive strain sensors. Journal of Materials Chemistry C, 2021, 9, 11001-11029.	5.5	26
932	Preparation of conductive self-healing hydrogels <i>via</i> an interpenetrating polymer network method. RSC Advances, 2021, 11, 6620-6627.	3.6	7
933	Overview on lightweight, multifunctional materials. , 2021, , 1-24.		6
934	High performance dynamic covalent crosslinked polyacylsemicarbazide composites with self-healing and recycling capabilities. Journal of Materials Chemistry A, 2021, 9, 4055-4065.	10.3	53
935	Hollow fiber reinforced polymer composites. , 2021, , 461-477.		3
936	Insights of technologies for self-healing organic coatings. , 2021, , 37-65.		1
937	Tuneable chemistry at the interface and self-healing towards improving structural properties of carbon fiber laminates: a critical review. Nanoscale Advances, 2021, 3, 5745-5776.	4.6	9
938	Effect of bulky 2,6-bis(spirocyclohexyl)-substituted piperidine rings in bis(hindered amino)trisulfide on thermal healability of polymethacrylate networks. Materials Advances, 2021, 2, 7709-7714.	5.4	6
939	In-situ Healing of Mode-I Fatigue Crack in Fiber Reinforced Composites. , 2021, , .		2
940	Self-Healing Polymer Nanocomposite Materials by Joule Effect. Polymers, 2021, 13, 649.	4.5	38
941	Selfâ€healing performance assessment of epoxy resin and amine hardener encapsulated polymethyl methacrylate microcapsules reinforced epoxy composite. Journal of Applied Polymer Science, 2021, 138, 50550.	2.6	15
942	Self-healing polymers synthesized by ring opening metathesis polymerization (ROMP) of bio-derived furanic molecules. Journal of Materials Science, 2021, 56, 8900-8909.	3.7	2
943	Strength evolution laws in curing of solvent-welded polymers. Physical Review E, 2021, 103, 022502.	2.1	1
945	Noncompressible Hemostasis and Bone Regeneration Induced by an Absorbable Bioadhesive Selfâ€Healing Hydrogel. Advanced Functional Materials, 2021, 31, 2009189.	14.9	133
946	Interfacial Bonding Mechanism and Mechanical Performance of Continuous Fiber Reinforced Composites in Additive Manufacturing. Chinese Journal of Mechanical Engineering (English Edition), 2021, 34, .	3.7	23
947	Selfâ€Healing Soft Sensors: From Material Design to Implementation. Advanced Materials, 2021, 33, e2004190.	21.0	106
948	Laser Transmission Welding of Semi-Crystalline Polymers and Their Composites: A Critical Review. Polymers, 2021, 13, 675.	4.5	24
949	Effect of nanotoxicity and enhancement in performance of polymer composites using nanofillers: A stateâ€ofâ€theâ€art review. Polymer Composites, 2021, 42, 2152-2170.	4.6	25

#	Article	IF	CITATIONS
950	A novel kind of room temperature self-healing poly(urethane-urea) with robust mechanical strength based on aromatic disulfide. Journal of Polymer Research, 2021, 28, 1.	2.4	9
951	Scalable and facile synthesis of acetal covalent adaptable networks with readily adjustable properties. European Polymer Journal, 2021, 147, 110291.	5.4	11
952	Hydrogen Bonding in Self-Healing Elastomers. ACS Omega, 2021, 6, 9319-9333.	3.5	79
953	Multiple crossâ€linked networks enhanced <scp>ENR</scp> â€based composite with excellent selfâ€healing properties. Polymers for Advanced Technologies, 2021, 32, 2856-2865.	3.2	13
954	Targeted Copolymerization in Amorphous Regions for Constructing Crystallizable Functionalized Copolymers. Macromolecules, 2021, 54, 4412-4422.	4.8	7
955	Repairing of damaged composite materials and self-healing composites. Turkish Journal of Engineering, 2022, 6, 149-155.	1.2	3
956	Poly(aspartic acid) based self-healing hydrogels with antibacterial and light-emitting properties for wound repair. Colloids and Surfaces B: Biointerfaces, 2021, 200, 111568.	5.0	18
957	Properties prediction and design of self-healing epoxy resin combining molecular dynamics simulation and back propagation neural network. Materials Research Express, 2021, 8, 045308.	1.6	3
958	Fabrication and Property Regulation of Small-Size Polyamine Microcapsules via Integrating Microfluidic T-Junction and Interfacial Polymerization. Materials, 2021, 14, 1800.	2.9	3
959	Catalytic Amine Functionalization and Polymerization of Cyclic Alkenes Creates Adhesive and Self-Healing Materials. ACS Applied Polymer Materials, 2021, 3, 2330-2335.	4.4	13
960	Acceleration Effect of Dynamic Covalent Chains in a Hard Epoxy Resin on Its Thermally Induced Deformation and Healing Behavior. Macromolecular Materials and Engineering, 2021, 306, 2100037.	3.6	4
962	Self-Healing Mechanisms in Thermoplastic, Media-Tight Injection-Molded Housings. , 2021, , .		1
963	Shape memory poly(methyl methacrylate) nanocomposites: design and methodical trends. Polymer-Plastics Technology and Materials, 0, , 1-16.	1.3	3
964	Sticky Rouse Time Features the Self-Adhesion of Supramolecular Polymer Networks. Macromolecules, 2021, 54, 5053-5064.	4.8	12
965	Capsule based self-healing composites: New insights on mechanical behaviour based on finite element analysis. Computational Materials Science, 2021, 192, 110203.	3.0	12
966	Influence of microcapsules on self-healing performance and road performance of dense-graded asphalt mixture. IOP Conference Series: Earth and Environmental Science, 2021, 768, 012020.	0.3	2
967	Theoretical Characterization of New Frustrated Lewis Pairs for Responsive Materials. Polymers, 2021, 13, 1573.	4.5	1
968	Recent Progress in 3D Printing of Smart Structures: Classification, Challenges, and Trends. Advanced Intelligent Systems, 2021, 3, 2000271.	6.1	16

#	Article	IF	CITATIONS
969	Molecular simulation-guided and physics-informed mechanistic modeling of multifunctional polymers. Acta Mechanica Sinica/Lixue Xuebao, 2021, 37, 725-745.	3.4	6
970	Development of a Strong, Recyclable Poly(dimethylsiloxane) Elastomer with Autonomic Selfâ€Healing Capabilities and Fluorescence Response Properties at Room Temperature. Macromolecular Materials and Engineering, 2021, 306, 2100132.	3.6	11
972	The preparation of hydrogels with highly efficient self-healing and excellent mechanical properties. Journal of Molecular Liquids, 2021, 329, 115581.	4.9	8
973	Rugged Soft Robots using Tough, Stretchable, and Selfâ€Healable Adhesive Elastomers. Advanced Functional Materials, 2021, 31, 2103097.	14.9	77
975	Self-repairing inorganic phosphors/polymer composite film for restructuring luminescent patterns. Materials Research Express, 2021, 8, 065302.	1.6	5
976	Universal Self-Healing Poly(dimethylsiloxane) Polymer Crosslinked Predominantly by Physical Entanglements. ACS Applied Materials & Interfaces, 2021, 13, 31129-31139.	8.0	40
977	Characterization of crack healing of asphalt mixtures treated with healing agents. Journal of Sustainable Construction Materials and Technologies, 2021, 6, 53-62.	1.0	0
978	Fabrication of novel self-healing edible coating for fruits preservation and its performance maintenance mechanism. Food Chemistry, 2021, 351, 129284.	8.2	31
979	Mussel-inspired and aromatic disulfide-mediated polyurea-urethane with rapid self-healing performance and water-resistance. Journal of Colloid and Interface Science, 2021, 593, 105-115.	9.4	33
980	A review on self-healing polymers for soft robotics. Materials Today, 2021, 47, 187-205.	14.2	150
981	Numerical study of the heating effects of high intensity focused ultrasound on shape memory polymer fiber reinforced self-healing polymer composite. Smart Materials and Structures, 2021, 30, 085026.	3.5	4
982	Flexible Self-healing Cross-linked Polyamides Synthesized Through Bulk Michael Addition, Polycondensation, and Diels-Alder Reaction. Chemical Research in Chinese Universities, 0, , 1.	2.6	3
983	Soft Untethered Robots and Grippers Based on Humidity-Gated Magnetic-Responsive Film Actuators. ACS Applied Polymer Materials, 2021, 3, 4726-4734.	4.4	10
984	Hydrogel Coatings on Container Surfaces Reduce Protein Aggregation Caused by Mechanical Stress and Cavitation. ACS Applied Bio Materials, 2021, 4, 6946-6953.	4.6	1
985	Biological Tissue-Inspired Living Self-Healing Hydrogels Based on Cadherin-Mediated Specific Cell–Cell Adhesion. ACS Macro Letters, 2021, 10, 1073-1079.	4.8	6
986	A Tough and Self-Healing Polymer Enabled by Promoting Bond Exchange in Boronic Esters with Neighboring Hydroxyl Groups. , 2021, 3, 1328-1338.		47
987	Preparation of room-temperature self-healing elastomers with high strength based on multiple dynamic bonds. European Polymer Journal, 2021, 156, 110614.	5.4	21
988	Tunable crossâ€linked copolymer networks for improvement of physical performance. Journal of Polymer Science, 2021, 59, 2094-2106.	3.8	1

#	Article	IF	CITATIONS
989	Architecturing materials at mesoscale: some current trends. Materials Research Letters, 2021, 9, 399-421.	8.7	51
990	Effect of phase selective wetting of hybrid filler on the self-healing properties of rubber blends. Polymer, 2021, 231, 124146.	3.8	6
991	Multifunctional hydrogel prepared via polymerization initiated by mechanically induced heat of coordination. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 625, 126816.	4.7	2
992	Shape Memory Composite Sandwich Structures with Self-Healing Properties. Polymers, 2021, 13, 3056.	4.5	10
993	Self-Healing Solid Polymer Electrolyte for Room-Temperature Solid-State Lithium Metal Batteries. ACS Applied Materials & Interfaces, 2021, 13, 46794-46802.	8.0	37
994	High energy conversion composites based on graphene material with excellent healing performances. Journal of Applied Polymer Science, 2022, 139, 51690.	2.6	2
995	Ultrasonic welding of fiber reinforced thermoplastic composites: Current understanding and challenges. Composites Part A: Applied Science and Manufacturing, 2021, 149, 106578.	7.6	38
996	The influence of the healing agent characteristics on the healing performance of epoxy coatings: Assessment of the repair process by EIS technique. Progress in Organic Coatings, 2021, 159, 106431.	3.9	8
997	Recent progress of electrospun nanofibrous materials for electromagnetic interference shielding. Composites Communications, 2021, 27, 100823.	6.3	44
998	Effects of carrier on the performance of bacteria-based self-healing concrete. Construction and Building Materials, 2021, 305, 124771.	7.2	37
999	Potential use of smart coatings for icephobic applications: A review. Surface and Coatings Technology, 2021, 424, 127656.	4.8	30
1000	Novel nanotube/poly(ethylene-co-methacrylic acid)/epoxy composite adhesive possessing in-situ electrical-heating activated crack healing function. Composites Part A: Applied Science and Manufacturing, 2021, 150, 106599.	7.6	7
1001	Comprehensive evaluation of a high-temperature resistant re-crosslinkable preformed particle gel for water management. Fuel, 2022, 309, 122086.	6.4	23
1002	Smart Protection of Carbon-Reinforced Composite Materials and CFRP-Metal Joints. , 2021, , 429-449.		1
1003	Direct ink writing of recyclable and <i>in situ</i> repairable photothermal polyurethane for sustainable 3D printing development. Journal of Materials Chemistry A, 2021, 9, 6981-6992.	10.3	23
1004	Self-healable functional polymers based on Diels–Alder â€~click chemistry' involving substituted furan and triazolinedione derivatives: a simple and very fast approach. Polymer Chemistry, 2021, 12, 6283-6290.	3.9	4
1006	UVâ€Light Responsive and Selfâ€Healable Ethylene/Propylene Copolymer Rubbers Based on Reversible [4 + 4] Cycloaddition of Anthracene Derivatives. Macromolecular Chemistry and Physics, 2020, 221, 2000096.	2.2	12
1007	Self-healing Substrates: Fabrication, Properties and Applications. Engineering Materials, 2020, , 235-267.	0.6	4

#	Article	IF	Citations
1008	Nano-enabled Multifunctional Materials: Mechanical Behavior and Multi-scale Modeling. , 2020, , 193-230.		1
1009	Donor–Acceptor π–΀ Stacking Interactions: From Small Molecule Complexes to Healable Supramolecular Polymer Networks. Advances in Polymer Science, 2015, , 143-166.	0.8	17
1010	Application of SVET/SIET Techniques to Study Healing Processes in Coated Metal Substrates. , 2017, , 1-57.		4
1011	The Future of Glass-ionomers. , 2016, , 125-148.		1
1012	Application of SVET/SIET Techniques to Study Healing Processes in Coated Metal Substrates. , 2018, , 1727-1782.		1
1013	Resilience of Spatial Networks. Understanding Complex Systems, 2016, , 79-106.	0.6	3
1014	Nano-enabled Multifunctional Materials for Aerospace Applications. Indian Institute of Metals Series, 2017, , 439-453.	0.3	6
1015	First generation microcapsule-based self-healing cementitious construction repair materials. Construction and Building Materials, 2020, 255, 119389.	7.2	34
1016	Biomass polyamide elastomers based on hydrogen bonds with rapid self-healing properties. European Polymer Journal, 2020, 133, 109802.	5.4	32
1017	Self-antiglare waterborne coating with superior mechanical robustness and highly efficient room-temperature self-healing capability. Progress in Organic Coatings, 2020, 146, 105717.	3.9	21
1019	Shape memory alloy reinforced vitrimer composite for healing wide-opened cracks. Smart Materials and Structures, 2020, 29, 065008.	3.5	24
1020	Enhanced Performance of Ultrasonic Welding of Short Carbon Fiber Polymer Composites Through Control of Morphological Parameters. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2020, 142, .	2.2	19
1021	UNDERSTANDING THE BEHAVIOUR OF SULPHUR-CENTRED RADICALS DURING POLYMER SELF-HEALING. Journal of the Turkish Chemical Society, Section A: Chemistry, 2017, 3, 707-707.	1.1	3
1022	Self-healing Passivation of Antimicrobial Iron oxide Nanoparticles for Epoxy Nanocomposite Coatings on Carbon Steel. International Journal of Electrochemical Science, 2016, 11, 5735-5752.	1.3	9
1023	Stimuli-sensitive hydrogels for pharmaceutical and medical applications. Facta Universitatis - Series Physics Chemistry and Technology, 2011, 9, 37-56.	0.5	17
1024	Clay-reinforced nanocomposites for the slow release of chemical fertilizers and water retention. Journal of Composites and Compounds, 2020, 2, 85-91.	0.5	10
1025	Self-healing of low-velocity impact and mode-I delamination damage in polymer composites via microchannels. EXPRESS Polymer Letters, 2016, 10, 337-348.	2.1	12
1026	â€~Containers' for self-healing epoxy composites and coating: Trends and advances. EXPRESS Polymer Letters, 2016, 10, 506-524	2.1	52

#	Article	IF	CITATIONS
1027	Mode II fracture toughening and healing of composites using supramolecular polymer interlayers. EXPRESS Polymer Letters, 2016, 10, 914-926.	2.1	29
1028	Mechanically Strong and Highly Stiff Supramolecular Polymer Composites Repairable at Ambient Conditions. CCS Chemistry, 2020, 2, 280-292.	7.8	40
1029	High Strength Al-Alloys: Microstructure, Corrosion and Principles of Protection. , 0, , .		12
1030	Preparation of Isophorone Diisocyanate-loaded Microcapsules and Their Application to Self-healing Protective Coating. Porrime, 2015, 39, 56-63.	0.2	1
1031	Advanced Multifunctional Aqueous Rechargeable Batteries Design: From Materials and Devices to Systems. Advanced Materials, 2022, 34, e2104327.	21.0	78
1032	A state-of-the-art review on self-healing in asphalt materials: Mechanical testing and analysis approaches. Construction and Building Materials, 2021, 310, 125197.	7.2	21
1033	Applications of Well-defined Macromolecules Synthesized by Living Radical Polymerization. Seikei-Kakou, 2011, 23, 543-548.	0.0	0
1035	A General Cohesive Contiuum Mechanics Framework for Constitutive Modeling of Self-Healing Materials. , 2014, , .		0
1037	Towards Sustainable Polymeric Materials: Zero Waste, Green and Self-Healing. Jurnal Teknologi (Sciences and Engineering), 2015, 74, .	0.4	1
1038	The Chemistry of Longer Wear. , 2015, , 25-42.		0
1039	The Chemistry of Longer Wear. , 2015, , 46-63.		0
1040	Application of SVET/SIET Techniques to Study Healing Processes in Coated Metal Substrates. , 2016, , 1-57.		0
1042	Investigation on Improved-Durability Thermal Barrier Coatings. Advances in Chemical and Materials Engineering Book Series, 2018, , 60-78.	0.3	4
1043	Fatigue tests, self-healing of polymer-matrix composites in unmanned aerial vehicles. Journal of KONBiN, 2018, 48, 83-106.	0.4	0
1044	Modificação do diâmetro de microcápsulas de poli(ureia-formaldeÃdo) pelo uso de octanol. Revista Materia, 2018, 23, .	0.2	0
1046	Microencapsulation of corrosion inhibitors and active additives for anticorrosive protective polymer coatings. Korroziya: Materialy, Zashchita, 2019, , 1-11.	0.1	0
1047	ANALYSIS OF MATERIALS FOR THE HEALING OF WATER PASSAGES IN THE CEMENT STONE. Problems of Gathering Treatment and Transportation of Oil and Oil Products, 2019, , 11.	0.1	0
1048	Hylozoic by Design: Converging Material and Biological Complexities for Cellâ€Driven Living Materials with 4D Behaviors. Advanced Functional Materials, 2022, 32, 2108057.	14.9	9

#	Article	IF	CITATIONS
1049	Self-Healing Mechanisms in Multifunctional Structural Materials. , 2020, , 277-302.		1
1050	AgNPs Ornamented Modified Bacterial Cellulose Based Self-Healable L-B-L Assembly <i>via</i> a Schiff Base Reaction: A Potential Wound Healing Patch. ACS Applied Bio Materials, 2021, 4, 428-440.	4.6	9
1051	Photo-induced shape memory blend composites with remote selective self-healing performance enabled by polypyrrole nanoparticles. Composites Science and Technology, 2022, 217, 109123.	7.8	19
1052	On the constitutive modelling of elasto-plastic self-healing materials. International Journal of Solids and Structures, 2022, 234-235, 111289.	2.7	2
1053	Encapsulation and delivery of active compounds using nanocontainers for industrial applications. , 2020, , 177-195.		0
1054	Self-Healing Polymers and Composite Materials. , 0, , .		1
1055	Nanocellulose-A Sustainable and Efficient Nanofiller for Rubber Nanocomposites: From Reinforcement to Smart Soft Materials. Polymer Reviews, 2022, 62, 549-584.	10.9	16
1056	Layered Self-Healing Composite Material with an Internal Functional Layer Based on Borosiloxane. Inorganic Materials: Applied Research, 2020, 11, 1051-1059.	0.5	1
1057	Stimuli responsive graphene-based materials. , 2022, , 117-144.		0
1058	Self-Healing Materials. , 2022, , 321-358.		3
1059	Castor oil-based polyurethane networks containing diselenide bonds: Self-healing, shape memory, and high flexibility. Progress in Organic Coatings, 2022, 163, 106615.	3.9	19
1060	Topology reset, reshuffling, and reconstruction of synthetic elastomers. Materials Today Chemistry, 2022, 23, 100727.	3.5	1
1061	Self-healing and repair of fabrics: A comprehensive review of the application toolkit. Materials Today, 2022, 54, 90-109.	14.2	14
1062	A self-healing and recyclable poly(urea-imine) thermoset synthesized from CO ₂ . Green Chemistry, 2022, 24, 1561-1569.	9.0	21
1063	Transparent, self-recoverable, highly tough, puncture and tear resistant polyurethane supramolecular elastomer with fast self-healing capacity <i>via</i> "hard–soft―hard domain design. RSC Advances, 2022, 12, 2712-2720.	3.6	16
1064	Self-healing performance of lightweight and electrically conductive ethylene-vinyl acetate copolymer/carbon nanotubes composite foam. Composites Communications, 2022, 29, 101051.	6.3	6
1065	Shape memory polymer/graphene nanocomposites: State-of-the-art. E-Polymers, 2022, 22, 165-181.	3.0	25
1066	Remendable conductive polyethylene composite with simultaneous restoration of electrical and mechanical behavior. Polymer Engineering and Science, 2022, 62, 991-998.	3.1	5

#	Article	IF	CITATIONS
1067	Self-healable Hydroxyl-terminated Polybutadiene based Polyurethane for Sustainable Development. IOP Conference Series: Earth and Environmental Science, 2022, 966, 012009.	0.3	0
1068	Repeatable Fatigue Life Improvement of Thermoset CFRP Composites by In-Situ Thermoplastic Healing of Mode-I Fatigue Crack. , 2022, , .		0
1069	Self-healable and reprocessable networks involving diblock copolymer and hindered urea bonds. Polymer, 2022, 242, 124591.	3.8	11
1070	Polymerizations of Activated Alkynes. Progress in Polymer Science, 2022, 126, 101503.	24.7	25
1071	Catalyzed Michael addition, polycondensation, and the related performance of Diels–Alder selfâ€healing crosslinked polyamides. Polymer Engineering and Science, 2022, 62, 1269-1280.	3.1	6
1072	Advances in polysaccharide-based hydrogels: Self-healing and electrical conductivity. Journal of Molecular Liquids, 2022, 352, 118712.	4.9	15
1073	Preparation of PVA/PU/PUA microcapsules and application in self-healing two-component waterborne polyurethane coatings. Journal of Coatings Technology Research, 2022, 19, 977-988.	2.5	4
1074	Recent Advances of Self-Healing Polymer Materials via Supramolecular Forces for Biomedical Applications. Biomacromolecules, 2022, 23, 641-660.	5.4	32
1075	Self-Healing Silicones for Outdoor High Voltage Insulation: Mechanism, Applications and Measurements. Energies, 2022, 15, 1677.	3.1	9
1076	Study on the shear thickening mechanism of multifunctional shear thickening gel and its energy dissipation under impact load. Polymer, 2022, 247, 124800.	3.8	15
1077	Self-healing epoxidized natural rubber with ionic/coordination crosslinks. Materials Chemistry and Physics, 2022, 285, 126063.	4.0	19
1078	Dual dynamic network system constructed by waterborne polyurethane for improved and recoverable performances. Chemical Engineering Journal, 2022, 442, 136204.	12.7	36
1079	Two preparation processes for anti-corrosion and self-healing epoxy coatings containing the poly (calcium alginate) microcapsules loaded with tung oil. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 641, 128600.	4.7	16
1080	Preparation and properties of O-chitosan quaternary ammonium salt/polyvinyl alcohol/graphene oxide dual self-healing hydrogel. Carbohydrate Polymers, 2022, 287, 119318.	10.2	37
1081	Setting Relationships between Structure and Devulcanization of Ground Tire Rubber and Their Effect on Self-Healing Elastomers. Polymers, 2022, 14, 11.	4.5	4
1082	Review on Self-Healing Thermal Barrier Coatings for Space Applications. Materials Performance and Characterization, 2021, 10, 790-818.	0.3	0
1083	Recent progress of biomass based selfâ€healing polymers. Journal of Applied Polymer Science, 2022, 139, .	2.6	15
1085	Towards the development of self-healing and antibacterial dental nanocomposites via incorporation of novel acrylic microcapsules. Dental Materials, 2022, 38, 858-873.	3.5	10

# 1087	ARTICLE Graphene oxide-mediated thermo-reversible bonds and <i>in situ</i> grown nano-rods trigger †self-healable' interfaces in carbon fiber laminates. Nanoscale, 2022, 14, 9004-9020.	IF 5.6	CITATIONS 6
1088	Smart dielectric materials for next-generation electrical insulation. , 2022, 1, 19-49.		20
1089	An Overview of Selfâ€Healable Polymers and Recent Advances in the Field. Macromolecular Rapid Communications, 2022, 43, e2200164.	3.9	8
1090	Dual physical cross-linked self-healing elastomer for the triple shape memory. Journal of Materials Science, 2022, 57, 11430-11442.	3.7	3
1091	Electromagnetic field controlled domain wall displacement for induced strain tailoring in BaTiO3-epoxy nanocomposite. Scientific Reports, 2022, 12, 7504.	3.3	7
1092	Thermal-triggered Trans-1, 4-polyisoprene/polyethylene wax shape memory and self-healing composites. Polymer Testing, 2022, 111, 107601.	4.8	5
1093	Intrinsic self-healing rubber: A review and perspective of material and reinforcement. Polymer Testing, 2022, 111, 107598.	4.8	21
1094	Anti-corrosion performance and mechanical properties of epoxy coatings containing microcapsules filled with linseed oil and modified ceria nanoparticles. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 648, 129157.	4.7	14
1095	Rapid self-healing in IR-responsive plasmonic indium tin oxide/polyketone nanocomposites. Journal of Materials Chemistry A, 2022, 10, 12957-12967.	10.3	7
1096	Biodegradable Albumin - Based Composites for Suture Development in Tissue Engineering Applications. SSRN Electronic Journal, 0, , .	0.4	0
1097	Performance of bacteria on self-healing concrete and its effects as carrier. Materials Today: Proceedings, 2022, 65, 1987-1989.	1.8	10
1098	Healing efficiency characterization of self-healing polymers. , 2022, , 27-56.		1
1099	A modular concept for the solid-state healing of polymer resins and composites. , 2022, , 87-113.		0
1100	Self-healing elastomers. , 2022, , 271-304.		5
1101	Self-healing coatings. , 2022, , 217-270.		1
1102	Overview of crack self-healing. , 2022, , 1-26.		1
1103	Injectable self-healing nanocellulose hydrogels crosslinked by aluminum: Cellulose nanocrystals vs. cellulose nanofibrils. Chinese Journal of Chemical Engineering, 2022, , .	3.5	4
1104	Synthesis and characterization of Eu ₂ InTe ₅ : A new layered multiâ€ŧelluride and its thermoelectric properties. Physica Status Solidi - Rapid Research Letters, 0, , .	2.4	0

#	Article	IF	CITATIONS
1105	Solving the Dichotomy between Selfâ€Healing and Mechanical Properties in Rubber Composites by Combining Reinforcing and Sustainable Fillers. Macromolecular Materials and Engineering, 2022, 307, .	3.6	12
1106	A review on selfâ€healing polymers and polymer composites for structural applications. Polymer Composites, 2022, 43, 7643-7668.	4.6	15
1107	Mini-Review of Self-Healing Mechanism and Formulation Optimization of Polyurea Coating. Polymers, 2022, 14, 2808.	4.5	15
1108	Water-reducible and self-healing acrylic coatings based on Diels-Alder reversible reaction. Progress in Organic Coatings, 2022, 171, 107012.	3.9	4
1109	Styrene and BPO poly (urea-melamine-formaldehyde) microcapsules prepared via in situ polymerization to promote the self-healing properties of epoxy composites. Journal of Coatings Technology Research, 0, , .	2.5	0
1110	Simulation of the mechanical behavior of self-healing composite materials. Aircraft Engineering and Aerospace Technology, 2022, 94, 1567.	1.2	0
1111	Photo-responsive and recyclable graphene/thermosetting polyurethane shape memory composites for self-powered mechanosensor. Journal of Polymer Research, 2022, 29, .	2.4	1
1112	Vapor-phase synthesis of a reagent-free self-healing polymer film with rapid recovery of toughness at room temperature and under ambient conditions. Soft Matter, 2022, 18, 6907-6915.	2.7	3
1113	A Comparative Study on the Self-Healing Characterizations and Formulation Optimization of Polyurea Coating. Polymers, 2022, 14, 3520.	4.5	3
1114	Advances and Challenges of Self-Healing Elastomers: A Mini Review. Materials, 2022, 15, 5993.	2.9	6
1115	From Single Use to Endless Use: Enhancing Service Life and Recyclability of Polymers through Dynamic Chemistry. ACS Symposium Series, 0, , 587-624.	0.5	0
1116	Thermal scratch healing of poly(methyl methacrylate-co-methacrylate) ionomers neutralized with various cations. Journal of Polymer Research, 2022, 29, .	2.4	1
1117	Probing and Manipulating Noncovalent Interactions in Functional Polymeric Systems. Chemical Reviews, 2022, 122, 14594-14678.	47.7	74
1118	Efficient, Room-Temperature Self-Healing Polyurethane Elastomers with Superior Tensile Properties and Solvatochromic Capacities. ACS Applied Polymer Materials, 2022, 4, 7801-7811.	4.4	5
1119	Self-healing of reversibly cross-linked thermoplastic vulcanizates. Materials Chemistry and Physics, 2022, 292, 126804.	4.0	3
1120	HEALING CARBON FIBER COMPOSITES WITH THERMOPLASTIC POLYMERS. Journal of Innovative Science and Engineering (JISE), 0, , .	0.7	0
1121	Mussel-Inspired Reversible Molecular Adhesion for Fabricating Self-Healing Materials. Langmuir, 2022, 38, 12999-13008.	3.5	13
1122	Finite Element Analysis of Self-Healing Concrete Beams Using Bacteria. Materials, 2022, 15, 7506.	2.9	2

	Сг	CITATION REPORT	
#	Article	IF	CITATIONS
1123	Rheology and self-healing of amine functionalized polyolefins. Journal of Rheology, 2022, 66, 1125-11	37. 2.6	5
1124	Synthesis and reaction mechanism of self-healing epoxy microcapsules. Shenzhen Daxue Xuebao (Ligong Ban)/Journal of Shenzhen University Science and Engineering, 2019, 36, 339-346.	0.2	0
1125	Fatigue behavior of self-healing glass fiber/epoxy composites with addition of poly (ethylene-co-methacrylic acid) (EMAA). Polymer Testing, 2022, , 107863.	4.8	0
1126	Dynamic Modeling of Intrinsic Self-Healing Polymers Using Deep Learning. ACS Applied Materials &am Interfaces, 2022, 14, 52486-52498.	.p; 8.0	2
1127	Preparation and application of recyclable multifunctional self-healing thioctic acid-based materials. European Polymer Journal, 2022, 181, 111695.	5.4	3
1128	Evaluation of the self-healing capabilities and resistance to thermal cycling of a shape-memory epoxy coating containing polycaprolactone microspheres. Progress in Organic Coatings, 2023, 174, 107322		3
1129	Microscale evaluation of epoxy matrix composites containing thermoplastic healing agent. Composites Science and Technology, 2023, 232, 109843.	7.8	4
1130	Comparative of diatom frustules, diatomite, and silica particles for constructing self-healing superhydrophobic materials with capacity for thermal energy storage. Applied Energy, 2023, 332, 120482.	10.1	5
1131	Progress in corrosion-resistant coatings on surface of low alloy steel. Journal of Iron and Steel Research International, 0, , .	2.8	1
1132	Development of Poly(Glycerol Sebacate) and Its Derivatives: A Review of the Progress over the past Two Decades. Polymer Reviews, 2023, 63, 613-678.	10.9	5
1133	Modeling of Crack Self-Healing in Thermally Remendable Fiber-Reinforced Composites. Engineering Materials, 2023, , 239-276.	0.6	0
1134	An Analysis of the Effect of Activation Temperature and Crack Geometry on the Healing Efficiency of Polycaprolactone (PCL)/Epoxy Blends. Polymers, 2023, 15, 336.	4.5	3
1135	Mechanism of Extrinsic and Intrinsic Self-healing in Polymer Systems. Engineering Materials, 2023, , 107-138.	0.6	3
1136	Tough self-healing polyurethane elastomers based on interpenetrating networks containing multiple hydrogen bond networks, flexible blocks, metal coordination and covalent cross-linking. Progress in Organic Coatings, 2023, 175, 107391.	3.9	5
1137	Encroachments in stimuli-responsive polymer/C60 systems. , 2023, , 131-152.		1
1138	Biodegradable smart materials with self-healing and shape memory function for wound healing. RSC Advances, 2023, 13, 3155-3163.	3.6	5
1139	Crosslinking of poly(<i>n</i> -butyl acrylate)-POSS copolymers <i>via</i> dynamic urea exchange enables self-healing, reprocessing and shape recovery. Polymer Chemistry, 2023, 14, 872-887.	3.9	4
1140	Self-healing aeronautical nanocomposites. , 2023, , 263-296.		0

#	Article	IF	CITATIONS
1141	Advances in ballistic protection. , 2023, , 71-139.		0
1142	Electrostatic Repulsionâ€Induced Highly Enhanced Dispersibility of Conductive Carbon Electrode with Shape Memoryâ€Assisted Selfâ€Healing Effect for Multiâ€Modal Sensing System. Advanced Materials Technologies, 0, , .	5.8	0
1143	Photoactive materials and devices for energy-efficient soft wearable optoelectronic systems. Nano Energy, 2023, 110, 108379.	16.0	7
1147	A rapid self-healing glassy polymer/metal–organic-framework hybrid membrane at room temperature. Dalton Transactions, 2023, 52, 3148-3157.	3.3	0
1148	Advanced supramolecular design for direct ink writing of soft materials. Chemical Society Reviews, 2023, 52, 1614-1649.	38.1	25
1149	Microcapsule-Based Autonomous Self-Healing of Electrical Damage in Dielectric Polymers Induced by <i>In Situ</i> Generated Radicals. ACS Applied Materials & Interfaces, 2023, 15, 11185-11192.	8.0	4
1150	Transparent and Thermoplastic Silicone Materials Based on Room-Temperature Diels–Alder Reactions. Macromolecules, 2023, 56, 2038-2051.	4.8	4
1151	The Effect of Self-Healing Agent Fraction on CFRP Mechanical Behavior: Statistical Analysis Approach. Fibers and Polymers, 2023, 24, 729-740.	2.1	0
1152	Frontal Polymerizations: From Chemical Perspectives to Macroscopic Properties and Applications. Chemical Reviews, 2023, 123, 3237-3298.	47.7	40
1153	Improvement of adhesive bond strength in polypropylene using laser surface texturing process. AIP Conference Proceedings, 2023, , .	0.4	0
1154	Ultrasonic-Excited Ultrafast Seamless Integration of Heterostructured Liquid Crystalline Elastomers for Multi-responsive Soft Actuators. ACS Applied Materials & Interfaces, 2023, 15, 13609-13617.	8.0	1
1155	Self-healing interface of carbon fiber reinforced composites based on reversible hydrogen-bonded interactions. Composites Communications, 2023, 40, 101631.	6.3	4
1158	Models for Quantitative Assessment of Self-Healing in Bacteria-Incorporated Fiber-Reinforced Mortar. Journal of Materials in Civil Engineering, 2023, 35, .	2.9	0
1159	Impact- and Thermal-Resistant Epoxy Resin Toughened with Acacia Honey. Polymers, 2023, 15, 2261.	4.5	4
1160	Dynamic covalent adaptive polymer network materials based on hindered urea bonds. Journal of Macromolecular Science - Pure and Applied Chemistry, 2023, 60, 307-320.	2.2	2
1162	Carbon Fiber Reinforced Plastics Based on an Epoxy Binder with the Effect of Thermally Induced Self-Repair. Applied Sciences (Switzerland), 2023, 13, 6557.	2.5	0
1163	Self-healing behavior of aminated polyolefins with dynamic associations. AIP Conference Proceedings, 2023, , .	0.4	0
1164	Competitive relationship between electrical degradation and healing in selfâ€healing dielectric	4.1	0

#	Article	IF	Citations
1165	Development of bio-inspired multi-functional polymeric-based fibers (BioFiber) for advanced delivery of bacterial-based self-healing agent in concrete. MATEC Web of Conferences, 2023, 378, 02001.	0.2	2
1166	Innovative Device and Procedure for In Situ Quantification of the Self-Healing Ability and Kinetics of Self-Healing of Polymeric Materials. Polymers, 2023, 15, 2152.	4.5	1
1167	Temperature responsive hydrogels for biomedical applications. Materials Today: Proceedings, 2023, , .	1.8	0
1168	Electrochemical Behavior of Smart N-Isopropyl Acrylamide Copolymer Nanogel on Steel for Corrosion Protection in Acidic Solution. International Journal of Electrochemical Science, 2015, 10, 870-882.	1.3	25
1169	Evaluation of the viscoelastic behavior, thermal transitions, and selfâ€healing efficiency of microcapsulesâ€based composites with and without a catalyst using dynamic mechanical analysis technique. Journal of Applied Polymer Science, 0, , .	2.6	2
1170	Thermal contact conductance between additively manufactured carbon fiber reinforced thermoplastic composite: An experimental study. Case Studies in Thermal Engineering, 2023, 49, 103245.	5.7	0
1171	Synthesis, Mechanism, and Applications of Self-healing Materials. , 2024, 2, 225-240.		0
1172	Self-healing polymers through hydrogen-bond cross-linking: synthesis and electronic applications. Materials Horizons, 2023, 10, 4000-4032.	12.2	9
1173	Endowing textiles with self-repairing ability through the fabrication of composites with a bacterial biofilm. Scientific Reports, 2023, 13, .	3.3	0
1174	Self-healing organic coatings – Fundamental chemistry to commercial application. Progress in Organic Coatings, 2023, 183, 107759.	3.9	2
1175	Nanocomposite Coatings for Anti-Corrosion Properties of Metallic Substrates. Materials, 2023, 16, 5092.	2.9	5
1176	Effect of Self-Healing by Dicyclopentadiene Microcapsules on Tensile and Fatigue Properties of Epoxy Composites. Materials, 2023, 16, 5191.	2.9	2
1177	Hindered segmental dynamics in associative protein hydrogels studied by neutron spin-echo spectroscopy. Physical Review Materials, 2023, 7, .	2.4	0
1178	Structural integrity and healing efficiency study of micro-capsule based composite materials via 1H NMR relaxometry. Scientific Reports, 2023, 13, .	3.3	0
1179	Mechanical properties and modeling of polyurea capsule-based self-healing composites. , 2023, , 203-219.		0
1180	Facile Photoresponsive Actuators Based on Ferrocene-Doped Poly(butyl methacrylate). ACS Applied Materials & Interfaces, 2023, 15, 38846-38856.	8.0	0
1181	Stimuli–Responsive Mechanoadaptive Elastomeric Composite Materials: Challenges, Opportunities, and New Approaches. Advanced Engineering Materials, 2023, 25, .	3.5	4
1182	A review of the recent development in self-healing rubbers and their quantification methods. Progress in Rubber, Plastics and Recycling Technology, 0, , .	1.8	2

#	Article	IF	CITATIONS
1183	Waterâ€Insensitive Selfâ€Healing Materials: From Network Structure Design to Advanced Soft Electronics. Advanced Functional Materials, 2023, 33, .	14.9	9
1184	Self-Healing of Electrical Damage in Microphase-Separated Polyurethane Elastomers with Robust Dielectric Strength Utilizing Dynamic Hydrogen Bonding Networks. ACS Applied Polymer Materials, 2023, 5, 7132-7143.	4.4	0
1185	Transferrable Electrospinning Nanofiber Meshes as Strongly Adhered Scaffolds for Slippery Liquid-Infused Porous Surfaces. ACS Omega, 2023, 8, 29122-29130.	3.5	0
1186	Polymeric Materials for Bone and Cartilage Repair Using IBM SPSS Statistics Method. , 2022, 1, 52-61.		0
1187	Impact assessment of synthesis parameter stirring speed in final physicochemical properties of PU microcapsules incorporated into epoxy matrixes. Anais Da Academia Brasileira De Ciencias, 2023, 95, .	0.8	1
1188	Self-wrinkling coating for impact resistance and mechanical enhancement. Science Bulletin, 2023, 68, 2200-2209.	9.0	0
1189	Preparation and properties of dynamic crosslinked styrene butadiene rubber. Journal of Polymer Engineering, 2023, 43, 801-809.	1.4	0
1190	Explore the most recent advancements in the domain of self-healing intelligent composites specifically designed for use in dentistry. Journal of the Mechanical Behavior of Biomedical Materials, 2023, 147, 106123.	3.1	2
1191	Synthesis and Computational Studies of Novel Disulfide-Based Curing Cum Healing Agent for Self-healing Polyurethanes. Journal of Inorganic and Organometallic Polymers and Materials, 2024, 34, 680-689.	3.7	0
1192	Extrinsic self-healing asphalt materials: A mini review. Journal of Cleaner Production, 2023, 425, 138910.	9.3	3
1193	Research on Fatigue–Healing Performance of Asphalt Mixture Based on the Semicircular Bending Test. Materials, 2023, 16, 6382.	2.9	1
1194	Comparative Study on the Strength Behavior of Self-Healing Concrete Using Silica Gel and Bacteria as Healing Agents. Journal of Materials in Civil Engineering, 2023, 35, .	2.9	0
1195	Extrinsic healing of asphalt mixtures: a review. Road Materials and Pavement Design, 0, , 1-29.	4.0	2
1196	Selfâ€healing thermoplastic elastomeric blends of zincâ€ionomer and styrene–butadiene–styrene block copolymer and their characterization. Polymer International, 2024, 73, 200-212.	3.1	0
1197	Development of a nature-inspired polymeric fiber (BioFiber) for advanced delivery of self-healing agents into concrete. Construction and Building Materials, 2023, 408, 133765.	7.2	1
1198	Emerging research trends in the field of polyurethane and its nanocomposites: Chemistry, Synthesis, Characterization, Application in coatings and Future perspectives. Journal of Coatings Technology Research, 2024, 21, 137-172.	2.5	0
1199	Development of CNT-Based Nanocomposites with Ohmic Heating Capability towards Self-Healing Applications in Extrusion-Based 3D Printing Technologies. Journal of Carbon Research, 2023, 9, 111.	2.7	0
1202	Room-temperature self-healing polyurethane elastomers with high strength and superior self-healing efficiency based on aromatic disulfide-induced. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2024, 681, 132829.	4.7	1

#	Article	IF	CITATIONS
1203	Healable and recyclable multiblock polyurethanes with mechanical performance Tailorability based on hierarchical phase separation and dynamic bond interaction. Polymer, 2023, 289, 126467.	3.8	1
1204	Dynamic poly(hindered urea) hybrid network materials crosslinked with reactive methacrylate polymer. Polymer Chemistry, 2023, 14, 5115-5124.	3.9	0
1205	Challenge for Trade-Off Relationship between the Mechanical Property and Healing Efficiency of Self-Healable Polyimide. ACS Applied Materials & amp; Interfaces, 2023, 15, 54923-54932.	8.0	0
1206	Organic-inorganic polyureas with benzyl hindered urea bonds and POSS cages in the main chains: Synthesis, shape memory and reprocessing properties. European Polymer Journal, 2024, 202, 112652.	5.4	0
1207	The Importance of Bulk Viscoelastic Properties in "Self-Healing―of Acrylate-Based Copolymer Materials. ACS Macro Letters, 2024, 13, 1-7.	4.8	1
1209	Peripherally Modified Poly(amido amine) Nanocomposite Hydrogel with Stimuliâ€Responsive Selfâ€Healing, High Tensile Strength, and Selective Superadsorption Poperties. ChemistrySelect, 2023, 8, .	1.5	0
1210	Regulation of mechanical properties and self-healing performance of polyurethane nanocomposites by tuning the contents of free and associated hydrogen bonds. Polymer Chemistry, 0, , .	3.9	1
1211	Synthesis and characterization of Poly(urea-formaldehyde) microcapsules with 5-ethylidene-2-norbornene as self-healing agent and potential use in polymeric composites. Anais Da Academia Brasileira De Ciencias, 2023, 95, .	0.8	0
1212	Bond strength of substrate with repair material for masonry structures. , 2023, 2, 46-61.		1
1213	Perspectives on stimuli-sensitive polyester nanocomposite. , 2024, , 87-110.		0
1214	Shape memory polymers: mechanism, structure, and properties. , 2024, , 1-19.		0
1215	Modeling and simulation of shape memory nanocomposites. , 2024, , 255-270.		0
1216	Decoding Polymeric Additiveâ€Driven Selfâ€Healing Processes in Perovskite Solar Cells from Chemical and Physical Bonding Perspectives. Advanced Energy Materials, 2024, 14, .	19.5	1
1217	Preparation of CNTs-SiO2 hybrids/epoxy superhydrophobic coating with self-healing property activated by shape memory effect. Composites Communications, 2024, 46, 101839.	6.3	0
1218	Nanotechnology and its impact on achieving sustainable architecture in Egypt. , 0, , .		0
1219	Polymeric composites in extrusionâ€based additive manufacturing: a systematic review. Polymer Composites, 0, , .	4.6	0
1220	Poly (ethylene-co-methacrylic acid) (PEMA) ionomers and their applications including self-healing and shape memory applications. Journal of Polymer Research, 2024, 31, .	2.4	0
1221	A state-of-the-art review and prospectives on the self-healing repair technology for asphalt materials. Construction and Building Materials, 2024, 421, 135660.	7.2	0