

Toshikazu Miyoshi

List of Publications by Year in descending order

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citations

147801

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docs citations

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times ranked

2707
citing authors

#	ARTICLE	IF	CITATIONS
1	Asymmetric Molecular Dynamics and Anisotropic Phase Separation in the Cocrystal of the Crystalline/Crystalline Polymer Blend. ACS Macro Letters, 2022, 11, 193-198.	4.8	2
2	Polymer Chains Fold Prior to Crystallization. ACS Macro Letters, 2022, 11, 284-288.	4.8	13
3	Non-thermal plasma-assisted rapid hydrogenolysis of polystyrene to high yield ethylene. Nature Communications, 2022, 13, 885.	12.8	23
4	Toughening of silane modified bisphenol-A epoxides. Journal of Applied Polymer Science, 2022, 139, .	2.6	3
5	Roles of Conformational Flexibility in the Crystallization of Stereoirregular Polymers. Macromolecules, 2021, 54, 5705-5718.	4.8	11
6	Giant spontaneous polarization for enhanced ferroelectric properties of biaxially oriented poly(vinylidene fluoride) by mobile oriented amorphous fractions. Journal of Materials Chemistry C, 2021, 9, 894-907.	5.5	40
7	Characterization of polymers by NMR. , 2021, , 409-440.		3
8	Isolation and Characterization of Allomelanin from Pathogenic Black Knot Fungus—a Sustainable Source of Melanin. ACS Omega, 2021, 6, 35514-35522.	3.5	14
9	Effects of surface area and porosity on behavior of IL molecules in meso and macroporous polymeric networks. Polymer, 2020, 211, 123081.	3.8	1
10	Effects of Rigid Amorphous Fraction and Lamellar Crystal Orientation on Electrical Insulation of Poly(ethylene terephthalate) Films. Macromolecules, 2020, 53, 3967-3977.	4.8	34
11	Elucidating the Molecular Interactions of Encapsulated Doxorubicin within a Nonionic, Thermoresponsive Polyester Coacervate. ACS Applied Bio Materials, 2020, 3, 4626-4634.	4.6	6
12	Mechanism of UVA Degradation of Synthetic Eumelanin. Biomacromolecules, 2019, 20, 4593-4601.	5.4	19
13	Selective Observation of Chemical Structures at Surface and Core Regions of Heat-treated Poly(Acrylonitrile) Films by Solid-State NMR Spectroscopy. Macromolecules, 2019, 52, 8384-8393.	4.8	6
14	Intramolecular and Intermolecular Packing in Polymer Crystallization. Macromolecules, 2019, 52, 4739-4748.	4.8	33
15	Modulating the crystallinity, mechanical properties, and degradability of poly(μ -caprolactone) derived polyesters by statistical and alternating copolymerization. Polymer Chemistry, 2019, 10, 2579-2588.	3.9	15
16	Tuning the Intercage Distance in Charge-Regulated Blackberry-Type Assemblies through Host-Guest Chemistry. Chemistry - A European Journal, 2019, 25, 5803-5808.	3.3	11
17	Structure and Molecular Dynamics of Semicrystalline Polymers as Studied by Solid-state NMR. New Developments in NMR, 2019, , 299-324.	0.1	0
18	Elucidation of the hierarchical structure of natural eumelanins. Journal of the Royal Society Interface, 2018, 15, 20180045.	3.4	47

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19	Characterization of the Slow Molecular Dynamics of Poly(<i>l</i> -Lactic Acid) in α and β Phases, in a Glassy State, and in a Complex with Poly(<i>d</i> -Lactic Acid) by Solid-State NMR. <i>Macromolecular Chemistry and Physics</i> , 2018, 219, 1700451.	2.2	21
20	Compositional aspects of herbaceous litter decomposition in the freshwater marshes of the Florida Everglades. <i>Plant and Soil</i> , 2018, 423, 87-98.	3.7	11
21	Nonenzymatic RNA Oligomerization at the Mineral-Water Interface: An Insight into the Adsorption-Polymerization Relationship. <i>Journal of Physical Chemistry C</i> , 2018, 122, 29386-29397.	3.1	15
22	Structural Unit of Polymer Crystallization in Dilute Solution As Studied by Solid-State NMR and ^{13}C Isotope Labeling. <i>Macromolecules</i> , 2018, 51, 8729-8737.	4.8	26
23	Modification of a conventional polyurethane composition provides significant anti-biofilm activity against <i>Escherichia coli</i> . <i>Polymer Chemistry</i> , 2018, 9, 3195-3198.	3.9	22
24	Stoichiometry and Packing Structure of Poly(lactic acid) Stereocomplex as Revealed by Solid-State NMR and ^{13}C Isotope Labeling. <i>ACS Macro Letters</i> , 2018, 7, 667-671.	4.8	25
25	Chain Trajectory, Chain Packing, and Molecular Dynamics of Semicrystalline Polymers as Studied by Solid-State NMR. <i>Polymers</i> , 2018, 10, 775.	4.5	7
26	Chain Trajectory of Semicrystalline Polymers as Revealed by ^{13}C - ^{13}C Double Quantum NMR. , 2018, , 783-791.		0
27	Intracrystalline Jump Motion in Poly(ethylene oxide) Lamellae of Variable Thickness: A Comparison of NMR Methods. <i>Macromolecules</i> , 2017, 50, 3890-3902.	4.8	28
28	Investigation of a non-isocyanate urethane functional monomer in latexes by emulsion polymerization. <i>Polymer</i> , 2017, 119, 83-97.	3.8	17
29	Chemical Reactions and Their Kinetics of <i>atactic</i> -Polyacrylonitrile As Revealed by Solid-State ^{13}C NMR. <i>Macromolecules</i> , 2017, 50, 244-253.	4.8	39
30	<i>50th Anniversary Perspective</i> : Polymer Crystals and Crystallization: Personal Journeys in a Challenging Research Field. <i>Macromolecules</i> , 2017, 50, 5995-6025.	4.8	155
31	Hierarchical Self-Organization of <i>AB_n</i> Dendron-like Molecules into a Supramolecular Lattice Sequence. <i>ACS Central Science</i> , 2017, 3, 860-867.	11.3	69
32	Solid-State NMR Study of the Chain Trajectory and Crystallization Mechanism of Poly(<i>l</i> -lactic acid) in Dilute Solution. <i>Macromolecules</i> , 2017, 50, 6404-6414.	4.8	25
33	Controlling the enthalpy-entropy competition in supramolecular fullerene liquid crystals by tuning the flexible chain length. <i>Chemical Communications</i> , 2017, 53, 8336-8339.	4.1	9
34	Chain Trajectory of Semicrystalline Polymers as Revealed by ^{13}C - ^{13}C Double Quantum NMR. , 2017, , 1-9.		0
35	Chain Trajectory of Semicrystalline Polymers As Revealed by Solid-State NMR Spectroscopy. <i>ACS Macro Letters</i> , 2016, 5, 355-358.	4.8	45
36	Isoexergonic Conformations of Surface-Bound Citrate Regulated Bioinspired Apatite Nanocrystal Growth. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 28116-28123.	8.0	20

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37	Unraveling the Design Principles of Black Widow's Gumfoot Glue. , 2016, , 303-319.		3
38	Unfolding of <i>Isotactic</i> Polypropylene under Uniaxial Stretching. ACS Macro Letters, 2016, 5, 65-68.	4.8	29
39	Application of NMR in polymer characterization. Nuclear Magnetic Resonance, 2016, , 53-95.	0.2	4
40	Three-Dimensional Conformation of Folded Polymers in Single Crystals. Physical Review Letters, 2015, 115, 168301.	7.8	39
41	Nuclear Magnetic Resonance Spectroscopy for the Analysis of Soft Materials. Nippon Gomu Kyokaishi, 2015, 88, 157-163.	0.0	0
42	NMR spectroscopy reveals the presence and association of lipids and keratin in adhesive gecko setae. Scientific Reports, 2015, 5, 9594.	3.3	33
43	Determination of Local Packing Structure of Mesomorphic Form of Isotactic Polypropylene by Solid-State NMR. ACS Macro Letters, 2015, 4, 143-146.	4.8	34
44	Helical Jump Motions of Poly(<i>l</i> -Lactic Acid) Chains in the $\hat{\pm}$ Phase As Revealed by Solid-State NMR. Journal of Physical Chemistry B, 2015, 119, 4552-4563.	2.6	29
45	Determination of Chain-Folding Structure of <i>Isotactic</i> Polypropylene in Melt-Grown $\hat{\pm}$ Crystals by ^{13}C Double Quantum NMR and Selective Isotopic Labeling. Macromolecules, 2015, 48, 5752-5760.	4.8	29
46	Stabilization of <i>Atactic</i> -Polyacrylonitrile under Nitrogen and Air As Studied by Solid-State NMR. Macromolecules, 2015, 48, 5300-5309.	4.8	57
47	Polybenzoxazine aerogels with controllable pore structures. RSC Advances, 2015, 5, 26801-26805.	3.6	30
48	Chain Trajectory and Crystallization Mechanism of a Semicrystalline Polymer in Melt- and Solution-Grown Crystals As Studied Using ^{13}C Double-Quantum NMR. Macromolecules, 2015, 48, 3282-3293.	4.8	65
49	Composition and Function of Spider Glues Maintained During the Evolution of Cobwebs. Biomacromolecules, 2015, 16, 3373-3380.	5.4	24
50	Molecular Structural Basis for Stereocomplex Formation of Polylactide Enantiomers in Dilute Solution. ACS Macro Letters, 2015, 4, 1264-1267.	4.8	32
51	Folding of Polymer Chains in the Early Stage of Crystallization. ACS Macro Letters, 2015, 4, 1382-1385.	4.8	37
52	Two Chain-Packing Transformations and Their Effects on the Molecular Dynamics and Thermal Properties of $\hat{\pm}$ -Form Isotactic Poly(propylene) under Hot Drawing: A Solid-State NMR Study. Macromolecules, 2014, 47, 2993-3004.	4.8	19
53	Elucidation of the Chain-Folding Structure of a Semicrystalline Polymer in Single Crystals by Solid-State NMR. ACS Macro Letters, 2014, 3, 556-559.	4.8	38
54	Hybrid fillers of lignin and carbon black for lowering of viscoelastic loss in rubber compounds. Polymer, 2014, 55, 3825-3835.	3.8	81

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55	Direct Solvation of Glycoproteins by Salts in Spider Silk Glues Enhances Adhesion and Helps To Explain the Evolution of Modern Spider Orb Webs. <i>Biomacromolecules</i> , 2014, 15, 1225-1232.	5.4	65
56	Chemical cross-linking of conducting poly(3,4-ethylenedioxythiophene):poly(styrenesulfonate) (PEDOT:PSS) using poly(ethylene oxide) (PEO). <i>Polymer</i> , 2013, 54, 6455-6462.	3.8	54
57	Solid-State NMR Characterization of the Chemical Defects and Physical Disorders in $\hat{\pm}$ Form of Isotactic Poly(propylene) Synthesized by Ziegler–Natta Catalysts. <i>Macromolecules</i> , 2013, 46, 6507-6519.	4.8	27
58	Effects of Chemical Modification on the Molecular Dynamics of Complex Polyrotaxanes Investigated by Solid-State NMR. <i>Macromolecules</i> , 2013, 46, 6898-6907.	4.8	22
59	Photoresponsive Coumarin Polyesters That Exhibit Cross-Linking and Chain Scission Properties. <i>Macromolecules</i> , 2013, 46, 5133-5140.	4.8	82
60	Chain-Folding Structure of a Semicrystalline Polymer in Bulk Crystals Determined by ^{13}C Double Quantum NMR. <i>ACS Macro Letters</i> , 2013, 2, 501-505.	4.8	56
61	Unique Molecular Dynamics of Structural Elements in an Asymmetric Janus Bisamide Supramolecule Characterized by Solid-State NMR. <i>Journal of Physical Chemistry B</i> , 2013, 117, 13698-13709.	2.6	5
62	Solid-State NMR Characterization of Polymer Chain Structure and Dynamics in Polymer Crystals. , 2013, , 1-17.		1
63	Critical roles of molecular dynamics in the superior mechanical properties of isotactic-poly(1-butene) elucidated by solid-state NMR. <i>Polymer Journal</i> , 2012, 44, 65-71.	2.7	56
64	Molecular Dynamics and Structure of the Crystalline Region of Isotactic-Polyolefins Characterized by Solid-State NMR. <i>ACS Symposium Series</i> , 2011, , 191-206.	0.5	4
65	Fast Dynamics and Conformations of Polymer in a Conformational Disordered Crystal Characterized by ^{13}C WISE NMR. <i>Macromolecules</i> , 2010, 43, 3986-3989.	4.8	61
66	Dynamic Geometry and Kinetics of Polymer Confined in Self-Assembly via Cooperative Hydrogen Bonding: A Solid-State NMR Study under Paramagnetic Doping. <i>Macromolecules</i> , 2010, 43, 4435-4437.	4.8	12
67	Molecular Ordering and Molecular Dynamics in Isotactic-Polypropylene Characterized by Solid State NMR. <i>Journal of Physical Chemistry B</i> , 2010, 114, 92-100.	2.6	48
68	Formation of crosslinked PTFE by radiation-induced solid-state polymerization of tetrafluoroethylene at low temperatures. <i>Radiation Physics and Chemistry</i> , 2008, 77, 401-408.	2.8	15
69	Radiation-induced synthesis of low molecular weight of PTFE and their crosslinking in acetone medium. <i>Radiation Physics and Chemistry</i> , 2008, 77, 1050-1056.	2.8	6
70	Local Packing Disorders in a Polymer Crystal by Two Dimensional Solid-State NMR. <i>Macromolecules</i> , 2007, 40, 6789-6792.	4.8	14
71	Microstructure and Thermal Property of Isotactic Poly(3-methyl-1-butene) Obtained Using the C_2 -Symmetrical Zirconocene/MAO Catalyst System. <i>Macromolecules</i> , 2007, 40, 1763-1766.	4.8	12
72	Microstructural Analysis of Insoluble Polyolefins by Melt-State ^{13}C NMR at Very High Temperatures. <i>Macromolecules</i> , 2007, 40, 3505-3509.	4.8	10

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73	Quantitative and Qualitative Aspects of Dissolved Organic Carbon Leached from Senescent Plants in an Oligotrophic Wetland. <i>Biogeochemistry</i> , 2006, 78, 285-314.	3.5	114
74	Chemical characteristics of dissolved organic matter in an oligotrophic subtropical wetland/estuarine. <i>Limnology and Oceanography</i> , 2005, 50, 23-35.	3.1	65
75	Self-Assembly of the Mesoporous Electrode Material $\text{Li}_3\text{Fe}_2(\text{PO}_4)_3$ Using a Cationic Surfactant as the Template. <i>Advanced Materials</i> , 2004, 16, 2012-2017.	21.0	67
76	Slow Chain Dynamics in Isotactic-poly(4-methyl-1-pentene) Crystallites near the Glass Transition Temperature Characterized by Solid-State ^{13}C MAS Exchange NMR. <i>Macromolecules</i> , 2004, 37, 6460-6471.	4.8	37
77	Large-Amplitude Motions of Form III of Isotactic Poly(4-methyl-1-pentene) Crystallites Prior to Crystal \rightarrow Crystal Transformation. <i>Macromolecules</i> , 2004, 37, 6653-6656.	4.8	11
78	Slow Dynamics of Polymer Crystallites Revealed by Solid-State MAS Exchange NMR. <i>Kobunshi Ronbunshu</i> , 2004, 61, 442-457.	0.2	4
79	Side-Chain Conformation and Dynamics for the Form II Polymorph of Isotactic Poly(1-butene) Investigated by High-Resolution Solid-State ^{13}C NMR Spectroscopy. <i>Macromolecules</i> , 2002, 35, 6060-6063.	4.8	51
80	Helical Jump Motions in Isotactic Poly(4-methyl-1-pentene) Crystallites Revealed by 1D MAS Exchange NMR Spectroscopy. <i>Macromolecules</i> , 2002, 35, 7178-7181.	4.8	23
81	Effects of Xe Gas on Segmental Motion in a Polymer Blend As Studied by ^{13}C and ^{129}Xe High-Pressure MAS NMR. <i>Macromolecules</i> , 2002, 35, 151-154.	4.8	8
82	Chain Dynamics, Conformations, and Phase Transformations for Form III Polymorph of Isotactic Poly(1-butene) Investigated by High-Resolution Solid-State ^{13}C NMR Spectroscopy and Molecular Mechanics Calculations. <i>Macromolecules</i> , 2002, 35, 2624-2632.	4.8	40
83	Dynamic Alternation between Inter- and Intra-Polymer Hydrogen Bonds in a Polymer Complex As Studied by Solid-State ^{13}C 2D Exchange NMR. <i>Macromolecules</i> , 1999, 32, 8914-8917.	4.8	26
84	^{13}C High-Pressure CPMAS NMR Characterization of the Molecular Motion of Polystyrene Plasticized by CO_2 Gas. <i>Macromolecules</i> , 1997, 30, 6582-6585.	4.8	26
85	High-resolution solid state ^{13}C n.m.r. study of the interpolymer interaction, morphology and chain dynamics of the poly(acrylic acid)/poly(ethylene oxide) complex. <i>Polymer</i> , 1997, 38, 2315-2320.	3.8	81
86	^{129}Xe n.m.r. study of free volume and phase separation of the polystyrene/poly(vinyl methyl ether) blend. <i>Polymer</i> , 1997, 38, 5475-5480.	3.8	26
87	Structural analysis of polyacenic semiconductor (PAS) materials with ^{129}Xe NMR measurements. <i>Carbon</i> , 1997, 35, 1781-1787.	10.3	27
88	High-resolution solid-state ^{13}C nuclear magnetic resonance study of a polymer complex: poly(methacrylic acid)/poly(ethylene oxide). <i>Polymer</i> , 1996, 37, 11-18.	3.8	58
89	Probe diffusion in gels. <i>Physical Review E</i> , 1996, 53, 1823-1827.	2.1	52
90	^1H NMR Study of Hindered Internal Rotation and Hydrogen Exchange of Amide Side Chain of Poly(acrylamide) in Aqueous Solution. <i>Polymer Journal</i> , 1994, 26, 485-490.	2.7	3