Kohji Tashiro

List of Publications by Year
in descending order

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288 papers	11,973 citations	28190 55 h-index	37111 96 g-index
298 all docs	298 docs citations	298 times ranked	7396 citing authors

#	Article	IF	Citations
1	Molecular Vibrations of Three Crystal Forms of Poly(vinylidene fluoride). Macromolecules, 1975, 8, 158-171.	2.2	743
2	Disorder-to-Order Phase Transition and Multiple Melting Behavior of Poly(<scp>l</scp>-lactide) Investigated by Simultaneous Measurements of WAXD and DSC. Macromolecules, 2008, 41, 1352-1357.	2.2	737
3	Theoretical evaluation of three-dimensional elastic constants of native and regenerated celluloses: role of hydrogen bonds. Polymer, 1991, 32, 1516-1526.	1.8	419
4	Elastic Moduli and Molecular Structures of Several Crystalline Polymers, Including Aromatic Polyamides. Macromolecules, 1977, 10, 413-420.	2.2	259
5	Investigation of Phase Transitional Behavior of Poly(l-lactide)/Poly(d-lactide) Blend Used to Prepare the Highly-Oriented Stereocomplex. Macromolecules, 2007, 40, 1049-1054.	2.2	217
6	Electrospinning as a New Technique To Control the Crystal Morphology and Molecular Orientation of Polyoxymethylene Nanofibers. Journal of the American Chemical Society, 2008, 130, 15460-15466.	6.6	200
7	Crystal Structure Analysis of Poly(<scp>l</scp>-lactic Acid) Î± Form On the basis of the 2-Dimensional Wide-Angle Synchrotron X-ray and Neutron Diffraction Measurements. Macromolecules, 2011, 44, 6441-6452.	2.2	198
8	Vibrational spectra and disorder-order transition of poly(vinylidene fluoride) form III. Macromolecules, 1981, 14, 1757-1764.	2.2	193
9	Crystal Engineering for Topochemical Polymerization of Muconic Esters Using Halogenâ‹¯Halogen and CH/Ï€ Interactions as Weak Intermolecular Interactions. Journal of the American Chemical Society, 2002, 124, 8891-8902.	6.6	180
10	Crystal structure and disorder in Poly(l-lactic acid) Î´ form (Î±â€² form) and the phase transition mechanism to the ordered Î± form. Polymer, 2011, 52, 6097-6109.	1.8	178
11	Structural Investigation of Orthorhombic-to-Hexagonal Phase Transition in Polyethylene Crystal:Â The Experimental Confirmation of the Conformationally Disordered Structure by X-ray Diffraction and Infrared/Raman Spectroscopic Measurements. Macromolecules, 1996, 29, 7460-7469.	2.2	177
12	Structural phase transition in ferroelectric fluorine polymers: X-ray diffraction and infrared/Raman spectroscopic study. Phase Transitions, 1989, 18, 213-246.	0.6	171
13	Structural phase transitions of syndiotactic polystyrene. Progress in Polymer Science, 2009, 34, 280-315.	11.8	157
14	Solid-State Transition of Poly(butylene terephthalate) Induced by Mechanical Deformation. Macromolecules, 1980, 13, 137-145.	2.2	152
15	Structure and ferroelectric phase transition of vinylidene fluoride-trifluoroethylene copolymers: 2. VDF 55% copolymer. Polymer, 1984, 25, 195-208.	1.8	147
16	Confirmation of DisorderÎ± Form of Poly(L-lactic acid) by the X-ray Fiber Pattern and Polarized IR/Raman Spectra Measured for Uniaxially-Oriented Samples. Macromolecular Symposia, 2006, 242, 274-278.	0.4	135
17	Calculation of Three-Dimensional Elastic Constants of Polymer Crystals. 2. Application to Orthorhombic Polyethylene and Poly(vinyl alcohol). Macromolecules, 1978, 11, 914-918.	2.2	134
18	Molecular Mechanism of Solvent-Induced Crystallization of Syndiotactic Polystyrene Glass. 1. Time-Resolved Measurements of Infrared/Raman Spectra and X-ray Diffraction. Macromolecules, 2001, 34, 310-315.	2.2	130

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19	Intercalation of alkylamines into an organic polymer crystal. Nature, 2000, 405, 328-330.	13.7	128
20	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
21	Structural Regularization in the Crystallization Process from the Glass or Melt of Poly(<scp>l</scp>-lactic Acid) Viewed from the Temperature-Dependent and Time-Resolved Measurements of FTIR and Wide-Angle/Small-Angle X-ray Scatterings. Macromolecules, 2011, 44, 9650-9660.	2.2	121
22	Multipurpose soft-material SAXS/WAXS/GISAXS beamline at SPring-8. Polymer Journal, 2011, 43, 471-477.	1.3	112
23	Crystallization, spherulite growth, and structure of blends of crystalline and amorphous poly(lactide)s. Polymer, 2009, 50, 4007-4017.	1.8	110
24	Crystal and Lamella Structure and Câ^'HÂ·Â·Â·OC Hydrogen Bonding of Poly(3-hydroxyalkanoate) Studied by X-ray Diffraction and Infrared Spectroscopy. Macromolecules, 2006, 39, 1525-1531.	2.2	109
25	Reaction Principles and Crystal Structure Design for the Topochemical Polymerization of 1,3-Dienes. Angewandte Chemie - International Edition, 2002, 41, 2502-2505.	7.2	107
26	Refinement of the Crystal Structures of Forms I and II of Isotactic Polybutene-1 and a Proposal of Phase Transition Mechanism between Them. Macromolecules, 2016, 49, 1392-1404.	2.2	104
27	Molecular theory of mechanical properties of crystalline polymers. Progress in Polymer Science, 1993, 18, 377-435.	11.8	103
28	Structural Changes in Thermally Induced Phase Transitions of Uniaxially Oriented Î´eForm of Syndiotactic Polystyrene Investigated by Temperature-Dependent Measurements of X-ray Fiber Diagrams and Polarized Infrared Spectra. Macromolecules, 2006, 39, 8412-8418.	2.2	101
29	Crystal Structure of Poly(lactic acid) Stereocomplex: Random Packing Model of PDLA and PLLA Chains As Studied by X-ray Diffraction Analysis. Macromolecules, 2017, 50, 8048-8065.	2.2	100
30	Structural change in the Brill transition of Nylon m/n (2) conformational disordering as viewed from the temperature-dependent infrared spectral measurements. Polymer, 2003, 44, 6407-6417.	1.8	94
31	Crystalline Phases in Nylon-11:Â Studies Using HTWAXS and HTFTIR. Macromolecules, 2006, 39, 2841-2848.	2.2	93
32	Crystal Structure and Packing Disorder of Poly(p-phenylenebenzobisoxazole):Â Structural Analysis by an Organized Combination of X-ray Imaging Plate System and Computer Simulation Technique. Macromolecules, 1998, 31, 5430-5440.	2.2	85
33	Cocrystallization and phase segregation of polyethylene blends. 1. Thermal and vibrational spectroscopic study by utilizing the deuteration technique. Macromolecules, 1992, 25, 1801-1808.	2.2	84
34	Structural changes in isothermal crystallization process of polyoxymethylene investigated by time-resolved FTIR, SAXS and WAXS measurements. Polymer, 2003, 44, 6973-6988.	1.8	82
35	Crystalline-State Polymerization of Diethyl(Z,Z)-2,4-Hexadienedioate via a Radical Chain Reaction Mechanism To Yield an Ultrahigh-Molecular-Weight and Stereoregular Polymer. Macromolecules, 1998, 31, 2129-2136.	2.2	79
36	Molecular Mechanism of Solvent-Induced Crystallization of Syndiotactic Polystyrene Glass. 2. Detection of Enhanced Motion of the Amorphous Chains in the Induction Period of Crystallization. Macromolecules, 2002, 35, 410-414.	2.2	79

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37	Calculation of three-dimensional elastic constants of polymer crystals. 3. Î± and Î³ Forms of nylon 6. Macromolecules, 1981, 14, 781-785.	2.2	76
38	Polarized Raman spectra and LO-TO splitting of poly(vinylidene fluoride) crystal form I. Macromolecules, 1985, 18, 2600-2606.	2.2	74
39	Crystallization behavior of poly(lactic acid)/microfibrillated cellulose composite. Polymer, 2013, 54, 3417-3425.	1.8	74
40	Phase transition at a temperature immediately below the melting point of poly(vinylidene fluoride) from I: A proposition for the ferroelectric Curie point. Polymer, 1983, 24, 199-204.	1.8	71
41	Cocrystallization and phase segregation of polyethylene blends. 2. Synchrotron-sourced x-ray scattering and small-angle light scattering study of the blends between the D and H species. Macromolecules, 1992, 25, 1809-1815.	2.2	70
42	Structural change in the Brill transition of Nylon m/n (1) Nylon 10/10 and its model compounds. Polymer, 2003, 44, 7007-7019.	1.8	70
43	Isotropically small crystalline lamellae induced by high biaxial-stretching rate as a key microstructure for super-tough polylactide film. Polymer, 2015, 68, 234-245.	1.8	69
44	Structural changes in non-isothermal crystallization process of melt-cooled polyoxymethylene. [I] Detection of infrared bands characteristic of folded and extended chain crystal morphologies and extraction of a lamellar stacking model. Polymer, 2003, 44, 3107-3116.	1.8	68
45	Synchronous and separate homo-crystallization of enantiomeric poly(l-lactic acid)/poly(d-lactic acid) blends. Polymer, 2012, 53, 747-754.	1.8	67
46	Cocrystallization and Phase Segregation of Polyethylene Blends between the D and H Species. 3.Blend Content Dependence of the Crystallization Behavior. Macromolecules, 1994, 27, 1221-1227.	2.2	65
47	Isothermal Crystallization Behavior of Isotactic Polypropylene H/D Blends as Viewed from Time-Resolved FTIR and Synchrotron SAXS/WAXD Measurements. Macromolecules, 2009, 42, 4191-4199.	2.2	64
48	First Success in Direct Analysis of Microscopic Deformation Mechanism of Polydiacetylene Single Crystal by the X-ray Imaging-Plate System. Macromolecules, 1996, 29, 8188-8196.	2.2	63
49	Crystal Structure of Ethyleneâ^'Vinyl Alcohol Copolymers. Macromolecules, 1999, 32, 5860-5871.	2.2	62
50	Reinvestigation of Crystal Structure and Intermolecular Interactions of Biodegradable Poly(3-Hydroxybutyrate) Î±-Form and the Prediction of Its Mechanical Property. Macromolecules, 2016, 49, 581-594.	2.2	60
51	Polyglycolide as a Biodegradable Nucleating Agent for Poly(<scp>L</scp>â€lactide). Macromolecular Materials and Engineering, 2008, 293, 947-951.	1.7	59
52	A study of the extraordinarily strong and tough silk produced by bagworms. Nature Communications, 2019, 10, 1469.	5.8	59
53	Cocrystallization and Phase Segregation of Polyethylene Blends between the D and H Species. 7. Time-Resolved Synchrotron-Source Small-Angle X-ray Scattering Measurements for Studying the Isothermal Crystallization Kinetics: Comparison with the FTIR Data. Macromolecules, 1995, 28, 8477-8483.	2.2	58
54	Microscopically viewed structural change of PE during the isothermal crystallization from the melt. Polymer, 1999, 40, 7125-7135.	1.8	58

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55	Structural heterogeneity and stress distribution in carbon fiber monofilament as revealed by synchrotron micro-beam X-ray scattering and micro-Raman spectral measurements. Carbon, 2011, 49, 1646-1652.	5.4	58
56	Calculation of Three-Dimensional Elastic Constants of Polymer Crystals. 1. Method of Calculation. Macromolecules, 1978, 11, 908-913.	2.2	56
57	Microscopically-Viewed Structural Change of Polyethylene during Isothermal Crystallization from the Melt I. Time-Resolved FT-IR Spectral Measurements. Polymer Journal, 1998, 30, 485-491.	1.3	56
58	Structural changes in non-isothermal crystallization process of melt-cooled polyoxymethylene[II] evolution of lamellar stacking structure derived from SAXS and WAXS data analysis. Polymer, 2003, 44, 2159-2168.	1.8	56
59	Theoretical Elastic Moduli and Conformations of Polymer Chains. Macromolecules, 1977, 10, 731-736.	2.2	55
60	Polymerâ^'Solvent Interactions in Crystalline Î´ Form of Syndiotactic Polystyrene Viewed from the Solvent-Exchange Process in the Î´ Form and the Solvent Evaporation Phenomenon in the Thermally Induced Î´â^'Î³ Phase Transition. Macromolecules, 2003, 36, 3593-3600.	2.2	54
61	Annealing effect on the ferroelectric phase transition behavior and domain structure of vinylidene fluoride (VDF)â€“trifluoroethylene copolymers: a comparison between uniaxially oriented VDF 73 and 65% copolymers. Polymer, 1999, 40, 3855-3865.	1.8	53
62	Phase Transition Mechanism of Poly(<scp>l</scp>-lactic acid) among the Î±, Î´, and Î² Forms on the Basis of the Reinvestigated Crystal Structure of the Î² Form. Macromolecules, 2017, 50, 3285-3300.	2.2	53
63	Theoretical Young's moduli of poly(p-phenylenebenzobisthiazole) and poly(p-phenylenebenzobisoxazole). Macromolecules, 1991, 24, 3706-3708.	2.2	52
64	Cocrystallization and Phase Segregation of Polyethylene Blends between the D and H Species.6.Time-Resolved FTIR Measurements for Studying the Crystallization Kinetics of the Blends under Isothermal Conditions. Macromolecules, 1994, 27, 1240-1244.	2.2	51
65	Molecular dynamics simulation of the structural and mechanical property changes in the Brill transition of nylon 10/10 crystal. Polymer, 2004, 45, 4337-4348.	1.8	51
66	Experimental station for multiscale surface structural analyses of soft-material films at SPring-8 via a GISWAX/GIXD/XR-integrated system. Polymer Journal, 2013, 45, 109-116.	1.3	51
67	Structure Analysis of Monomer and Polymer Crystals in the Photoinduced Solid-State Polymerization Reaction of Diethyl cis,cis-Muconate. Macromolecules, 1999, 32, 7946-7950.	2.2	50
68	Solvent Effect on the Glass Transition Temperature of Syndiotactic Polystyrene Viewed from Time-Resolved Measurements of Infrared Spectra at the Various Temperatures and Its Simulation by Molecular Dynamics Calculation. Macromolecules, 2004, 37, 467-472.	2.2	50
69	Structural Investigation on Water-Induced Phase Transitions of Poly(ethylene imine). 1. Time-Resolved Infrared Spectral Measurements in the Hydration Process. Macromolecules, 2002, 35, 4330-4336.	2.2	48
70	Structure of Physical Gels Formed in Syndiotactic Polystyrene/Solvent Systems Studied by Small-Angle Neutron Scattering. Macromolecules, 1994, 27, 1349-1354.	2.2	47
71	Vibrational Spectra and Theoretical Three-Dimensional Elastic Constants of Isotactic Polypropylene Crystal. An Important Role of Anharmonic Vibrations.. Polymer Journal, 1992, 24, 899-916.	1.3	47
72	Structural study of the ferroelectric phase transition of vinylidene fluoride-trifluoroethylene copolymers: 4. Poling effect on structure and phase transition. Polymer, 1986, 27, 667-676.	1.8	46

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73	Structural deformation behavior of isotactic polypropylene with different molecular characteristics during hot drawing process. Polymer, 2005, 46, 8846-8858.	1.8	46
74	Annealing effect on ferroelectric phase transitional behavior of vinylidene fluoride-trifluoroethylene copolymers: An interpretation based on the concept of domain and trans-gauche conformational disorder. Ferroelectrics, 1995, 171, 145-162.	0.3	45
75	Theoretical and Experimental Evaluation of Crystallite Moduli of Various Crystalline Forms of Poly(<scp>l</scp>-lactic acid). Macromolecules, 2012, 45, 7019-7026.	2.2	45
76	Quantitative Crystal Structure Analysis of Poly(vinyl Alcohol)â€“Iodine Complexes on the Basis of 2D X-ray Diffraction, Raman Spectra, and Computer Simulation Techniques. Macromolecules, 2015, 48, 2138-2148.	2.2	45
77	Structural Change in the Topochemical Solid-State Polymerization Process of Diethylcis,cis-Muconate Crystal. 1. Investigation of Polymerization Process by Means of X-ray Diffraction, Infrared/Raman Spectra, and DSC. Macromolecules, 1999, 32, 2449-2454.	2.2	42
78	Structural changes in ferroelectric phase transitions of vinylidene fluoride-tetrafluoroethylene copolymers: 1. Vinylidene fluoride content dependence of the transition behaviour. Polymer, 1992, 33, 2915-2928.	1.8	41
79	Infrared Bands Sensitive to the Chain Packing Mode in the Crystalline Î´, Î´e, and Î³ Forms of Syndiotactic Polystyrene. Macromolecules, 2003, 36, 3001-3003.	2.2	41
80	Effect of Elevated Temperatures on the States of Water and Their Correlation with the Proton Conductivity of Nafion. ACS Omega, 2018, 3, 349-360.	1.6	40
81	Molecular theoretical study of the intimate relationships between structure and mechanical properties of polymer crystals. Polymer, 1996, 37, 1775-1786.	1.8	39
82	Conformational disorder in the Brill transition of uniaxially-oriented nylon 10/10 sample investigated through the temperature-dependent measurement of X-ray fiber diagram. Polymer, 2004, 45, 6349-6355.	1.8	39
83	Structural correlation between crystal lattice and lamellar morphology in the ferroelectric phase transition of vinylidene fluorideâ€“trifluoroethylene copolymers as revealed by the simultaneous measurements of wide-angle and small-angle X-ray scatterings. Polymer, 2006, 47, 5433-5444.	1.8	39
84	Stress distribution in poly-p-phenylenebenzobisoxazole (PBO) fiber as viewed from vibrational spectroscopic measurement under tension. I. Stress-induced frequency shifts of Raman bands and molecular deformation mechanism. Journal of Polymer Science, Part B: Polymer Physics, 2002, 40, 1269-1280.	2.4	38
85	Kinetic Control of Chlorine Packing in Crystals of a Precisely Substituted Polyethylene. Toward Advanced Polyolefin Materials. Macromolecules, 2014, 47, 236-245.	2.2	38
86	X-ray Crystal Structure Analysis of Poly(3-hydroxybutyrate) Î²-Form and the Proposition of a Mechanism of the Stress-Induced Î±-to-Î² Phase Transition. Macromolecules, 2019, 52, 2995-3009.	2.2	38
87	Development of a new software for the X-ray structural analysis of polymer crystals by utilizing the X-ray imaging plate system. Journal of Polymer Science, Part B: Polymer Physics, 1997, 35, 1677-1700.	2.4	37
88	Structural Changes in Phase Transitions of Nylon Model Compounds. 1. Transition Behavior of Model Compounds of R-NHCO-Râ€˜ Type. Journal of Physical Chemistry B, 2003, 107, 11835-11842.	1.2	37
89	Structural Correlation between Crystal Lattice and Lamellar Morphology in the Phase Transitions of Uniaxially Oriented Syndiotactic Polystyrene (Î´ and Î´_e Forms) As Revealed by Simultaneous Measurements of Wide-Angle and Small-Angle X-ray Scatterings. Macromolecules, 2008, 41, 2541-2547.	2.2	37
90	Relationship between Morphological Change and Crystalline Phase Transitions of Polyethyleneâ€'Poly(ethylene Oxide) Diblock Copolymers, Revealed by the Temperature-dependent Synchrotron WAXD/SAXS and Infrared/Raman Spectral Measurements. Journal of Physical Chemistry B, 2009, 113, 2338-2346.	1.2	37

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91	Molecular Orientation Enhancement of Silk by the Hot-Stretching-Induced Transition from Î±-Helix-HFIP Complex to Î²-Sheet. Biomacromolecules, 2016, 17, 1437-1448.	2.6	37
92	Confirmation of the X-ray-Analyzed Heterogeneous Distribution of the PDLA and PLLA Chain Stems in the Crystal Lattice of Poly(lactic acid) Stereocomplex on the Basis of the Vibrational Circular Dichroism IR Spectral Measurement. Macromolecules, 2017, 50, 8066-8071.	2.2	37
93	Cocrystallization and Phase Segregation of Polyethylene Blends between the D and H Species.4.The Crystallization Behavior As Viewed from the Infrared Spectral Changes. Macromolecules, 1994, 27, 1228-1233.	2.2	36
94	Cocrystallization and Phase Segregation of Polyethylene Blends between the D and H Species. 8. Small-Angle Neutron Scattering Study of the Molten State and the Structural Relationship of Chains between the Melt and the Crystalline State. Macromolecules, 1995, 28, 8484-8490.	2.2	36
95	A study on mechanical deformation of highly oriented poly(oxymethylene) by vibrational spectroscopy and X-ray diffraction: stress and temperature dependences of Young's modulus. Macromolecules, 1989, 22, 758-765.	2.2	35
96	Relation between higher-order structure and crystalline phase transition of oriented isotactic polybutene-1 investigated by temperature-dependent time-resolved simultaneous WAXD/SAXS measurements. Polymer, 2016, 90, 165-177.	1.8	35
97	Reinvestigation of the Î²-to-Î± Crystal Phase Transition of Poly(butylene adipate) by the Time-Resolved X-ray Scattering and FTIR Spectral Measurements in the Temperature-Jump Process. Macromolecules, 2017, 50, 3883-3889.	2.2	35
98	X-ray study of lattice tensile properties of fully extended aromatic polyamide fibers over a wide temperature range. Macromolecules, 1987, 20, 347-351.	2.2	34
99	Crystallization behavior of nano-composite based on poly(vinylidene fluoride) and organically modified layered titanate. Polymer, 2008, 49, 4298-4306.	1.8	34
100	Real-time investigation of crystallization in nylon 6-clay nano-composite probed by infrared spectroscopy. Polymer, 2010, 51, 5585-5591.	1.8	34
101	Stress-induced microstructural changes and crystallite modulus of carbon fiber as measured by X-ray scattering. Carbon, 2012, 50, 1163-1169.	5.4	34
102	Hierarchical Structural Change in the Stress-Induced Phase Transition of Poly(tetramethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 307 Undulator WAXD/SAXS Data. Macromolecules, 2014, 47, 2052-2061.	2.2	34
103	Cocrystallization and phase segregation of polyethylene blends between the D and H species. 5. Structural studies of the blends as viewed from different levels of unit cell to spherulite. Macromolecules, 1994, 27, 1234-1239.	2.2	33
104	Development of a simultaneous measurement system of x-ray diffraction and raman spectra: Application to structural study of crystalline-phase transitions of chain molecules. Journal of Polymer Science, Part B: Polymer Physics, 2002, 40, 495-506.	2.4	33
105	Cocrystallization Phenomenon between the H and D Species of Isotactic Polypropylene Blends As Revealed by Thermal and Infrared Spectroscopic Analyses for a Series of D/H Blend Samples. Macromolecules, 2008, 41, 9807-9813.	2.2	33
106	Clarification of Cross-Linkage Structure in Boric Acid Doped Poly(vinyl alcohol) and Its Model Compound As Studied by an Organized Combination of X-ray Single-Crystal Structure Analysis, Raman Spectroscopy, and Density Functional Theoretical Calculation. Journal of Physical Chemistry B, 2014, 118, 6032-6037.	1.2	33
107	Extraction of Hydrogen-Atom Positions in Polyethylene Crystal Lattice from Wide-Angle Neutron Diffraction Data Collected by a Two-Dimensional Imaging Plate System:Â Comparison with the X-ray and Electron Diffraction Results. Macromolecules, 2004, 37, 4109-4117.	2.2	32
108	Factors Governing the Three-Dimensional Hydrogen Bond Network Structure of Poly(m-phenylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 Analyzed by the X-ray Diffraction Method. Journal of Physical Chemistry B, 2002, 106, 6842-6848.	1.2	31

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109	Structural Refinement and Extraction of Hydrogen Atomic Positions in Polyoxymethylene Crystal Based on the First Successful Measurements of 2-Dimensional High-Energy Synchrotron X-ray Diffraction and Wide-Angle Neutron Diffraction Patterns of Hydrogenated and Deuterated Species. Polymer Journal, 2007, 39, 1253-1273.	1.3	31
110	Quasiharmonic treatment of infrared and raman vibrational frequency shifts induced by tensile deformation of polymer chains. Journal of Polymer Science, Part B: Polymer Physics, 1990, 28, 2527-2553.	2.4	30
111	Quasiharmonic treatment of infrared and raman vibrational frequency shifts induced by tensile deformation of polymer chains. II. Application to the polyoxymethylene and isotactic polypropylene single chains and the three-dimensional orthorhombic polyethylene crystal. Journal of Polymer Science, Part B: Polymer Physics, 1992, 30, 1143-1155.	2.4	30
112	Stress concentration in carbon fiber revealed by the quantitative analysis of X-ray crystallite modulus and Raman peak shift evaluated for the variously-treated monofilaments under constant tensile forces. Carbon, 2013, 53, 29-37.	5.4	30
113	Real-time investigation of crystallization in poly(vinylidene fluoride)-based nano-composites probed by infrared spectroscopy. Polymer, 2008, 49, 5186-5190.	1.8	28
114	Poly(acrylic acid-co-4-vinylimidazole)/Sulfonated poly(ether ether ketone) blend membranes: A role of polymer chain with proton acceptor and donor for enhancing proton transfer in anhydrous system. International Journal of Hydrogen Energy, 2011, 36, 10384-10391.	3.8	27
115	Systematic studies on benzimidazole derivatives: Molecular structures and their hydrogen bond networks formation toward proton transfer efficiency. Journal of Power Sources, 2011, 196, 6144-6152.	4.0	27
116	Stress distribution in poly-p-phenylenebenzobisoxazole (PBO) fiber estimated from vibrational spectroscopic measurement under tension. II. Analysis of inhomogeneous stress distribution in PBO fiber. Journal of Polymer Science, Part B: Polymer Physics, 2002, 40, 1281-1287.	2.4	26
117	Thermally- and solvent-induced crystallization kinetics of syndiotactic polystyrene viewed from time-resolved measurements of infrared spectra at the various temperatures (1) estimation of glass transition temperature shifted by solvent absorption. Polymer, 2003, 44, 6681-6688.	1.8	26
118	Structural Changes during Thermally Induced Phase Transitions Observed for Uniaxially Oriented Î´ Form of Syndiotactic Polystyrene. Macromolecules, 2007, 40, 6291-6295.	2.2	26
119	Experimentally- and theoretically-evaluated ultimate 3-dimensional elastic constants of trans-1,4-polyisoprene Îł and Î² crystalline forms on the basis of the newly-refined crystal structure information. Polymer, 2012, 53, 3548-3558.	1.8	26
120	Phase-transition behavior of a crystalline polymer near the melting point: case studies of the ferroelectric phase transition of poly(vinylidene fluoride) and the Î²-to-Îł transition of trans-1,4-polyisoprene. Polymer Journal, 2013, 45, 1107-1114.	1.3	26
121	Polymorphism and Phase Transitions of Precisely Halogen-Substituted Polyethylene. (1) Crystal Structures of Various Crystalline Modifications of Bromine-Substituted Polyethylene on Every 21st Backbone Carbon. Macromolecules, 2014, 47, 4738-4749.	2.2	26
122	Spatial Distribution of Chain Stems and Chain Folding Mode in Polyethylene Lamellae as Revealed by Coupled Information of DSC, FT-IR, SANS, and WANS. Polymer Journal, 1999, 31, 677-686.	1.3	25
123	Temperature dependence of crystal structure of uniaxially-oriented polyethylene analysed by an X-ray imaging plate system. Polymer, 1999, 40, 3469-3478.	1.8	25
124	Feature of Î³-Radiation Polymerization of Muconic Acid Derivatives in the Crystalline State. Macromolecules, 2000, 33, 7786-7792.	2.2	25
125	Confirmation of the crystal structure of poly(p-phenylene benzobisoxazole) by the X-ray structure analysis of model compounds and the energy calculation. Journal of Polymer Science, Part B: Polymer Physics, 2001, 39, 1296-1311.	2.4	25
126	Details of the intermolecular interactions in poly(vinyl alcohol)-iodine complexes as studied by quantum chemical calculations. Polymer, 2016, 99, 566-579.	1.8	25

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127	Quantitative evaluation of stress distribution in bulk polymer samples through the comparison of mechanical behaviors between giant single-crystal and semicrystalline samples of poly(trans-1,4-diethyl muconate). Journal of Polymer Science, Part B: Polymer Physics, 2003, 41, 444-453.	2.4	24
128	Electrical and mechanical properties of iodine-doped highly elongated ultrahigh molecular weight polyethylene films filled with multiwalled carbon nanotubes. Physical Review B, 2008, 77, .	1.1	24
129	Investigation of the role of benzimidazole-based model compounds on thermal stability and anhydrous proton conductivity of sulfonated poly(ether ether ketone). Solid State Ionics, 2009, 180, 738-745.	1.3	24
130	Crystalline Structure of Polyethylene Containing 1,2- or 1,3-Disubstituted Cyclopentane Units in the Main Chain. Macromolecules, 2002, 35, 9999-10003.	2.2	23
131	Structural Analysis of Polyoxymethylene Whisker Single Crystal by the Electron Diffraction Method. Macromolecules, 2004, 37, 826-830.	2.2	23
132	Development of Synchrotron DSC/WAXD/SAXS Simultaneous Measurement System for Polymeric Materials at the BL40B2 in SPring-8 and its Application to the Study of Crystal Phase Transitions of Fluorine Polymers. Polymer Journal, 2007, 39, 1281-1289.	1.3	23
133	Isotope Effect on the Isothermal Crystallization Behavior of Isotactic Polypropylene Blends between the Deuterated and Hydrogenated Species. Macromolecules, 2009, 42, 1672-1678.	2.2	23
134	Friction-induced dynamic chemical changes of tricresyl phosphate as lubricant additive observed under boundary lubrication with 2D fast imaging FTIR-ATR spectrometer. Wear, 2010, 268, 911-916.	1.5	23
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