

John M Torkelson

List of Publications by Year in descending order

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208
papers

13,862
citations

17440

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24982

109
g-index

211
all docs

211
docs citations

211
times ranked

9527
citing authors

#	ARTICLE	IF	CITATIONS
1	Functional enzyme-polymer complexes. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2119509119.	7.1	13
2	Development of rigid amorphous fraction in cold-crystallized syndiotactic polystyrene films confined near the nanoscale: Novel analysis via ellipsometry. Journal of Polymer Science, 2022, 60, 1631-1642.	3.8	3
3	Reprocessable and Recyclable Chain-Growth Polymer Networks Based on Dynamic Hindered Urea Bonds. ACS Macro Letters, 2022, 11, 568-574.	4.8	39
4	Reprocessable polyhydroxyurethane networks reinforced with reactive polyhedral oligomeric silsesquioxanes (POSS) and exhibiting excellent elevated temperature creep resistance. Polymer, 2022, 252, 124971.	3.8	25
5	Arresting Elevated-Temperature Creep and Achieving Full Cross-Link Density Recovery in Reprocessable Polymer Networks and Network Composites via Nitroxide-Mediated Dynamic Chemistry. Macromolecules, 2021, 54, 1452-1464.	4.8	64
6	Identification of Known and Novel Monomers for Poly(hydroxyurethanes) from Biobased Materials. Industrial & Engineering Chemistry Research, 2021, 60, 6814-6825.	3.7	9
7	Lateral diffusion of single poly(ethylene oxide) chains on the surfaces of glassy and molten polymer films. Journal of Chemical Physics, 2021, 154, 164902.	3.0	1
8	Heterogeneous Charged Complexes of Random Copolymers for the Segregation of Organic Molecules. ACS Central Science, 2021, 7, 882-891.	11.3	5
9	Photocurable bioresorbable adhesives as functional interfaces between flexible bioelectronic devices and soft biological tissues. Nature Materials, 2021, 20, 1559-1570.	27.5	114
10	Rigid amorphous fraction and crystallinity in cold-crystallized syndiotactic polystyrene: Characterization by differential scanning calorimetry. Polymer, 2021, 230, 124044.	3.8	8
11	Reprocessable covalent adaptable networks with excellent elevated-temperature creep resistance: facilitation by dynamic, dissociative bis(hindered amino) disulfide bonds. Polymer Chemistry, 2021, 12, 2760-2771.	3.9	51
12	Determining order-to-disorder transitions in block copolymer thin films using a self-referencing fluorescent probe. Molecular Systems Design and Engineering, 2020, 5, 330-338.	3.4	6
13	Recyclable Polymethacrylate Networks Containing Dynamic Dialkylamino Disulfide Linkages and Exhibiting Full Property Recovery. Macromolecules, 2020, 53, 8367-8373.	4.8	33
14	Molecular Weight Dependence of the Glass Transition Temperature (T_g)-Confinement Effect in Well-Dispersed Poly(2-vinyl pyridine)-Silica Nanocomposites: Comparison of Interfacial Layer T_g and Matrix T_g . Macromolecules, 2020, 53, 8725-8736.	4.8	23
15	Impact of bottlebrush chain architecture on T_g -confinement and α -relaxation effects enabled by thermally cleavable bottlebrush polymers synthesized by radical coupling and atom transfer radical polymerization. Journal of Polymer Science, 2020, 58, 2887-2905.	3.8	7
16	Covalent Adaptive Networks for Enhanced Adhesion: Exploiting Disulfide Dynamic Chemistry and Annealing during Application. ACS Applied Polymer Materials, 2020, 2, 4658-4665.	4.4	41
17	Dynamic Covalent Polyurethane Networks with Excellent Property and Cross-Link Density Recovery after Recycling and Potential for Monomer Recovery. ACS Applied Polymer Materials, 2020, 2, 2093-2101.	4.4	45
18	Recyclable polymer networks containing hydroxyurethane dynamic cross-links: Tuning morphology, cross-link density, and associated properties with chain extenders. Polymer, 2019, 178, 121604.	3.8	37

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19	Engineering Surface Hydrophilicity via Polymer Chain-End Segregation in Coatings Formed by Photopolymerization. ACS Applied Polymer Materials, 2019, 1, 3095-3102.	4.4	6
20	Reprocessable Polymer Networks via Thiourethane Dynamic Chemistry: Recovery of Cross-link Density after Recycling and Proof-of-Principle Solvolysis Leading to Monomer Recovery. Macromolecules, 2019, 52, 8207-8216.	4.8	135
21	Reprocessable Polymer Networks Designed with Hydroxyurethane Dynamic Crosslinks: Effect of Backbone Structure on Network Morphology, Phase Segregation, and Property Recovery. Macromolecular Chemistry and Physics, 2019, 220, 1900083.	2.2	36
22	Isolating the effect of polymer-grafted nanoparticle interactions with matrix polymer from dispersion on composite property enhancement: The example of polypropylene/halloysite nanocomposites. Polymer, 2019, 176, 38-50.	3.8	24
23	Biobased Reprocessable Polyhydroxyurethane Networks: Full Recovery of Crosslink Density with Three Concurrent Dynamic Chemistries. ACS Sustainable Chemistry and Engineering, 2019, 7, 10025-10034.	6.7	126
24	Reprocessable Polyhydroxyurethane Network Composites: Effect of Filler Surface Functionality on Cross-link Density Recovery and Stress Relaxation. ACS Applied Materials & Interfaces, 2019, 11, 2398-2407.	8.0	103
25	Segmented Thermoplastic Polymers Synthesized by Thiol-Ene Click Chemistry: Examples of Thiol-Norbornene and Thiol-Maleimide Click Reactions. Macromolecules, 2018, 51, 3620-3631.	4.8	31
26	Tenfold increase in the photostability of an azobenzene guest in vapor-deposited glass mixtures. Journal of Chemical Physics, 2018, 149, 204503.	3.0	16
27	Remarkable glass transition breadths up to 120 K exhibited by block-gradient copolymers and by gradient copolymers plasticized by oligomer. Polymer, 2018, 151, 145-153.	3.8	7
28	Vitrimers Designed Both To Strongly Suppress Creep and To Recover Original Cross-Link Density after Reprocessing: Quantitative Theory and Experiments. Macromolecules, 2018, 51, 5537-5546.	4.8	218
29	Suppression of the Fragility-Confinement Effect via Low Molecular Weight Cyclic or Ring Polymer Topology. Macromolecules, 2017, 50, 1147-1154.	4.8	33
30	Tuning nanophase separation behavior in segmented polyhydroxyurethane via judicious choice of soft segment. Polymer, 2017, 110, 218-227.	3.8	48
31	Tuning the properties of segmented polyhydroxyurethanes via chain extender structure. Journal of Applied Polymer Science, 2017, 134, 44942.	2.6	30
32	Polystyrene-Grafted Silica Nanoparticles: Investigating the Molecular Weight Dependence of Glass Transition and Fragility Behavior. Macromolecules, 2017, 50, 1589-1598.	4.8	51
33	Combined Effects of Carbonate and Soft-Segment Molecular Structures on the Nanophase Separation and Properties of Segmented Polyhydroxyurethane. Macromolecules, 2017, 50, 3193-3203.	4.8	47
34	T _g -confinement effects in strongly miscible blends of poly(2,6-dimethyl-1,4-phenylene oxide) and polystyrene: Roles of bulk fragility and chain segregation. Polymer, 2017, 118, 85-96.	3.8	14
35	Molecular weight dependence of the intrinsic size effect on T_g in AAO template-supported polymer nanorods: A DSC study. Journal of Chemical Physics, 2017, 146, 203323.	3.0	19
36	Non-Isocyanate Polyurethane Thermoplastic Elastomer: Amide-Based Chain Extender Yields Enhanced Nanophase Separation and Properties in Polyhydroxyurethane. Macromolecules, 2017, 50, 4425-4434.	4.8	80

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37	Enhancement of Surface Wettability by Incorporating Polar Initiator Fragments at Chain Ends of Low-Molecular-Weight Polymers. ACS Applied Materials & Interfaces, 2017, 9, 12176-12181.	8.0	8
38	Bulk physical aging behavior of cross-linked polystyrene compared to its linear precursor: Effects of cross-linking and aging temperature. Polymer, 2017, 115, 197-203.	3.8	11
39	Reprocessable polyhydroxyurethane networks exhibiting full property recovery and concurrent associative and dissociative dynamic chemistry via transcarbamoylation and reversible cyclic carbonate aminolysis. Polymer Chemistry, 2017, 8, 6349-6355.	3.9	159
40	Functionalization of hydroxyl groups in segmented polyhydroxyurethane eliminates nanophase separation. Journal of Polymer Science Part A, 2017, 55, 3347-3351.	2.3	18
41	Enhanced glass transition temperature of low molecular weight poly(methyl methacrylate) by initiator fragments located at chain ends. Polymer, 2017, 122, 194-199.	3.8	9
42	Stiffness Gradients in Glassy Polymer Model Nanocomposites: Comparisons of Quantitative Characterization by Fluorescence Spectroscopy and Atomic Force Microscopy. Macromolecules, 2017, 50, 5447-5458.	4.8	30
43	A Combined Computational and Experimental Study of Copolymerization Propagation Kinetics for ϵ -Ethylcyclopentyl methacrylate and Methyl methacrylate. Macromolecular Theory and Simulations, 2016, 25, 263-273.	1.4	4
44	Enhanced T_g -Confinement Effect in Cross-Linked Polystyrene Compared to Its Linear Precursor: Roles of Fragility and Chain Architecture. Macromolecules, 2016, 49, 5092-5103.	4.8	39
45	Phase-Separated Thiol-Epoxy-Acrylate Hybrid Polymer Networks with Controlled Cross-Link Density Synthesized by Simultaneous Thiol-Acrylate and Thiol-Epoxy Click Reactions. Macromolecules, 2016, 49, 4115-4123.	4.8	53
46	Tuning the T_g -confinement effect in thin polymer films via minute levels of residual surfactant which α -escape the free surface. Polymer, 2016, 87, 226-235.	3.8	16
47	Hybrid thiol-acrylate-epoxy polymer networks: Comparison of one-pot synthesis with sequential reactions and shape memory properties. Polymer, 2016, 96, 198-204.	3.8	16
48	Stiffness of thin, supported polystyrene films: Free-surface, substrate, and confinement effects characterized via self-referencing fluorescence. Polymer, 2016, 99, 417-426.	3.8	32
49	Novel thermoplastic polyhydroxyurethane elastomers as effective damping materials over broad temperature ranges. European Polymer Journal, 2016, 84, 770-783.	5.4	88
50	Recyclable Crosslinked Polymer Networks via One-Step Controlled Radical Polymerization. Advanced Materials, 2016, 28, 6746-6750.	21.0	99
51	Poly(methyl methacrylate) nanotubes in AAO templates: Designing nanotube thickness and characterizing the T_g -confinement effect by DSC. Polymer, 2016, 82, 327-336.	3.8	26
52	Nonisocyanate Thermoplastic Polyhydroxyurethane Elastomers via Cyclic Carbonate Aminolysis: Critical Role of Hydroxyl Groups in Controlling Nanophase Separation. ACS Macro Letters, 2016, 5, 424-429.	4.8	87
53	Fragility-Confinement Effects: Apparent Universality as a Function of Scaled Thickness in Films of Freely Deposited, Linear Polymer and Its Absence in Densely Grafted Brushes. Macromolecules, 2016, 49, 1331-1343.	4.8	44
54	Dramatic Tunability of the Glass Transition Temperature and Fragility of Low Molecular Weight Polystyrene by Initiator Fragments Located at Chain Ends. Macromolecules, 2016, 49, 2387-2398.	4.8	36

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55	Major Impact of Cyclic Chain Topology on the T_g -Confinement Effect of Supported Thin Films of Polystyrene. <i>Macromolecules</i> , 2016, 49, 257-268.	4.8	67
56	Polyurethane/polyhydroxyurethane hybrid polymers and their applications as adhesive bonding agents. <i>International Journal of Adhesion and Adhesives</i> , 2016, 64, 1-8.	2.9	46
57	Green polypropylene/waste paper composites with superior modulus and crystallization behavior: Optimizing specific energy in solid-state shear pulverization for filler size reduction and dispersion. <i>Composites Part A: Applied Science and Manufacturing</i> , 2016, 83, 47-55.	7.6	30
58	Direct Use of Natural Antioxidant-rich Agro-wastes as Thermal Stabilizer for Polymer: Processing and Recycling. <i>ACS Sustainable Chemistry and Engineering</i> , 2016, 4, 881-889.	6.7	62
59	A Combined Computational and Experimental Study of Copolymerization Propagation Kinetics for 1-Ethylcyclopentyl methacrylate and Methyl methacrylate. <i>Macromolecular Theory and Simulations</i> , 2016, 25, 263-273.	1.4	0
60	Dispersion and Property Enhancements in Polyolefin/Soy Flour Biocomposites Prepared via Melt Extrusion Followed by Solid-State Shear Pulverization. <i>Macromolecular Materials and Engineering</i> , 2015, 300, 772-784.	3.6	16
61	Importance of superior dispersion versus filler surface modification in producing robust polymer nanocomposites: The example of polypropylene/nanosilica hybrids. <i>Polymer</i> , 2015, 68, 147-157.	3.8	67
62	Role of neighboring domains in determining the magnitude and direction of T_g -confinement effects in binary, immiscible polymer systems. <i>Polymer</i> , 2015, 80, 180-187.	3.8	34
63	Novel synthesis of branched polypropylene via solid-state shear pulverization. <i>Polymer</i> , 2015, 60, 77-87.	3.8	21
64	Sustainable Green Hybrids of Polyolefins and Lignin Yield Major Improvements in Mechanical Properties When Prepared via Solid-State Shear Pulverization. <i>ACS Sustainable Chemistry and Engineering</i> , 2015, 3, 959-968.	6.7	37
65	Substantial spatial heterogeneity and tunability of glass transition temperature observed with dense polymer brushes prepared by ARGET ATRP. <i>Polymer</i> , 2015, 64, 183-192.	3.8	42
66	T_g and T_g breadth of poly(2,6-dimethyl-1,4-phenylene oxide)/polystyrene miscible polymer blends characterized by differential scanning calorimetry, ellipsometry, and fluorescence spectroscopy. <i>Polymer</i> , 2015, 65, 233-242.	3.8	27
67	Influence of initiator fragments as chain ends on the T_g -confinement effect and dewetting of thin films of ultralow molecular weight polymer. <i>Polymer</i> , 2015, 65, 105-114.	3.8	18
68	Effects of process method and quiescent coarsening on dispersed-phase size distribution in polymer blends: comparison of solid-state shear pulverization with intensive batch melt mixing. <i>Polymer Bulletin</i> , 2015, 72, 693-711.	3.3	9
69	Cooperative Catalysis of Cyclic Carbonate Ring Opening: Application Towards Nonisocyanate Polyurethane Materials. <i>European Journal of Organic Chemistry</i> , 2015, 2015, 2791-2795.	2.4	52
70	Comparison of polyolefin biocomposites prepared with waste cardboard, microcrystalline cellulose, and cellulose nanocrystals via solid-state shear pulverization. <i>Polymer</i> , 2015, 75, 78-87.	3.8	45
71	Kinetics of multifunctional thiol-epoxy click reactions studied by differential scanning calorimetry: Effects of catalysis and functionality. <i>Polymer</i> , 2015, 81, 70-78.	3.8	50
72	Residual stress relaxation and stiffness in spin-coated polymer films: Characterization by ellipsometry and fluorescence. <i>Polymer</i> , 2015, 76, 113-122.	3.8	43

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73	Cellulose nanocrystal/polyolefin biocomposites prepared by solid-state shear pulverization: Superior dispersion leading to synergistic property enhancements. <i>Polymer</i> , 2015, 56, 464-475.	3.8	88
74	Methacrylate-based polymer films useful in lithographic applications exhibit different glass transition temperature-confinement effects at high and low molecular weight. <i>Polymer</i> , 2014, 55, 1249-1258.	3.8	45
75	Well-mixed blends of HDPE and ultrahigh molecular weight polyethylene with major improvements in impact strength achieved via solid-state shear pulverization. <i>Polymer</i> , 2014, 55, 4948-4958.	3.8	64
76	Green composites of polypropylene and eggshell: Effective biofiller size reduction and dispersion by single-step processing with solid-state shear pulverization. <i>Composites Science and Technology</i> , 2014, 102, 152-160.	7.8	66
77	Maleic anhydride functionalization of polypropylene with suppressed molecular weight reduction via solid-state shear pulverization. <i>Polymer</i> , 2013, 54, 4143-4154.	3.8	42
78	Fragility is a Key Parameter in Determining the Magnitude of T_g -Confinement Effects in Polymer Films. <i>Macromolecules</i> , 2013, 46, 6091-6103.	4.8	127
79	Ester Functionalization of Polypropylene via Controlled Decomposition of Benzoyl Peroxide during Solid-State Shear Pulverization. <i>Macromolecules</i> , 2013, 46, 7834-7844.	4.8	23
80	Simultaneous Determination of Critical Micelle Temperature and Micelle Core Glass Transition Temperature of Block Copolymer-Solvent Systems via Pyrene-Label Fluorescence. <i>Macromolecules</i> , 2013, 46, 4131-4140.	4.8	18
81	Novel, synergistic composites of polypropylene and rice husk ash: Sustainable resource hybrids prepared by solid-state shear pulverization. <i>Polymer Composites</i> , 2013, 34, 1211-1221.	4.6	34
82	Modulus, Confinement, and Temperature Effects on Surface Capillary Wave Dynamics in Bilayer Polymer Films Near the Glass Transition. <i>Physical Review Letters</i> , 2012, 109, 038302.	7.8	45
83	Major Roles of Blend Partner Fragility and Dye Placement on Component Glass Transition Temperatures: Fluorescence Study of Near-Ininitely Dilute Species in Binary Blends. <i>Macromolecules</i> , 2012, 45, 8319-8327.	4.8	24
84	Determining multiple component glass transition temperatures in miscible polymer blends: Comparison of fluorescence spectroscopy and differential scanning calorimetry. <i>Polymer</i> , 2012, 53, 6118-6124.	3.8	24
85	Imaging of phase segregation in gradient copolymers: Island and hole surface topography. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2012, 50, 189-197.	2.1	20
86	Processing-structure-property relationships in solid-state shear pulverization: Parametric study of specific energy. <i>Polymer Engineering and Science</i> , 2012, 52, 1555-1564.	3.1	39
87	Effect of Gradient Sequencing on Copolymer Order-Disorder Transitions: Phase Behavior of Styrene- <i>n</i> -Butyl Acrylate Block and Gradient Copolymers. <i>Macromolecules</i> , 2011, 44, 6220-6226.	4.8	39
88	Glass Transition Temperature of a Component near Infinite Dilution in Binary Polymer Blends: Determination via Fluorescence Spectroscopy. <i>Macromolecules</i> , 2011, 44, 6645-6648.	4.8	27
89	Distribution of Glass Transition Temperatures in Free-Standing, Nanoconfined Polystyrene Films: A Test of de Gennes's Sliding Motion Mechanism. <i>Macromolecules</i> , 2011, 44, 4546-4553.	4.8	106
90	Crumpled Graphene Nanosheets as Highly Effective Barrier Property Enhancers. <i>Advanced Materials</i> , 2010, 22, 4759-4763.	21.0	420

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91	Polypropylene-graphite nanocomposites made by solid-state shear pulverization: Effects of significantly exfoliated, unmodified graphite content on physical, mechanical and electrical properties. <i>Polymer</i> , 2010, 51, 5525-5531.	3.8	91
92	Behavior of Gradient Copolymers at Liquid/Liquid Interfaces. <i>Langmuir</i> , 2010, 26, 3261-3267.	3.5	31
93	Dielectric Relaxation Spectroscopy of Gradient Copolymers and Block Copolymers: Comparison of Breadths in Relaxation Time for Systems with Increasing Interphase. <i>Macromolecules</i> , 2010, 43, 5740-5748.	4.8	31
94	Suppression of the T_g -Nanoconfinement Effect in Thin Poly(vinyl acetate) Films by Sorbed Water. <i>Macromolecules</i> , 2010, 43, 5158-5161.	4.8	54
95	Preparation and characterization of multiwalled carbon nanotube dispersions in polypropylene: Melt mixing versus solid-state shear pulverization. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2009, 47, 1426-1436.	2.1	41
96	Streamlined ellipsometry procedure for characterizing physical aging rates of thin polymer films. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2009, 47, 2509-2519.	2.1	52
97	Glass Transition Breadths and Composition Profiles of Weakly, Moderately, and Strongly Segregating Gradient Copolymers: Experimental Results and Calculations from Self-Consistent Mean-Field Theory. <i>Macromolecules</i> , 2009, 42, 7863-7876.	4.8	93
98	Gradient copolymers with broad glass transition temperature regions: Design of purely interphase compositions for damping applications. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2008, 46, 48-58.	2.1	120
99	Effect of nanoscale confinement on the glass transition temperature of free-standing polymer films: Novel, self-referencing fluorescence method. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2008, 46, 2754-2764.	2.1	93
100	Critical micelle concentrations of block and gradient copolymers in homopolymer: Effects of sequence distribution, composition, and molecular weight. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2008, 46, 2672-2682.	2.1	37
101	Cellular structures of carbon nanotubes in a polymer matrix improve properties relative to composites with dispersed nanotubes. <i>Polymer</i> , 2008, 49, 1332-1337.	3.8	92
102	Compatibilized polymer blends with nanoscale or sub-micron dispersed phases achieved by hydrogen-bonding effects: Block copolymer vs blocky gradient copolymer addition. <i>Polymer</i> , 2008, 49, 2686-2697.	3.8	48
103	Microphase Separation and Shear Alignment of Gradient Copolymers: Melt Rheology and Small-Angle X-Ray Scattering Analysis. <i>Macromolecules</i> , 2008, 41, 5818-5829.	4.8	74
104	Polymer-Graphite Nanocomposites: Effective Dispersion and Major Property Enhancement via Solid-State Shear Pulverization. <i>Macromolecules</i> , 2008, 41, 1905-1908.	4.8	273
105	Dispersion and Major Property Enhancements in Polymer/Multiwall Carbon Nanotube Nanocomposites via Solid-State Shear Pulverization Followed by Melt Mixing. <i>Macromolecules</i> , 2008, 41, 5974-5977.	4.8	128
106	Glass transition and α -relaxation dynamics of thin films of labeled polystyrene. <i>Physical Review E</i> , 2007, 75, 061806.	2.1	100
107	Eliminating the Enhanced Mobility at the Free Surface of Polystyrene: Fluorescence Studies of the Glass Transition Temperature in Thin Bilayer Films of Immiscible Polymers. <i>Macromolecules</i> , 2007, 40, 2568-2574.	4.8	201
108	Evidence for the molecular-scale origin of the suppression of physical ageing in confined polymer: fluorescence and dielectric spectroscopy studies of polymer-silica nanocomposites. <i>Journal of Physics Condensed Matter</i> , 2007, 19, 205120.	1.8	74

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109	Selectively Probing the Glass Transition Temperature in Multilayer Polymer Films: An Equivalence of Block Copolymers and Multilayer Films of Different Homopolymers. <i>Macromolecules</i> , 2007, 40, 3328-3336.	4.8	105
110	Comparison of Critical Micelle Concentrations of Gradient Copolymer and Block Copolymer in Homopolymer: A Novel Characterization by Intrinsic Fluorescence. <i>Macromolecules</i> , 2007, 40, 5631-5633.	4.8	57
111	Effect of Spatial Confinement on the Glass-Transition Temperature of Patterned Polymer Nanostructures. <i>Nano Letters</i> , 2007, 7, 713-718.	9.1	73
112	Effects of Nanoscale Confinement and Interfaces on the Glass Transition Temperatures of a Series of Poly(n-methacrylate) Films. <i>Australian Journal of Chemistry</i> , 2007, 60, 765.	0.9	108
113	Polyethylene/starch blends with enhanced oxygen barrier and mechanical properties: Effect of granule morphology damage by solid-state shear pulverization. <i>Polymer</i> , 2007, 48, 1066-1074.	3.8	65
114	Breadth of glass transition temperature in styrene/acrylic acid block, random, and gradient copolymers: Unusual sequence distribution effects. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2007, 45, 2842-2849.	2.1	70
115	Model polymer nanocomposites provide an understanding of confinement effects in real nanocomposites. <i>Nature Materials</i> , 2007, 6, 278-282.	27.5	618
116	Uniquely Broad Glass Transition Temperatures of Gradient Copolymers Relative to Random and Block Copolymers Containing Repulsive Comonomers. <i>Macromolecules</i> , 2006, 39, 6152-6160.	4.8	173
117	Polymer-nanoparticle interfacial interactions in polymer nanocomposites: Confinement effects on glass transition temperature and suppression of physical aging. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2006, 44, 2935-2943.	2.1	368
118	Synthesis and application of styrene/4-hydroxystyrene gradient copolymers made by controlled radical polymerization: Compatibilization of immiscible polymer blends via hydrogen-bonding effects. <i>Polymer</i> , 2006, 47, 5799-5809.	3.8	77
119	Achievement of quasi-nanostructured polymer blends by solid-state shear pulverization and compatibilization by gradient copolymer addition. <i>Polymer</i> , 2006, 47, 6773-6781.	3.8	85
120	Confinement, composition, and spin-coating effects on the glass transition and stress relaxation of thin films of polystyrene and styrene-containing random copolymers: Sensing by intrinsic fluorescence. <i>Polymer</i> , 2006, 47, 7747-7759.	3.8	98
121	Styrene/4-hydroxystyrene random, block and gradient copolymers modified with an organic dye: Synthesis by controlled radical polymerization and characterization of electrorheological properties. <i>Polymer</i> , 2006, 47, 3287-3291.	3.8	31
122	Binary mixture pyrolysis of polypropylene and polystyrene: A modeling and experimental study. <i>Journal of Analytical and Applied Pyrolysis</i> , 2005, 73, 342-354.	5.5	41
123	Compatibilizing effects of block copolymer mixed with immiscible polymer blends by solid-state shear pulverization: stabilizing the dispersed phase to static coarsening. <i>Polymer</i> , 2005, 46, 4753-4761.	3.8	33
124	Porod scattering study of coarsening in immiscible polymer blends. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2005, 43, 3413-3420.	2.1	14
125	Impacts of Polystyrene Molecular Weight and Modification to the Repeat Unit Structure on the Glass Transition: A Nanoconfinement Effect and the Cooperativity Length Scale. <i>Macromolecules</i> , 2005, 38, 1767-1778.	4.8	292
126	Structural Relaxation of Polymer Glasses at Surfaces, Interfaces, and In Between. <i>Science</i> , 2005, 309, 456-459.	12.6	659

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127	Polymer Blend Compatibilization by Gradient Copolymer Addition during Melt Processing: A Stabilization of Dispersed Phase to Static Coarsening. <i>Macromolecules</i> , 2005, 38, 1037-1040.	4.8	111
128	Physical Aging of Ultrathin Polymer Films above and below the Bulk Glass Transition Temperature: Effects of Attractive vs Neutral Polymer-Substrate Interactions Measured by Fluorescence. <i>Macromolecules</i> , 2005, 38, 654-657.	4.8	117
129	Dramatic Reduction of the Effect of Nanoconfinement on the Glass Transition of Polymer Films via Addition of Small-Molecule Diluent. <i>Physical Review Letters</i> , 2004, 92, 095702.	7.8	130
130	In situ monitoring of sorption and drying of polymer films and coatings: self-referencing, nearly temperature-independent fluorescence sensors. <i>Polymer</i> , 2004, 45, 2623-2632.	3.8	25
131	Crystallization and Enthalpy Relaxation of Physically Associating, End-Linked Polymer Networks: Telechelic Pyrene-Labeled Polydimethylsiloxane. <i>Polymer Bulletin</i> , 2004, 51, 411-418.	3.3	16
132	Large melting point depression of 2-3-nm length-scale nanocrystals formed by the self-assembly of an associative polymer: Telechelic, pyrene-labeled poly(dimethylsiloxane). <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2004, 42, 3470-3475.	2.1	17
133	Monohydroxy-hydrazone-functionalized thermally crosslinked polymers for nonlinear optics. <i>Journal of Applied Polymer Science</i> , 2004, 92, 770-781.	2.6	2
134	Differences in enthalpy recovery of gradient and random copolymers of similar overall composition: styrene/4-methylstyrene copolymers made by nitroxide-mediated controlled radical polymerization. <i>Polymer</i> , 2004, 45, 4777-4786.	3.8	35
135	Synthesis and Glass Transition Behavior of High Molecular Weight Styrene/4-Acetoxystyrene and Styrene/4-Hydroxystyrene Gradient Copolymers Made via Nitroxide-Mediated Controlled Radical Polymerization. <i>Macromolecules</i> , 2004, 37, 5586-5595.	4.8	86
136	Synthesis and Functionalization of ROMP-Based Gradient Copolymers of 5-Substituted Norbornenes. <i>Macromolecules</i> , 2004, 37, 5504-5512.	4.8	59
137	Self-referencing fluorescence sensor for monitoring conversion of nonisothermal polymerization and nanoscale mixing of resin components. <i>Polymer</i> , 2003, 44, 423-432.	3.8	26
138	Interpolymer radical coupling reactions during sonication of polymer solutions. <i>Polymer</i> , 2003, 44, 2823-2828.	3.8	30
139	The distribution of glass-transition temperatures in nanoscopically confined glass formers. <i>Nature Materials</i> , 2003, 2, 695-700.	27.5	1,072
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