Hatsuo Ishida

List of Publications by Year
in descending order

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308 papers	21,269 citations	5876 81 h-index	13338 130 g-index
311 all docs	311 docs citations	311 times ranked	7572 citing authors

#	Article	IF	Citations
1	Phenolic materials via ring-opening polymerization: Synthesis and characterization of bisphenol-A based benzoxazines and their polymers. Journal of Polymer Science Part A, 1994, 32, 1121-1129.	2.5	894
2	Physical and mechanical characterization of near-zero shrinkage polybenzoxazines. Journal of Polymer Science, Part B: Polymer Physics, 1996, 34, 1019-1030.	2.4	712
3	A Study on the Volumetric Expansion of Benzoxazine-Based Phenolic Resin. Macromolecules, 1997, 30, 1099-1106.	2.2	477
4	The structure of Î³-aminopropyltriethoxysilane on glass surfaces. Journal of Colloid and Interface Science, 1980, 74, 396-404.	5.0	427
5	Mechanical characterization of copolymers based on benzoxazine and epoxy. Polymer, 1996, 37, 4487-4495.	1.8	418
6	Very high thermal conductivity obtained by boron nitride-filled polybenzoxazine. Thermochimica Acta, 1998, 320, 177-186.	1.2	407
7	Spectroscopic Studies of Poly[N,N'-bis(phenoxyphenyl)pyromellitimide]. 1. Structures of the Polyimide and Three Model Compounds. Macromolecules, 1980, 13, 826-834.	2.2	356
8	General Approach to Nanocomposite Preparation. Chemistry of Materials, 2000, 12, 1260-1267.	3.2	341
9	Phenolic materials via ring-opening polymerization of benzoxazines: Effect of molecular structure on mechanical and dynamic mechanical properties. Journal of Polymer Science, Part B: Polymer Physics, 1994, 32, 921-927.	2.4	275
10	A review of recent progress in the studies of molecular and microstructure of coupling agents and their functions in composites, coatings and adhesive joints. Polymer Composites, 1984, 5, 101-123.	2.3	261
11	Structural effects of phenols on the thermal and thermo-oxidative degradation of polybenzoxazines. Polymer, 1999, 40, 4365-4376.	1.8	233
12	Comparison among Several Numerical Integration Methods for Kramers-Kronig Transformation. Applied Spectroscopy, 1988, 42, 952-957.	1.2	232
13	Molecular characterization of the polymerization of acetylene-functional benzoxazine resins. Polymer, 1999, 40, 1815-1822.	1.8	215
14	Synthesis and properties of a new crosslinkable polymer containing benzoxazine moiety in the main chain. Polymer, 2006, 47, 7664-7669.	1.8	211
15	Overview and Historical Background of Polybenzoxazine Research. , 2011, , 3-81.		206
16	A Study on Hydrogen-Bonded Network Structure of Polybenzoxazines. Journal of Physical Chemistry A, 2002, 106, 3271-3280.	1.1	203
17	Reaction of benzoxazine-based phenolic resins with strong and weak carboxylic acids and phenols as catalysts. Journal of Polymer Science Part A, 1999, 37, 1913-1921.	2.5	202
18	Thermal study on the copolymers of phthalonitrile and phenylnitrile-functional benzoxazines. Journal of Applied Polymer Science, 1999, 73, 2937-2949.	1.3	200

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19	Synthesis and characterization of maleimide and norbornene functionalized benzoxazines. Polymer, 2005, 46, 5588-5595.	1.8	200
20	Oxazine Ring-Related Vibrational Modes of Benzoxazine Monomers Using Fully Aromatically Substituted, Deuterated, ¹⁵N Isotope Exchanged, and Oxazine-Ring-Substituted Compounds and Theoretical Calculations. Journal of Physical Chemistry A, 2017, 121, 6269-6282.	1.1	198
21	An Investigation of Hydrogen Bonding in Benzoxazine Dimers by Fast Magic-Angle Spinning and Double-Quantum1H NMR Spectroscopy. Journal of the American Chemical Society, 1998, 120, 11784-11795.	6.6	197
22	Natural-sourced benzoxazine resins, homopolymers, blends and composites: A review of their synthesis, manufacturing and applications. Progress in Polymer Science, 2019, 99, 101168.	11.8	177
23	Cationic Ring-Opening Polymerization of 1,3-Benzoxazines: Mechanistic Study Using Model Compounds. Macromolecules, 2010, 43, 4562-4572.	2.2	176
24	A Smart Latent Catalyst Containing o-Trifluoroacetamide Functional Benzoxazine: Precursor for Low Temperature Formation of Very High Performance Polybenzoxazole with Low Dielectric Constant and High Thermal Stability. Macromolecules, 2017, 50, 6552-6560.	2.2	172
25	Development and characterization of high-performance polybenzoxazine composites. Polymer Composites, 1996, 17, 710-719.	2.3	171
26	Mechanistic study on the thermal decomposition of polybenzoxazines: Effects of aliphatic amines. Journal of Polymer Science, Part B: Polymer Physics, 1998, 36, 1935-1946.	2.4	167
27	Thermal decomposition processes in aromatic amine-based polybenzoxazines investigated by TGA and GCâ€“MS. Polymer, 2002, 43, 4391-4402.	1.8	163
28	Concentration-Dependent Conformation of Alkyl Tail in the Nanoconfined Space:Â Hexadecylamine in the Silicate Galleries. Langmuir, 2003, 19, 2479-2484.	1.6	162
29	Improved thermal and mechanical properties of polybenzoxazines based on alkyl-substituted aromatic amines. Journal of Polymer Science, Part B: Polymer Physics, 2000, 38, 3289-3301.	2.4	161
30	Fourier transform infrared spectroscopic study of the silane coupling agent/porous silica interface. Journal of Colloid and Interface Science, 1978, 64, 555-564.	5.0	158
31	Synthesis and Properties of New Thermoplastic Polymers from Substituted 3,4-Dihydro-2H-1,3-benzoxazines. Macromolecules, 2000, 33, 2839-2847.	2.2	156
32	Synthesis and characterization of polyfunctional naphthoxazines and related polymers. Journal of Applied Polymer Science, 1996, 61, 1595-1605.	1.3	155
33	Synthesis, characterization, and properties of new thermally curable polyetheresters containing benzoxazine moieties in the main chain. Journal of Polymer Science Part A, 2008, 46, 414-420.	2.5	153
34	Use of renewable resource vanillin for the preparation of benzoxazine resin and reactive monomeric surfactant containing oxazine ring. Polymer, 2014, 55, 1443-1451.	1.8	153
35	Fourier transform infrared spectroscopic study of the structure of silane coupling agent on E-glass fiber. Journal of Colloid and Interface Science, 1978, 64, 565-576.	5.0	152
36	Synthesis and Characterization of Highly Fluorinated Polymer with the Benzoxazine Moiety in the Main Chain. Macromolecules, 2008, 41, 9704-9714.	2.2	152

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37	Carbon Aerogels with Excellent CO₂ Adsorption Capacity Synthesized from Clay-Reinforced Biobased Chitosan-Polybenzoxazine Nanocomposites. ACS Sustainable Chemistry and Engineering, 2016, 4, 1286-1295.	3.2	152
38	Regioselectivity and Network Structure of Difunctional Alkyl-Substituted Aromatic Amine-Based Polybenzoxazines. Macromolecules, 2000, 33, 8149-8157.	2.2	151
39	Thermal properties of phthalonitrile functional polybenzoxazines. Thermochimica Acta, 2000, 357-358, 195-203.	1.2	148
40	Physical and mechanical properties of flexible polybenzoxazine resins: Effect of aliphatic diamine chain length. Journal of Applied Polymer Science, 2006, 101, 2798-2809.	1.3	146
41	Poly(aryl-ether-ether-ketone) and its advanced composites: A review. Polymer Composites, 1987, 8, 57-73.	2.3	141
42	Biobased chitosan hybrid aerogels with superior adsorption: Role of graphene oxide in CO2 capture. RSC Advances, 2013, 3, 16011.	1.7	141
43	Synthesis of linear polymers containing benzoxazine moieties in the main chain with high molecular design versatility via click reaction. Polymer, 2009, 50, 382-390.	1.8	139
44	1,3,5-Triphenylhexahydro-1,3,5-triazine - active intermediate and precursor in the novel synthesis of benzoxazine monomers and oligomers. Macromolecular Chemistry and Physics, 1999, 200, 1745-1752.	1.1	133
45	Surface induced crystallization in ultrahigh-modulus polyethylene fiber-reinforced polyethylene composites. Macromolecules, 1991, 24, 3569-3577.	2.2	130
46	Dynamic mechanical and thermal characterization of high-performance polybenzoxazines. Journal of Polymer Science, Part B: Polymer Physics, 1999, 37, 3257-3268.	2.4	126
47	A new synthetic approach for difficult benzoxazines: Preparation and polymerization of 4,4â€²-diaminodiphenyl sulfone-based benzoxazine monomer. Polymer, 2009, 50, 5940-5944.	1.8	125
48	Asymmetric Mono-oxazine:Â An Inevitable Product from Mannich Reaction of Benzoxazine Dimers. Journal of the American Chemical Society, 2001, 123, 9947-9955.	6.6	123
49	Bis(benzoxazine-maleimide)s as a novel class of high performance resin: Synthesis and properties. European Polymer Journal, 2010, 46, 354-363.	2.6	121
50	Primary Amine-Functional Benzoxazine Monomers and Their Use for Amide-Containing Monomeric Benzoxazines. Macromolecules, 2010, 43, 2748-2758.	2.2	119
51	Benzoxazole Resin: A Novel Class of Thermoset Polymer via Smart Benzoxazine Resin. Macromolecules, 2012, 45, 8991-8997.	2.2	118
52	Molecular origin of unusual physical and mechanical properties in novel phenolic materials based on benzoxazine chemistry. Journal of Applied Polymer Science, 1998, 70, 1299-1306.	1.3	117
53	Benzoxazine Oligomers:Â Evidence for a Helical Structure from Solid-State NMR Spectroscopy and DFT-Based Dynamics and Chemical Shift Calculations. Journal of the American Chemical Society, 2003, 125, 5792-5800.	6.6	116
54	Smart, Sustainable, and Ecofriendly Chemical Design of Fully Bioâ€Based Thermally Stable Thermosets Based on Benzoxazine Chemistry. ChemSusChem, 2016, 9, 1921-1928.	3.6	116

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55	A fourier-transform infrared spectroscopic study of the hydrolytic stability of silane coupling agents on E-glass fibers. Journal of Polymer Science, Polymer Physics Edition, 1980, 18, 1931-1943.	1.0	111
56	Optical theory applied to infrared spectroscopy. Vibrational Spectroscopy, 1994, 8, 1-36.	1.2	110
57	Development of Fully Biobased High-Performance Bis-Benzoxazine under Environmentally Friendly Conditions. ACS Sustainable Chemistry and Engineering, 2018, 6, 5485-5494.	3.2	109
58	Effect of Polymerizing Diacetylene Groups on the Lowering of Polymerization Temperature of Benzoxazine Groups in the Highly Thermally Stable, Main-Chain-Type Polybenzoxazines. Macromolecules, 2009, 42, 5121-5127.	2.2	108
59	Molecular analysis of the melting behaviour of poly(aryl-ether-ether-ketone). Polymer, 1986, 27, 1400-1405.	1.8	107
60	Making Benzoxazines Greener: Design, Synthesis, and Polymerization of a Biobased Benzoxazine Fulfilling Two Principles of Green Chemistry. ACS Sustainable Chemistry and Engineering, 2018, 6, 13096-13106.	3.2	107
61	Synthesis of benzoxazine functional silane and adhesion properties of glass-fiber-reinforced polybenzoxazine composites. Journal of Applied Polymer Science, 1998, 69, 2559-2567.	1.3	105
62	Thermal decomposition processes in polybenzoxazine model dimers investigated by TGAâ€“FTIR and GCâ€“MS. Polymer Degradation and Stability, 2002, 76, 1-15.	2.7	105
63	The structure of aminofunctional silane coupling agents: 1. Î³-Aminopropyltriethoxysilane and its analogues. Polymer, 1982, 23, 251-257.	1.8	103
64	Polymerization of linear aliphatic diamine-based benzoxazine resins under inert and oxidative environments. Polymer, 2007, 48, 6763-6772.	1.8	102
65	Main-chain benzoxazine oligomers: A new approach for resin transfer moldable neat benzoxazines for high performance applications. Polymer, 2010, 51, 5688-5694.	1.8	102
66	Low-Viscosity Polyether-Based Main-Chain Benzoxazine Polymers: Precursors for Flexible Thermosetting Polymers. Macromolecules, 2010, 43, 7122-7127.	2.2	102
67	Study on the chemical stability of benzoxazine-based phenolic resins in carboxylic acids. Journal of Applied Polymer Science, 2001, 79, 1207-1219.	1.3	99
68	Development of low-viscosity benzoxazine resins and their polymers. Journal of Applied Polymer Science, 2002, 86, 2953-2966.	1.3	99
69	Mechanistic Pathways for the Polymerization of Methylol-Functional Benzoxazine Monomers. Macromolecules, 2012, 45, 8119-8125.	2.2	97
70	Study of hydrogen bonding and thermal properties of polybenzoxazine and poly-(?-caprolactone) blends. Journal of Polymer Science, Part B: Polymer Physics, 2001, 39, 736-749.	2.4	96
71	A review on the very high nanofiller-content nanocomposites: Their preparation methods and properties with high aspect ratio fillers. Progress in Polymer Science, 2018, 86, 1-39.	11.8	95
72	An investigation of the coupling agent/matrix interface of fiberglass reinforced plastics by fourier transform infrared spectroscopy. Journal of Polymer Science, Polymer Physics Edition, 1979, 17, 615-626.	1.0	94

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73	Synthesis and Characterization of Cyanate Ester Functional Benzoxazine and Its Polymer. Macromolecules, 2015, 48, 8412-8417.	2.2	93
74	Poly(benzoxazine-co-urethane)s: A new concept for phenolic/urethane copolymers via one-pot method. Polymer, 2011, 52, 307-317.	1.8	92
75	Biobased Chitosan/Polybenzoxazine Cross-Linked Films: Preparation in Aqueous Media and Synergistic Improvements in Thermal and Mechanical Properties. Biomacromolecules, 2013, 14, 1806-1815.	2.6	92
76	Intrinsic selfâ€initiating thermal ringâ€opening polymerization of 1,3â€benzoxazines without the influence of impurities using very high purity crystals. Journal of Polymer Science Part A, 2017, 55, 3434-3445.	2.5	91
77	Effect of phenol substitution on the network structure and properties of linear aliphatic diamine-based benzoxazines. Polymer, 2009, 50, 613-626.	1.8	87
78	Substrate effects on the chemisorbed and physisorbed layers of methacryl silane-modified particulate minerals. Macromolecules, 1984, 17, 1659-1666.	2.2	85
79	Quantitative monomolecular coverage of inorganic particulates by methacryl-functional silanes. Surface Science, 1984, 148, 601-622.	0.8	84
80	Resveratrol-based tri-functional benzoxazines: Synthesis, characterization, polymerization, and thermal and flame retardant properties. European Polymer Journal, 2019, 116, 526-533.	2.6	84
81	Dynamic mechanical analysis on highly thermally stable polybenzoxazines with an acetylene functional group. Journal of Applied Polymer Science, 1999, 73, 857-862.	1.3	82
82	Model Compounds Study on the Network Structure of Polybenzoxazines. Macromolecules, 2003, 36, 8320-8329.	2.2	82
83	Novel benzoxazine monomer containing diacetylene linkage: An approach to benzoxazine thermosets with low polymerization temperature without added initiators or catalysts. Polymer, 2009, 50, 3153-3157.	1.8	82
84	High-performance maleimide and nitrile-functionalized benzoxazines with good processibility for advanced composites applications. Journal of Applied Polymer Science, 2006, 101, 548-558.	1.3	80
85	Synthesis of high thermal stability polybenzoxazoles via orthoâ€imideâ€functional benzoxazine monomers. Journal of Polymer Science Part A, 2015, 53, 1330-1338.	2.5	79
86	Intramolecular Hydrogen Bonding in Benzoxazines: When Structural Design Becomes Functional. Chemistry - A European Journal, 2016, 22, 2691-2707.	1.7	77
87	A Study of Morphology and Intercalation Kinetics of Polystyreneâ^'Organoclay Nanocomposites. Macromolecules, 2005, 38, 6513-6519.	2.2	76
88	Effect of hydrolysis and drying on the siloxane bonds of a silane coupling agent deposited on E-glass fibers. Journal of Polymer Science, Polymer Physics Edition, 1980, 18, 233-237.	1.0	73
89	Synergism and multiple mechanical relaxations observed in ternary systems based on benzoxazine, epoxy, and phenolic resins. Journal of Polymer Science, Part B: Polymer Physics, 2000, 38, 1687-1698.	2.4	73
90	Anomalous Isomeric Effect on the Properties of Bisphenol F-based Benzoxazines: Toward the Molecular Design for Higher Performance. Macromolecules, 2014, 47, 5682-5690.	2.2	72

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91	Quantitative Surface FTâ€”IR Spectroscopic Analysis of Polymers. Rubber Chemistry and Technology, 1987, 60, 497-554.	0.6	71
92	Improved thermal stability of polybenzoxazines by transition metals. Polymer Degradation and Stability, 2006, 91, 805-815.	2.7	71
93	The structure of an aminosilane coupling agent in aqueous solutions and partially cured solids. Journal of Polymer Science, Polymer Physics Edition, 1982, 20, 701-718.	1.0	70
94	Gelation behavior of near-zero shrinkage polybenzoxazines. Journal of Applied Polymer Science, 2001, 79, 406-417.	1.3	70
95	A study on hydrogen bonding in controlled-structure benzoxazine model oligomers. Macromolecular Symposia, 2003, 195, 123-140.	0.4	69
96	Review on the Accelerated and Low-Temperature Polymerization of Benzoxazine Resins: Addition Polymerizable Sustainable Polymers. Polymers, 2021, 13, 1260.	2.0	69
97	Thermally stable polybenzoxazines via ortho-norbornene functional benzoxazine monomers: Unique advantages in monomer synthesis, processing and polymer properties. Polymer, 2015, 66, 240-248.	1.8	67
98	Studies of the simulation of silane coupling agent structures on particulate fillers; the pH effect. Polymer Composites, 1984, 5, 18-28.	2.3	66
99	A study on the orientation of imidazoles on copper as corrosion inhibitor and possible adhesion promoter for electric devices. Journal of Chemical Physics, 1983, 78, 6960-6969.	1.2	65
100	An investigation of the thermal and thermo-oxidative degradation of polybenzoxazines with a reactive functional group. Journal of Polymer Science, Part B: Polymer Physics, 1999, 37, 647-659.	2.4	64
101	Toughening composites by fiber coating: a review. Composite Interfaces, 1994, 2, 199-234.	1.3	63
102	Synthesis, characterization and thermal degradation of functional benzoxazine monomers and polymers containing phenylphosphine oxide. Polymer Degradation and Stability, 2006, 91, 1166-1178.	2.7	63
103	Synthesis and properties of new crosslinkable telechelics with benzoxazine moiety at the chain end. Polymer, 2009, 50, 2688-2695.	1.8	62
104	An Ultrahigh Performance Cross-Linked Polybenzoxazole via Thermal Conversion from Poly(benzoxazine amic acid) Based on Smart o-Benzoxazine Chemistry. Macromolecules, 2014, 47, 8674-8681.	2.2	62
105	Towards the Development of Green Flame Retardancy by Polybenzoxazines. Progress in Polymer Science, 2021, 121, 101435.	11.8	62
106	Characterization of silane-treated glass fibers by diffuse reflectance Fourier transform spectrometry. Analytical Chemistry, 1984, 56, 773-778.	3.2	61
107	Benzoxazine Atropisomers: Intrinsic Atropisomerization Mechanism and Conversion to High Performance Thermosets. Macromolecules, 2018, 51, 7574-7585.	2.2	61
108	A truly bio-based benzoxazine derived from three natural reactants obtained under environmentally friendly conditions and its polymer properties. Green Chemistry, 2021, 23, 4051-4064.	4.6	61

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109	Investigation of the boron nitride/polybenzoxazine interphase. Journal of Polymer Science, Part B: Polymer Physics, 1999, 37, 2360-2372.	2.4	60
110	An anomalous trade-off effect on the properties of smart ortho-functional benzoxazines. Polymer Chemistry, 2015, 6, 2541-2550.	1.9	60
111	Molecular analysis of the crystallization behavior of poly(aryl-ether-ether-ketone). Journal of Polymer Science, Part B: Polymer Physics, 1986, 24, 1079-1091.	2.4	59
112	Structure of cyclohexylsilanetriol: The first xâ€ray crystal structure of a silanetriol. Journal of Chemical Physics, 1982, 77, 5748-5751.	1.2	58
113	Synthesis of Sulfonic Acid-Containing Polybenzoxazine for Proton Exchange Membrane in Direct Methanol Fuel Cells. Macromolecules, 2014, 47, 1039-1045.	2.2	58
114	Polymerization of an AB-Type Benzoxazine Monomer toward Different Polybenzoxazine Networks: When Dielsâ€“Alder Reaction Meets Benzoxazine Chemistry in a Single-Component Resin. Macromolecules, 2019, 52, 7386-7395.	2.2	58
115	Adsorption behavior of a silane coupling agent on colloidal silica studied by gel permeation chromatography. Journal of Colloid and Interface Science, 1991, 143, 146-156.	5.0	57
116	A Differential Scanning Calorimetry Study of the Assembly of Hexadecylamine Molecules in the Nanoscale Confined Space of Silicate Galleries. Chemistry of Materials, 2002, 14, 1398-1404.	3.2	57
117	Methacryloyl-Functional Benzoxazine: Photopolymerization and Thermally Activated Polymerization. Macromolecules, 2011, 44, 767-772.	2.2	57
118	Enhanced Thermal Property and Flame Retardancy via Intramolecular 5-Membered Ring Hydrogen Bond-Forming Amide Functional Benzoxazine Resins. Macromolecules, 2018, 51, 9982-9991.	2.2	57
119	Mechanical property improvement of carbon fiber reinforced polybenzoxazine by rubber interlayer. Polymer Composites, 2003, 24, 597-607.	2.3	56
120	Latent Catalyst-Containing Naphthoxazine: Synthesis and Effects on Ring-Opening Polymerization. Macromolecules, 2016, 49, 7129-7140.	2.2	56
121	Unique self-catalyzed cationic ring-opening polymerization of a high performance deoxybenzoin-based 1,3-benzoxazine monomer. Polymer, 2019, 168, 8-15.	1.8	56
122	Synthesis and Characterization of Structurally Uniform Model Oligomers of Polybenzoxazine. Macromolecules, 1998, 31, 2409-2418.	2.2	55
123	Solution intercalation of polystyrene and the comparison with poly(ethyl methacrylate). Polymer, 2003, 44, 6571-6577.	1.8	54
124	Structure Property Relationships and the Role of Processing in the Reinforcement of Nylon 6-POSS Blends. Macromolecules, 2012, 45, 4650-4657.	2.2	54
125	Partially miscible blends of epoxy resin and epoxidized rubber: Structural characterization of the epoxidized rubber and mechanical properties of the blends. Journal of Applied Polymer Science, 1994, 53, 441-454.	1.3	53
126	A review on the structure and characterization techniques of silane/matrix interphases. Macromolecular Symposia, 1996, 108, 19-53.	0.4	52

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127	Resin transfer molding of natural fiber reinforced polybenzoxazine composities. Polymer Composites, 2002, 23, 352-360.	2.3	52
128	Poly(benzoxazine-f-chitosan) films: The role of aldehyde neighboring groups on chemical interaction of benzoxazine precursors with chitosan. Carbohydrate Polymers, 2019, 209, 122-129.	5.1	52
129	Fourier transform ir reflection techniques for characterization of polyimide films on copper substrates. Thin Solid Films, 1987, 154, 271-279.	0.8	51
130	Silicon-29 solid-state nuclear magnetic resonance spectroscopy of composite interfaces. Polymer Composites, 1990, 11, 121-125.	2.3	51
131	Investigation of an Nï¿½ï¿½H hydrogen bond in a solid benzoxazine dimer by1H-15N NMR correlation techniques under fast magic-angle spinning. Magnetic Resonance in Chemistry, 2001, 39, S5-S17.	1.1	51
132	Thermal analysis and mechanical characterization of maleimide-functionalized benzoxazine/epoxy copolymers. Journal of Applied Polymer Science, 2006, 101, 1670-1677.	1.3	51
133	Study of the Effects of Intramolecular and Intermolecular Hydrogenâ€Bonding Systems on the Polymerization of Amideâ€Containing Benzoxazines. Macromolecular Chemistry and Physics, 2017, 218, 1600562.	1.1	51
134	Spectroscopic Studies of Poly[N,N'-bis(phenoxyphenyl)pyromellitimide]. 2. Structural Changes of Polyimide upon Yielding. Macromolecules, 1980, 13, 834-839.	2.2	50
135	Low temperature polymerization of novel, monotropic liquid crystalline benzoxazines. Journal of Polymer Science Part A, 2009, 47, 5871-5881.	2.5	50
136	Crosslinked polyamide based on mainâ€chain type polybenzoxazines derived from a primary amineâ€functionalized benzoxazine monomer. Journal of Polymer Science Part A, 2011, 49, 4335-4342.	2.5	50
137	Interpretation of Reflection and Transmission Spectra for Thin Films: Reflection. Applied Spectroscopy, 1994, 48, 775-787.	1.2	48
138	Infrared and thermal analyses of polybenzoxazine and polycarbonate blends. Journal of Applied Polymer Science, 2001, 81, 1021-1034.	1.3	48
139	Quantitative intermolecular reaction of hydrolyzed trialkoxysilanes at submonolayer, monolayer, and multilayer surface coverages. Langmuir, 1986, 2, 127-131.	1.6	47
140	Non-flammable thiazole-functional monobenzoxazines: Synthesis, polymerization, thermal and thermomechanical properties, and flammability studies. Polymer, 2018, 157, 38-49.	1.8	47
141	Molecular organization of the coupling agent interphase of fiber-glass reinforced plastics. Journal of Polymer Science, Polymer Physics Edition, 1979, 17, 1807-1813.	1.0	45
142	Composition of the continuous phase in partially miscible blends of epoxy resin and epoxidized rubber by dynamic mechanical analysis. Polymer, 1994, 35, 956-966.	1.8	43
143	Behavior of a bisphenol-A-based polybenzoxazine exposed to ultraviolet radiation. Journal of Polymer Science, Part B: Polymer Physics, 2000, 38, 2687-2701.	2.4	42
144	Effect of fiber surface modification on the mechanical properties of sisal fiberâ€reinforced benzoxazine/epoxy composites based on aliphatic diamine benzoxazine. Journal of Applied Polymer Science, 2007, 106, 2925-2935.	1.3	42

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145	Dynamic mechanical properties of epoxy resin/epoxidized rubber blends: Effect of phase separated rubber. Journal of Polymer Science, Part B: Polymer Physics, 1994, 32, 647-657.	2.4	41
146	Study of the characterization and curing of a phenyl benzoxazine using15N solid-state nuclear magnetic resonance spectroscopy. Journal of Applied Polymer Science, 1998, 70, 1401-1411.	1.3	41
147	Intrinsically noncombustible polymers without flame retardant additives: Sulfur-containing and bio-based benzoxazines. European Polymer Journal, 2020, 133, 109770.	2.6	41
148	1,3â€bis(benzoxazine) from cashew nut shell oil and diaminodiphenyl methane and its composites with wood flour. Journal of Applied Polymer Science, 2013, 127, 2710-2714.	1.3	40
149	Smart chemical design incorporating umbelliferone as natural renewable resource toward the preparation of thermally stable thermosets materials based on benzoxazine chemistry. RSC Advances, 2015, 5, 97855-97861.	1.7	40
150	Tailor-made and chemically designed synthesis of coumarin-containing benzoxazines and their reactivity study toward their thermosets. Journal of Polymer Science Part A, 2016, 54, 1428-1435.	2.5	40
151	Effect of CaCO3 on the mechanical and rheological properties of a ring-opening phenolic resin: Polybenzoxazine. Polymer Composites, 1998, 19, 126-132.	2.3	39
152	Preparation and thermal properties of graphene oxide/main chain benzoxazine polymer. European Polymer Journal, 2013, 49, 3825-3833.	2.6	39
153	Hydrogen-bonding characteristics and unique ring-opening polymerization behavior ofOrtho-methylol functional benzoxazine. Journal of Polymer Science Part A, 2016, 54, 3635-3642.	2.5	39
154	Development of Hydrogen-Rich Benzoxazine Resins with Low Polymerization Temperature for Space Radiation Shielding. ACS Omega, 2018, 3, 11569-11581.	1.6	38
155	A study of corrosion protection on copper by new polymeric agents: silane-modified imidazoles. Corrosion Science, 1992, 33, 1053-1066.	3.0	37
156	Simple and low energy consuming synthesis of cyanate ester functional naphthoxazines and their properties. Polymer Chemistry, 2016, 7, 2245-2252.	1.9	37
157	Microwaveâ€assisted solventâ€free synthesis of novel benzoxazines: A faster and environmentally friendly route to the development of bioâ€based thermosetting resins. Journal of Polymer Science Part A, 2017, 55, 3534-3544.	2.5	37
158	Synthesis, polymerization kinetics and thermal properties of para-methylol functional benzoxazine. Reactive and Functional Polymers, 2018, 129, 23-28.	2.0	37
159	Grazing Angle Metal-Overlayer Infrared ATR Spectroscopy. Applied Spectroscopy, 1988, 42, 1296-1302.	1.2	36
160	Synthesis and ring-opening polymerization of 2-substituted 1,3-benzoxazine: the first observation of the polymerization of oxazine ring-substituted benzoxazines. Polymer Chemistry, 2016, 7, 7177-7184.	1.9	36
161	Quantitative studies on thep-substituent effect of the phenolic component on the polymerization of benzoxazines. Polymer Chemistry, 2018, 9, 4194-4204.	1.9	36
162	Gelation study of high processability and high reliability ternary systems based on benzoxazine, epoxy, and phenolic resins for an application as electronic packaging materials. Rheologica Acta, 2002, 41, 1-9.	1.1	34

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