Michael R Kessler

List of Publications by Year
in descending order

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220	16,271	26630	17105
papers	citations	56 h-index	122 g-index

335	335	335	14566
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Autonomic healing of polymer composites. Nature, 2001, 409, 794-797.	27.8	3,747
2	Progress in Green Polymer Composites from Lignin for Multifunctional Applications: A Review. ACS Sustainable Chemistry and Engineering, 2014, 2, 1072-1092.	6.7	1,073
3	Self-healing structural composite materials. Composites Part A: Applied Science and Manufacturing, 2003, 34, 743-753.	7.6	672
4	Self-healing polymer nanocomposite materials: A review. Polymer, 2015, 69, 369-383.	3.8	575
5	Recent advances in vegetable oil-based polymers and their composites. Progress in Polymer Science, 2017, 71, 91-143.	24.7	497
6	In situ poly(urea-formaldehyde) microencapsulation of dicyclopentadiene. Journal of Microencapsulation, 2003, 20, 719-730.	2.8	398
7	Cure kinetics characterization and monitoring of an epoxy resin using DSC, Raman spectroscopy, and DEA. Composites Part A: Applied Science and Manufacturing, 2013, 49, 100-108.	7.6	343
8	Self-activated healing of delamination damage in woven composites. Composites Part A: Applied Science and Manufacturing, 2001, 32, 683-699.	7.6	290
9	Biobased Polyurethanes Prepared from Different Vegetable Oils. ACS Applied Materials & Interfaces, 2015, 7, 1226-1233.	8.0	264
10	Dynamic mechanical analysis of carbon/epoxy composites for structural pipeline repair. Composites Part B: Engineering, 2007, 38, 1-9.	12.0	244
11	Self-healing polymers and composites. International Materials Reviews, 2010, 55, 317-346.	19.3	215
12	Cure kinetics of the ring-opening metathesis polymerization of dicyclopentadiene. Journal of Polymer Science Part A, 2002, 40, 2373-2383.	2.3	184
13	Multifunctional Cyanate Ester Nanocomposites Reinforced by Hexagonal Boron Nitride after Noncovalent Biomimetic Functionalization. ACS Applied Materials & Interfaces, 2015, 7, 5915-5926.	8.0	177
14	Green Aqueous Surface Modification of Polypropylene for Novel Polymer Nanocomposites. ACS Applied Materials & Interfaces, 2014, 6, 9349-9356.	8.0	176
15	Processing and characterization of low-cost electrospun carbon fibers from organosolv lignin/polyacrylonitrile blends. Carbon, 2016, 100, 126-136.	10.3	166
16	Soy-castor oil based polyols prepared using a solvent-free and catalyst-free method and polyurethanes therefrom. Green Chemistry, 2013, 15, 1477.	9.0	153
17	Bio-renewable precursor fibers from lignin/polylactide blends for conversion to carbon fibers. Carbon, 2014, 68, 159-166.	10.3	151
18	Toughness Enhancement in ROMP Functionalized Carbon Nanotube/Polydicyclopentadiene Composites. Chemistry of Materials, 2008, 20, 7060-7068.	6.7	149

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19	Creep behavior of carbon fiber/epoxy matrix composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 421, 217-225.	5.6	139
20	Self-healing: A new paradigm in materials design. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2007, 221, 479-495.	1.3	138
21	Bio-inspired green surface functionalization of PMMA for multifunctional capacitors. RSC Advances, 2014, 4, 6677.	3.6	137
22	Analysis of a carbon composite overwrap pipeline repair system. International Journal of Pressure Vessels and Piping, 2008, 85, 782-788.	2.6	135
23	Bio-based Polyurethane Foam Made from Compatible Blends of Vegetable-Oil-based Polyol and Petroleum-based Polyol. ACS Sustainable Chemistry and Engineering, 2015, 3, 743-749.	6.7	132
24	Rheological Behavior of Environmentally Friendly Castor Oil-Based Waterborne Polyurethane Dispersions. Macromolecules, 2013, 46, 4606-4616.	4.8	128
25	Study of Physically Transient Insulating Materials as a Potential Platform for Transient Electronics and Bioelectronics. Advanced Functional Materials, 2014, 24, 4135-4143.	14.9	127
26	Dynamic mechanical analysis of fumed silica/cyanate ester nanocomposites. Composites Part A: Applied Science and Manufacturing, 2008, 39, 761-768.	7.6	126
27	Photoresponsive Liquid Crystalline Epoxy Networks with Shape Memory Behavior and Dynamic Ester Bonds. ACS Applied Materials & Interfaces, 2016, 8, 15750-15757.	8.0	123
28	Synthesis and Characterization of Melamineâ€Ureaâ€Formaldehyde Microcapsules Containing ENBâ€Based Selfâ€Healing Agents. Macromolecular Materials and Engineering, 2009, 294, 389-395.	3.6	118
29	Influence of cross-link density on the properties of ROMP thermosets. Polymer, 2009, 50, 1264-1269.	3.8	110
30	Effects of unsaturation and different ring-opening methods on the properties of vegetable oil-based polyurethane coatings. Polymer, 2014, 55, 1004-1011.	3.8	106
31	High bio-content polyurethane composites with urethane modified lignin as filler. Polymer, 2015, 69, 52-57.	3.8	105
32	Characterization and biodegradation behavior of bio-based poly(lactic acid) and soy protein blends for sustainable horticultural applications. Green Chemistry, 2015, 17, 380-393.	9.0	100
33	Characterization of diene monomers as healing agents for autonomic damage repair. Journal of Applied Polymer Science, 2006, 101, 1266-1272.	2.6	99
34	Matrices from vegetable oils, cashew nut shell liquid, and other relevant systems for biocomposite applications. Green Chemistry, 2014, 16, 1700-1715.	9.0	92
35	Polyurethanes from Solvent-Free Vegetable Oil-Based Polyols. ACS Sustainable Chemistry and Engineering, 2014, 2, 2465-2476.	6.7	88
36	Soft Elastomeric Capacitor Network for Strain Sensing Over Large Surfaces. IEEE/ASME Transactions on Mechatronics, 2013, 18, 1647-1654.	5.8	81

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37	Reduction of Epoxidized Vegetable Oils: A Novel Method to Prepare Bioâ€Based Polyols for Polyurethanes. Macromolecular Rapid Communications, 2014, 35, 1068-1074.	3.9	81
38	Directed Selfâ€Assembly of Gradient Concentric Carbon Nanotube Rings. Advanced Functional Materials, 2008, 18, 2114-2122.	14.9	77
39	Thermal and mechanical evaluation of cyanate ester composites with low-temperature processability. Composites Part A: Applied Science and Manufacturing, 2007, 38, 779-784.	7.6	76
40	Effect of silane structure on the properties of silanized multiwalled carbon nanotube-epoxy nanocomposites. Polymer, 2014, 55, 1854-1865.	3.8	76
41	Biorenewable thermosetting copolymer based on soybean oil and eugenol. European Polymer Journal, 2015, 69, 16-28.	5.4	76
42	Polymer Matrix Composites: A Perspective for a Special Issue of Polymer Reviews. Polymer Reviews, 2012, 52, 229-233.	10.9	73
43	Liquid crystalline epoxy resin based on biphenyl mesogen: Thermal characterization. Polymer, 2013, 54, 3017-3025.	3.8	73
44	Multifunctional PMMA-Ceramic composites as structural dielectrics. Polymer, 2010, 51, 5823-5832.	3.8	72
45	Polyurethanes from Isosorbideâ€Based Diisocyanates. ChemSusChem, 2013, 6, 1182-1185.	6.8	68
46	Cure kinetics of thermosetting bisphenol E cyanate ester. Journal of Thermal Analysis and Calorimetry, 2008, 93, 77-85.	3.6	66
47	Anionic waterborne polyurethane dispersion from a bio-based ionic segment. RSC Advances, 2014, 4, 35476-35483.	3.6	66
48	Multifunctional fiberglass-reinforced PMMA-BaTiO3 structural/dielectric composites. Polymer, 2011, 52, 2016-2024.	3.8	65
49	Influence of frequency and prestrain on the mechanical efficiency of dielectric electroactive polymer actuators. Materials Letters, 2006, 60, 3437-3440.	2.6	64
50	Novel low-cost hybrid composites from asphaltene/SBS tri-block copolymer with improved thermal and mechanical properties. Journal of Materials Science, 2016, 51, 2394-2403.	3.7	63
51	Preparation and characterization of whey protein isolate films reinforced with porous silica coated titania nanoparticles. Journal of Food Engineering, 2013, 117, 133-140.	5.2	62
52	Fabrication and Properties of Vegetableâ€Oilâ€Based Glass Fiber Composites by Ringâ€Opening Metathesis Polymerization. Macromolecular Materials and Engineering, 2008, 293, 979-990.	3.6	61
53	Renewable Polymers Prepared from Vanillin and Its Derivatives. Macromolecular Chemistry and Physics, 2015, 216, 1816-1822.	2.2	61
54	Carbon Fiber-Reinforced Cyanate Ester/Nano-ZrW₂O₈ Composites with Tailored Thermal Expansion. ACS Applied Materials & Interfaces, 2012, 4, 510-517.	8.0	59

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55	Antibacterial Soybeanâ€Oilâ€Based Cationic Polyurethane Coatings Prepared from Different Amino Polyols. ChemSusChem, 2012, 5, 2221-2227.	6.8	59
56	PMMA-g-SOY as a sustainable novel dielectric material. RSC Advances, 2014, 4, 18240.	3.6	59
57	Synthesis and Characterization of Methacrylated Eugenol as a Sustainable Reactive Diluent for a Maleinated Acrylated Epoxidized Soybean Oil Resin. ACS Sustainable Chemistry and Engineering, 2017, 5, 8876-8883.	6.7	59
58	Biodegradation behavior of bacterial-based polyhydroxyalkanoate (PHA) and DDGS composites. Green Chemistry, 2014, 16, 1911-1920.	9.0	57
59	Liquid crystalline epoxy networks with exchangeable disulfide bonds. Soft Matter, 2017, 13, 5021-5027.	2.7	56
60	The influence of cross-linking agents on ring-opening metathesis polymerized thermosets. Journal of Thermal Analysis and Calorimetry, 2007, 89, 459-464.	3.6	55
61	Ringâ€opening metathesis polymerization of a modified linseed oil with varying levels of crosslinking. Journal of Polymer Science Part A, 2008, 46, 6851-6860.	2.3	54
62	Photo-responsive liquid crystalline epoxy networks with exchangeable disulfide bonds. RSC Advances, 2017, 7, 37248-37254.	3.6	53
63	An efficient approach to prepare ether and amide-based self-catalyzed phthalonitrile resins. Polymer Chemistry, 2013, 4, 3617.	3.9	52
64	Biodegradation Behavior of Poly(lactic acid) (PLA)/Distillerâ€™s Dried Grains with Solubles (DDGS) Composites. ACS Sustainable Chemistry and Engineering, 2014, 2, 2699-2706.	6.7	52
65	Biorenewable polymers based on acrylated epoxidized soybean oil and methacrylated vanillin. Materials Today Communications, 2015, 5, 18-22.	1.9	51
66	Novel Composites from Ecoâ€Friendly Soy Flour/SBS Triblock Copolymer. Macromolecular Materials and Engineering, 2014, 299, 953-958.	3.6	50
67	Thermal analysis of ring-opening metathesis polymerized healing agents. Journal of Polymer Science, Part B: Polymer Physics, 2007, 45, 1771-1780.	2.1	49
68	Kinetics of bulk azide/alkyne â€œclickâ€•polymerization. Journal of Polymer Science Part A, 2010, 48, 4093-4102.	2.3	48
69	Oxidation Behavior of Multiwalled Carbon Nanotubes Fluidized with Ozone. ACS Applied Materials & Interfaces, 2014, 6, 1835-1842.	8.0	47
70	Synthesis and Characterization of AN-g-SOY for Sustainable Polymer Composites. ACS Sustainable Chemistry and Engineering, 2014, 2, 2454-2460.	6.7	46
71	Controlled Shape Memory Behavior of a Smectic Main-Chain Liquid Crystalline Elastomer. Macromolecules, 2015, 48, 2864-2874.	4.8	45
72	Glass fiber reinforced ROMP-based bio-renewable polymers: Enhancement of the interface with silane coupling agents. Composites Science and Technology, 2012, 72, 1264-1272.	7.8	44

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73	Zirconium Tungstate/Epoxy Nanocomposites: Effect of Nanoparticle Morphology and Negative Thermal Expansivity. ACS Applied Materials & Interfaces, 2013, 5, 9478-9487.	8.0	44
74	Thermal expansion of fumed silica/cyanate ester nanocomposites. Journal of Applied Polymer Science, 2008, 109, 647-653.	2.6	43
75	Effect of functionalized MWCNTs on the thermo-mechanical properties of poly(5-ethylidene-2-norbornene) composites produced by ring-opening metathesis polymerization. Carbon, 2009, 47, 2406-2412.	10.3	41
76	A comparison of crystallization behavior for melt and cold crystallized poly (l-Lactide) using rapid scanning rate calorimetry. Polymer, 2010, 51, 4611-4618.	3.8	40
77	Rheology and curing kinetics of fumed silica/cyanate ester nanocomposites. Polymer Engineering and Science, 2008, 48, 875-883.	3.1	39
78	Thermoâ€Mechanical and Antibacterial Properties of Soybean Oilâ€Based Cationic Polyurethane Coatings: Effects of Amine Ratio and Degree of Crosslinking. Macromolecular Materials and Engineering, 2014, 299, 1042-1051.	3.6	39
79	Zirconium tungstate/cyanate ester nanocomposites with tailored thermal expansivity. Composites Science and Technology, 2011, 71, 1385-1391.	7.8	38
80	Polyols and polyurethanes prepared from epoxidized soybean oil ringâ€opened by polyhydroxy fatty acids with varying OH numbers. Journal of Applied Polymer Science, 2015, 132, .	2.6	38
81	Thermosetting polymers from renewable sources. Polymer International, 2021, 70, 167-180.	3.1	38
82	Rheokinetics of ring-opening metathesis polymerization of norbornene-based monomers intended for self-healing applications. Polymer Engineering and Science, 2006, 46, 1804-1811.	3.1	37
83	Adhesive repair of bismaleimide/carbon fiber composites with bisphenol E cyanate ester. Composites Science and Technology, 2011, 71, 239-245.	7.8	36
84	Bisphenol E cyanate ester as a novel resin for repairing BMI/carbon fiber composites: Influence of cure temperature on adhesive bond strength. Polymer, 2013, 54, 3994-4002.	3.8	36
85	Degradation of ROMP-based bio-renewable polymers by UV radiation. Polymer Degradation and Stability, 2013, 98, 2357-2365.	5.8	36
86	Injection repair of carbon fiber/bismaleimide composite panels with bisphenol E cyanate ester resin. Composites Science and Technology, 2014, 100, 174-181.	7.8	36
87	Supercritical carbon dioxide-assisted silanization of multi-walled carbon nanotubes and their effect on the thermo-mechanical properties of epoxy nanocomposites. Polymer, 2014, 55, 4156-4163.	3.8	35
88	Novel Rubbers from the Cationic Copolymerization of Soybean Oils and Dicyclopentadiene, 2 â€“ Mechanical and Damping Properties. Macromolecular Materials and Engineering, 2009, 294, 472-483.	3.6	34
89	Rheokinetic evaluation of self-healing agents polymerized by Grubbs catalyst embedded in various thermosetting systems. Composites Science and Technology, 2009, 69, 2102-2107.	7.8	34
90	Influence of adsorbed moisture on the properties of cyanate ester/BaTiO3 composites. Composites Part A: Applied Science and Manufacturing, 2009, 40, 1266-1271.	7.6	33

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91	Asphaltene: structural characterization, molecular functionalization, and application as a low-cost filler in epoxy composites. RSC Advances, 2015, 5, 24264-24273.	3.6	33
92	Liquid crystalline epoxy resin based on biphenyl mesogen: Effect of magnetic field orientation during cure. Polymer, 2013, 54, 5741-5746.	3.8	32
93	Creep-resistant behavior of self-reinforcing liquid crystalline epoxy resins. Polymer, 2014, 55, 2021-2027.	3.8	32
94	Soybeanâ€Oilâ€Based Thermosetting Resins with Methacrylated Vanillyl Alcohol as Bioâ€Based, Lowâ€Viscosity Comonomer. Macromolecular Materials and Engineering, 2018, 303, 1700278.	3.6	32
95	Isothermal cure characterization of dicyclopentadiene. Journal of Thermal Analysis and Calorimetry, 2007, 89, 453-457.	3.6	31
96	Bio-based reactive diluents as sustainable replacements for styrene in MAESO resin. RSC Advances, 2018, 8, 13780-13788.	3.6	31
97	Pultruded glass fiber/bio-based polymer: Interface tailoring with silane coupling agent. Composites Part A: Applied Science and Manufacturing, 2014, 65, 83-90.	7.6	30
98	Synthesis and characterization of phthalonitrile resins from ortho -linked aromatic and heterocyclic monomers. Polymer International, 2014, 63, 465-469.	3.1	29
99	Cure characterization of soybean oilâ€”Styreneâ€”Divinylbenzene thermosetting copolymers. Journal of Applied Polymer Science, 2009, 113, 1042-1049.	2.6	28
100	Low viscosity cyanate ester resin for the injection repair of hole-edge delaminations in bismaleimide/carbon fiber composites. Composites Part A: Applied Science and Manufacturing, 2013, 52, 31-37.	7.6	28
101	Multifunctional Properties of Cyanate Ester Composites with SiO₂ Coated Fe₃O₄ Fillers. ACS Applied Materials & Interfaces, 2013, 5, 1636-1642.	8.0	28
102	Free radical induced graft copolymerization of ethyl acrylate onto SOY for multifunctional materials. Materials Today Communications, 2014, 1, 34-41.	1.9	28
103	Dielectric response of PTFE and ETFE wiring insulation to thermal exposure. IEEE Transactions on Dielectrics and Electrical Insulation, 2010, 17, 1234-1241.	2.9	27
104	Modeling the interphase of a polymer-based nanodielectric. IEEE Transactions on Dielectrics and Electrical Insulation, 2014, 21, 488-496.	2.9	26
105	Rheology and dynamic mechanical analysis of bisphenol E cyanate ester/alumina nanocomposites. Polymer Engineering and Science, 2010, 50, 302-311.	3.1	25
106	Statistical analysis of electrical breakdown behavior of polyimide following degrading processes. IEEE Transactions on Dielectrics and Electrical Insulation, 2011, 18, 1955-1962.	2.9	24
107	Degradation kinetics of polyimide film. High Performance Polymers, 2011, 23, 335-342.	1.8	24
108	Tung oilâ€based thermosetting polymers for selfâ€healing applications. Journal of Applied Polymer Science, 2014, 131, .	2.6	24

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109	Novel bio-based composites of polyhydroxyalkanoate (PHA)/distillers dried grains with solubles (DDGS). RSC Advances, 2014, 4, 39802-39808.	3.6	23
110	in situ synthesis of biopolyurethane nanocomposites reinforced with modified multiwalled carbon nanotubes. Journal of Applied Polymer Science, 2015, 132, .	2.6	23
111	Synthesis and Preparation of Bioâ€Based ROMP Thermosets from Functionalized Renewable Isosorbide Derivative. Macromolecular Chemistry and Physics, 2016, 217, 871-879.	2.2	23
112	Degradation kinetics of polytetrafluoroethylene and poly(ethylene-alt-tetrafluoroethylene). High Performance Polymers, 2013, 25, 535-542.	1.8	22
113	Effect of TiO 2 nanoparticles on thermo-mechanical properties of cast zein protein films. Food Packaging and Shelf Life, 2017, 13, 35-43.	7.5	22
114	Bioâ€Based Rubbers by Concurrent Cationic and Ringâ€Opening Metathesis Polymerization of a Modified Linseed Oil. Macromolecular Materials and Engineering, 2009, 294, 756-761.	3.6	21
115	Effect of a Zirconium Tungstate Filler on the Cure Behavior of a Cyanate Ester Resin. ACS Applied Materials & Interfaces, 2009, 1, 1190-1195.	8.0	21
116	Highâ€performance thermosets with tailored properties derived from methacrylated eugenol and epoxyâ€based vinyl ester. Polymer International, 2018, 67, 544-549.	3.1	21
117	Creep behavior of bisphenol E cyanate ester/alumina nanocomposites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 5892-5899.	5.6	19
118	The effects of alumina and silica nanoparticles on the cure kinetics of bisphenol E cyanate ester. Polymer Engineering and Science, 2010, 50, 1075-1084.	3.1	19
119	Evaluation of different catalyst systems for bulk polymerization through â€œclickâ€•chemistry. Polymer, 2011, 52, 4435-4441.	3.8	19
120	Novel Si/cyanate ester nanocomposites with multifunctional properties. Composites Science and Technology, 2012, 72, 1692-1696.	7.8	19
121	Latent catalytic systems for ring-opening metathesis-based thermosets. Journal of Thermal Analysis and Calorimetry, 2009, 96, 705-713.	3.6	18
122	Enhanced bulk catalyst dissolution for self-healing materials. Journal of Materials Chemistry, 2010, 20, 4198.	6.7	18
123	Rheokinetics of Ring-Opening Metathesis Polymerization of Bio-Based Castor Oil Thermoset. Macromolecules, 2012, 45, 7729-7739.	4.8	18
124	Interfacial treatment effects on behavior of soft nano-composites for highly stretchable dielectrics. Polymer, 2014, 55, 4531-4537.	3.8	18
125	Silanized-silicon/epoxy nanocomposites for structural capacitors with enhanced electrical energy storage capability. Composites Science and Technology, 2015, 121, 34-40.	7.8	18
126	Additive Manufacturing With Conductive, Viscoelastic Polymer Composites: Direct-Ink-Writing of Electrolytic and Anodic Poly(Ethylene Oxide) Composites. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2017, 139, .	2.2	17

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127	Cure characterization and viscosity development of ring-opening metathesis polymerized resins. Journal of Thermal Analysis and Calorimetry, 2006, 85, 7-12.	3.6	16
128	Modified Rheokinetic Technique to Enhance the Understanding of Microcapsule-Based Self-Healing Polymers. ACS Applied Materials & Interfaces, 2012, 4, 1831-1837.	8.0	16
129	Absorptive viscoelastic coatings for full field vibration coverage measurement in vibrothermography. NDT and E International, 2016, 82, 56-61.	3.7	16
130	Zirconium tungstate reinforced cyanate ester composites with enhanced dimensional stability. Journal of Materials Research, 2009, 24, 2235-2242.	2.6	15
131	Microencapsulation of self-healing agents with melamine-urea-formaldehyde by the Shirasu porous glass (SPG) emulsification technique. Macromolecular Research, 2011, 19, 1056-1061.	2.4	15
132	Thermal analysis of phase transitions in perovskite electroceramics. Journal of Thermal Analysis and Calorimetry, 2014, 115, 587-593.	3.6	15
133	Semi-interpenetrating polymer networks prepared from in situ cationic polymerization of bio-based tung oil with biodegradable polycaprolactone. RSC Advances, 2014, 4, 6710.	3.6	15
134	Biorenewable ROMP-based thermosetting copolymers from functionalized castor oil derivative with various cross-linking agents. Polymer, 2014, 55, 5718-5726.	3.8	15
135	Anisotropic buckypaper through shear-induced mechanical alignment of carbon nanotubes in water. Carbon, 2014, 80, 433-439.	10.3	15
136	Evaluation of Norbornene-Based Adhesives to Amine-Cured Epoxy for Self-Healing Applications. Macromolecular Materials and Engineering, 2011, 296, 965-972.	3.6	14
137	Thermomagnetic Processing of Liquid-Crystalline Epoxy Resins and Their Mechanical Characterization Using Nanoindentation. ACS Applied Materials & Interfaces, 2014, 6, 19456-19464.	8.0	14
138	Shear thinning behavior of aqueous alumina nanoparticle suspensions with saccharides. Ceramics International, 2014, 40, 3533-3542.	4.8	14
139	Cure characterization of the ringâ€opening metathesis polymerization of linseed oilâ€based thermosetting resins. Polymer International, 2009, 58, 738-744.	3.1	13
140	Enhanced Reaction Kinetics and Impact Strength of Cyanate Ester Reinforced with Multiwalled Carbon Nanotubes. Journal of Nanoscience and Nanotechnology, 2011, 11, 3970-3978.	0.9	13
141	Epoxy Composites Reinforced with Negativeâ€CTE ZrW₂O₈ Nanoparticles for Electrical Applications. Macromolecular Materials and Engineering, 2013, 298, 136-144.	3.6	13
142	Cure kinetics of liquid crystalline epoxy resins based on biphenyl mesogen. Journal of Thermal Analysis and Calorimetry, 2014, 117, 481-488.	3.6	13
143	Impact of Chemical Treatment and the Manufacturing Process on Mechanical, Thermal, and Rheological Properties of Natural Fibers-Based Composites. , 2017, , 225-252.		13
144	Combined light- and heat-induced shape memory behavior of anthracene-based epoxy elastomers. Scientific Reports, 2020, 10, 20214.	3.3	13

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145	Three-phase cyanate ester composites with fumed silica and negative-CTE reinforcements. Journal of Thermal Analysis and Calorimetry, 2008, 93, 87-93.	3.6	12
146	Synthesis, processing, and characterization of negative thermal expansion zirconium tungstate nanoparticles with different morphologies. Materials Chemistry and Physics, 2011, 131, 12-17.	4.0	12
147	Effect of Hydrothermal Synthesis Conditions on the Morphology and Negative Thermal Expansivity of Zirconium Tungstate Nanoparticles. Journal of the American Ceramic Society, 2012, 95, 3643-3650.	3.8	12
148	Activation energy for diffusion and welding of PLA films. Polymer Engineering and Science, 2012, 52, 1693-1700.	3.1	12
149	Tailoring the toughness and CTE of high temperature bisphenol E cyanate ester (BECy) resin. EXPRESS Polymer Letters, 2014, 8, 336-344.	2.1	12
150	Processing and characterization of bioâ€based poly (hydroxyalkanoate)/poly(amide) blends: Improved flexibility and impact resistance of PHAâ€based plastics. Journal of Applied Polymer Science, 2015, 132, .	2.6	12
151	Biorenewable polymer composites from tall oilâ€based polyamide and ligninâ€cellulose fiber. Journal of Applied Polymer Science, 2015, 132, .	2.6	12
152	Synthesis of renewable isosorbide-based monomer and preparation of the corresponding thermosets. Chinese Chemical Letters, 2016, 27, 875-878.	9.0	12
153	Liquid crystalline networks based on photo-initiated thiolâ€“ene click chemistry. Soft Matter, 2020, 16, 1760-1770.	2.7	12
154	A Novel Microwaveâ€Assisted Carbothermic Route for the Production of Copperâ€Carbon Nanotube Metal Matrix Composites Directly from Copper Oxide. Advanced Engineering Materials, 2013, 15, 366-372.	3.5	11
155	Synthesis, characterization, and functionalization of <scp>zirconium tungstate</scp> (<scp>ZrW₂O₈</scp>) nanoâ€rods for advanced polymer nanocomposites. Polymers for Advanced Technologies, 2017, 28, 1375-1381.	3.2	11
156	Okra Bast Fiber as Potential Reinforcement Element of Biocomposites: Can It Be the Flax of the Future?. , 2017, , 379-405.		11
157	Functional liquid crystalline epoxy networks and composites: from materials design to applications. International Materials Reviews, 2022, 67, 201-229.	19.3	11
158	Influence of thermal degradation and saline exposure on dielectric permittivity of polyimide. Journal of Physics and Chemistry of Solids, 2011, 72, 875-881.	4.0	10
159	Effect of PEGDE addition on rheological and mechanical properties of bisphenol E cyanate ester. Journal of Applied Polymer Science, 2013, 130, 463-469.	2.6	10
160	Sustainable Materials for a Horticultural Application. Plastics Engineering, 2014, 70, 44-52.	0.0	10
161	Unexpected Tackifiers from Isosorbide. ChemSusChem, 2015, 8, 448-451.	6.8	10
162	Dynamics of poly(methyl methacrylate)â€“montmorillonite nanocomposites: A dielectric study. Journal of Non-Crystalline Solids, 2015, 410, 43-50.	3.1	10

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163	Evaluation of Carbon/Epoxy Composites for Structural Pipeline Repair. , 2004, , 1427.		9
164	Electrothermal lifetime prediction of polyimide wire insulation with application to aircraft. Journal of Applied Polymer Science, 2013, 130, 1639-1644.	2.6	9
165	Rare Earth Triflate Initiators in the Cationic Polymerization of Tung Oilâ€Based Thermosetting Polymers for Selfâ€Healing Applications. Macromolecular Materials and Engineering, 2014, 299, 1062-1069.	3.6	9
166	Plant Oil-Based Polyurethanes. , 2016, , 37-54.		9
167	Investigation of the effect of clay nanoparticles on the thermal behavior of PLA using a heat flux rapid scanning rate calorimeter. Polymer Testing, 2014, 35, 1-9.	4.8	8
168	Rapid room-temperature polymerization of bio-based multiaziridine-containing compounds. RSC Advances, 2015, 5, 1557-1563.	3.6	8
169	Selfâ€Metathesis of 10â€Undecenâ€1â€Ol with Ruâ€Amineâ€Based Complex for Preparing the Soft Segment and Chain Extender of Novel Castor Oilâ€Based Polyurethanes. Macromolecular Symposia, 2016, 368, 30-39.	0.7	8
170	Preparation of Nanoscale Semi-IPNs with an Interconnected Microporous Structure via Cationic Polymerization of Bio-Based Tung Oil in a Homogeneous Solution of Poly(Îµ-caprolactone). ACS Omega, 2020, 5, 9977-9984.	3.5	8
171	A Laboratory To Demonstrate the Effect of Thermal History on Semicrystalline Polymers Using Rapid Scanning Rate Differential Scanning Calorimetry. Journal of Chemical Education, 2010, 87, 1396-1398.	2.3	7
172	Manufacturing PDMS micro lens array using spin coating under a multiphase system. Journal of Micromechanics and Microengineering, 2017, 27, 055012.	2.6	7
173	Sustainable Polyurethaneâ€“Lignin Aqueous Dispersions and Thin Films: Rheological Behavior and Thermomechanical Properties. ACS Applied Polymer Materials, 2020, 2, 5198-5207.	4.4	7
174	Rubbers Based on Conjugated Soybean Oil: Synthesis and Characterization. Macromolecular Materials and Engineering, 2011, 296, 444-454.	3.6	6
175	Influence of crosslinking density on the tribological behavior of norbornene-based polymeric materials. Wear, 2011, 270, 550-554.	3.1	6
176	High Temperature Physical and Chemical Stability and Oxidation Reaction Kinetics of Niâ€“Cr Nanoparticles. Journal of Physical Chemistry C, 2017, 121, 4018-4028.	3.1	6
177	Loss modulus measurement of a viscoelastic polymer at acoustic and ultrasonic frequencies using vibrothermography. Measurement: Journal of the International Measurement Confederation, 2021, 168, 108311.	5.0	6
178	Ultrasonic and impulse welding of polylactic acid films. Polymer Engineering and Science, 2011, 51, 1059-1067.	3.1	5
179	Ferrogels : Smart Materials for Biomedical and Remediation Applications. , 2017, , 561-579.		5
180	Cyanate esterâ€“alumina nanoparticle suspensions: Effect of alumina concentration on viscosity and cure behavior. Polymer Engineering and Science, 2011, 51, 1409-1417.	3.1	4

#	Article	IF	Citations
181	Influence of Electron Beam Irradiation on the Mechanical Properties of Vegetableâ€Oilâ€Based Biopolymers. Macromolecular Materials and Engineering, 2012, 297, 799-806.	3.6	4
182	Composition-dependent fracture toughness of ROMP-based Dilulin/dicyclopentadiene copolymers. Journal of Materials Science, 2014, 49, 4880-4890.	3.7	4
183	Utilizing Wide Band Gap, High Dielectric Constant Nanoparticles as Additives in Organic Solar Cells. Journal of Physical Chemistry C, 2015, 119, 23883-23889.	3.1	4
184	Catalytic Conversion of Biomass-Derived 1,2-Propanediol to Propylene Oxide over Supported Solid-Base Catalysts. ACS Omega, 2018, 3, 8718-8723.	3.5	4
185	Rupture Testing of A-106, Grade B Steel Pipes Repaired With Carbon/Epoxy Composites. , 2004, , 175.		3
186	Self-healing composites. , 2008, , 650-673.		3
187	On the nanoparticle interphase. , 2012, , .		3
188	Broadband Dielectric Relaxation Spectroscopy of Functionalized Biobased Castor Oil Copolymer Thermosets. Macromolecular Chemistry and Physics, 2013, 214, 2891-2902.	2.2	3
189	Liquid Crystalline Epoxy Resins. , 2016, , 1-17.		3
190	Biopolyamides and High-Performance Natural Fiber-Reinforced Biocomposites. , 2017, , 253-270.		3
191	Multiscale Structural Characterization of a Smectic Liquid Crystalline Elastomer upon Mechanical Deformation Using Neutron Scattering. Macromolecules, 2021, 54, 10574-10582.	4.8	3
192	Fully Eugenolâ€Based Epoxy Thermosets: Synthesis, Curing, and Properties. Macromolecular Materials and Engineering, 2022, 307, .	3.6	3
193	Synthesis and characterization of melamine-urea-formaldehyde microcapsules containing ENB-based self-healing agents. Proceedings of SPIE, 2007, , .	0.8	2
194	Dielectric Properties of PTFE Wiring Insulation as a Function of Thermal Exposure. , 2008, , .		2
195	Dielectric properties of ETFE wiring insulation as a function of thermal exposure. , 2009, , .		2
196	Dielectric response of polyimide to thermal and saline degradation. , 2010, , .		2
197	Dielectric properties of cyanate ester/silicon nanocomposites for multifunctional structural capacitors. , 2012, , .		2
198	Dielectric spectroscopy for biorenewable plant oil-based polyurethane. , 2014, , .		2

#	Article	IF	Citations
199	Peel and shear strength and tear resistance of ultrasonically sealed coextruded polyolefin films for packaging applications. Welding in the World, Le Soudage Dans Le Monde, 2014, 58, 619-636.	2.5	2
200	Lignocellulosic Fibers Composites: An Overview. , 2017, , 293-308.		2
201	Static characterization of a soft elastomeric capacitor for non destructive evaluation applications. , 2014, , .		1
202	The Effect of Gamma Radiation on Biodegradability of Natural Fiber/PP-HMSPP Foams: A Study of Thermal Stability and Biodegradability. , 2017, , 339-353.		1
203	Rheokinetic evaluation of self-healing agents polymerized by Grubbs catalyst embedded in various thermosetting systems. Proceedings of SPIE, 2007, , .	0.8	0
204	Inside Front Cover: Directed Selfâ€Assembly of Gradient Concentric Carbon Nanotube Rings (Adv. Funct.) Tj ETQq0 0 0 rgBT /Overlock 1	14.9	0
205	Adhesion strength of norbornene-based self-healing agents to an amine-cured epoxy. Proceedings of SPIE, 2009, , .	0.8	0
206	Microencapsulation of self-healing agents with melamine-urea-formaldehyde by the Shirasu Porous Glass (SPG) emulsification technique. , 2009, , .		0
207	Dielectric and mechanical properties of polyimide-barium titanate nanocomposites. , 2012, , .		0
208	Special Chapter on State-of-the-art Advances in Thermal Analysis and Calorimetry. Journal of Thermal Analysis and Calorimetry, 2012, 109, 1091-1094.	3.6	0
209	Silicon/epoxy nanocomposites for capacitors as the energy storage element. , 2013, , .		0
210	Enhanced polymer nanocomposites for condition assessment of wind turbine blades. , 2013, , .		0
211	A case study of the effects of a resident scientist on teaching experimental design to high school chemistry students. , 2014, , .		0
212	Recent Advances in Conductive Composites Based on Biodegradable Polymers for Regenerative Medicine Applications. , 2017, , 519-542.		0
213	Poly (ethylene-terephthalate) Reinforced with Hemp Fibers: Elaboration, Characterization, and Potential Applications. , 2017, , 43-68.		0
214	PLA Nanocomposites: A Promising Material for Future from Renewable Resources. , 0, , 259-274.		0
215	Laboratory Experiments In Thermal Analysis Of Polymers For A Senior/Graduate Level Materials Science Course. , 0, , .		0
216	Air Rocket Thrust Experiment Involving Computerized Data Acquisition, Calibration, And Uncertainty Analysis. , 0, , .		0

#	Article	IF	Citations
217	Enhancing Interdisciplinary Interactions In The College Of Engineering And Natural Sciences: Year I. , 0, , .		0
218	Material Advantage At Iowa State: A Case Study For Student Pre Professional Society Success. , 0, , .		0
219	Iowa State University SYMBI GK-12 Program: A Case Study of the Resident Engineer's Effects on Eighth Graders' Attitudes Toward Science and Engineering. , 0, , .		0
220	A MATERIALS ENGINEERâ€™S APPROACH TO EXPLAINING SCIENTIFIC PROBLEMS IN AN 8TH GRADE CLASSROOM: A CASE STUDY. , 0, , .		0