

Kohji Tashiro

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#	Paper	IF	Citations
293	Molecular Vibrations of Three Crystal Forms of Poly(vinylidene fluoride). <i>Macromolecules</i> , 1975 , 8, 158-171	3.1	626
292	Disorder-to-Order Phase Transition and Multiple Melting Behavior of Poly(L-lactide) Investigated by Simultaneous Measurements of WAXD and DSC. <i>Macromolecules</i> , 2008 , 41, 1352-1357	5.5	622
291	Theoretical evaluation of three-dimensional elastic constants of native and regenerated celluloses: role of hydrogen bonds. <i>Polymer</i> , 1991 , 32, 1516-1526	3.9	372
290	Investigation of Phase Transitional Behavior of Poly(L-lactide)/Poly(D-lactide) Blend Used to Prepare the Highly-Oriented Stereocomplex. <i>Macromolecules</i> , 2007 , 40, 1049-1054	5.5	192
289	Elastic Moduli and Molecular Structures of Several Crystalline Polymers, Including Aromatic Polyamides. <i>Macromolecules</i> , 1977 , 10, 413-420	5.5	192
288	Electrospinning as a new technique to control the crystal morphology and molecular orientation of polyoxymethylene nanofibers. <i>Journal of the American Chemical Society</i> , 2008 , 130, 15460-6	16.4	177
287	Structural Investigation of Orthorhombic-to-Hexagonal Phase Transition in Polyethylene Crystal: The Experimental Confirmation of the Conformationally Disordered Structure by X-ray Diffraction and Infrared/Raman Spectroscopic Measurements. <i>Macromolecules</i> , 1996 , 29, 7460-7469	5.5	159
286	Crystal Structure Analysis of Poly(L-lactic Acid) β Form On the basis of the 2-Dimensional Wide-Angle Synchrotron X-ray and Neutron Diffraction Measurements. <i>Macromolecules</i> , 2011 , 44, 6441-6452	5.5	157
285	Vibrational spectra and disorder-order transition of poly(vinylidene fluoride) form III. <i>Macromolecules</i> , 1981 , 14, 1757-1764	5.5	155
284	Crystal engineering for topochemical polymerization of muconic esters using halogen-halogen and CH/ π interactions as weak intermolecular interactions. <i>Journal of the American Chemical Society</i> , 2002 , 124, 8891-902	16.4	153
283	Structural phase transition in ferroelectric fluorine polymers: X-ray diffraction and infrared/Raman spectroscopic study. <i>Phase Transitions</i> , 1989 , 18, 213-246	1.3	146
282	Crystal structure and disorder in Poly(L-lactic acid) β Form (β' Form) and the phase transition mechanism to the ordered β Form. <i>Polymer</i> , 2011 , 52, 6097-6109	3.9	140
281	Structural phase transitions of syndiotactic polystyrene. <i>Progress in Polymer Science</i> , 2009 , 34, 280-315	29.6	132
280	Structure and ferroelectric phase transition of vinylidene fluoride-trifluoroethylene copolymers: 2. VDF 55% copolymer. <i>Polymer</i> , 1984 , 25, 195-208	3.9	125
279	Confirmation of Disorder β Form of Poly(L-lactic acid) by the X-ray Fiber Pattern and Polarized IR/Raman Spectra Measured for Uniaxially-Oriented Samples. <i>Macromolecular Symposia</i> , 2006 , 242, 274-278	0.8	121
278	Solid-State Transition of Poly(butylene terephthalate) Induced by Mechanical Deformation. <i>Macromolecules</i> , 1980 , 13, 137-145	5.5	118
277	Molecular Mechanism of Solvent-Induced Crystallization of Syndiotactic Polystyrene Glass. 1. Time-Resolved Measurements of Infrared/Raman Spectra and X-ray Diffraction. <i>Macromolecules</i> , 2001 , 34, 310-315	5.5	116

276	Asymmetric mono-oxazine: an inevitable product from Mannich reaction of benzoxazine dimers. <i>Journal of the American Chemical Society</i> , 2001 , 123, 9947-55	16.4	111
275	Crystal and Lamella Structure and CH ₂ OH Hydrogen Bonding of Poly(3-hydroxyalkanoate) Studied by X-ray Diffraction and Infrared Spectroscopy. <i>Macromolecules</i> , 2006 , 39, 1525-1531	5.5	103
274	Structural Regularization in the Crystallization Process from the Glass or Melt of Poly(L-lactic Acid) Viewed from the Temperature-Dependent and Time-Resolved Measurements of FTIR and Wide-Angle/Small-Angle X-ray Scatterings. <i>Macromolecules</i> , 2011 , 44, 9650-9660	5.5	102
273	Intercalation of alkylamines into an organic polymer crystal. <i>Nature</i> , 2000 , 405, 328-30	50.4	102
272	Crystallization, spherulite growth, and structure of blends of crystalline and amorphous poly(lactide)s. <i>Polymer</i> , 2009 , 50, 4007-4017	3.9	101
271	Multipurpose soft-material SAXS/WAXS/GISAXS beamline at SPring-8. <i>Polymer Journal</i> , 2011 , 43, 471-477	1.7	100
270	Calculation of Three-Dimensional Elastic Constants of Polymer Crystals. 2. Application to Orthorhombic Polyethylene and Poly(vinyl alcohol). <i>Macromolecules</i> , 1978 , 11, 914-918	5.5	99
269	Structural Changes in Thermally Induced Phase Transitions of Uniaxially Oriented β Form of Syndiotactic Polystyrene Investigated by Temperature-Dependent Measurements of X-ray Fiber Diagrams and Polarized Infrared Spectra. <i>Macromolecules</i> , 2006 , 39, 8412-8418	5.5	92
268	Reaction principles and crystal structure design for the topochemical polymerization of 1,3-dienes. <i>Angewandte Chemie - International Edition</i> , 2002 , 41, 2502-5	16.4	90
267	Molecular theory of mechanical properties of crystalline polymers. <i>Progress in Polymer Science</i> , 1993 , 18, 377-435	29.6	81
266	Refinement of the Crystal Structures of Forms I and II of Isotactic Polybutene-1 and a Proposal of Phase Transition Mechanism between Them. <i>Macromolecules</i> , 2016 , 49, 1392-1404	5.5	80
265	Structural change in the Brill transition of Nylon m/n (2) conformational disordering as viewed from the temperature-dependent infrared spectral measurements. <i>Polymer</i> , 2003 , 44, 6407-6417	3.9	80
264	Crystalline Phases in Nylon-11: Studies Using HTWAXS and HTFTIR. <i>Macromolecules</i> , 2006 , 39, 2841-2848	9.5	74
263	Structural changes in isothermal crystallization process of polyoxymethylene investigated by time-resolved FTIR, SAXS and WAXS measurements. <i>Polymer</i> , 2003 , 44, 6973-6988	3.9	74
262	Cocrystallization and phase segregation of polyethylene blends. 1. Thermal and vibrational spectroscopic study by utilizing the deuteration technique. <i>Macromolecules</i> , 1992 , 25, 1801-1808	5.5	73
261	Crystal Structure of Poly(lactic acid) Stereocomplex: Random Packing Model of PDLA and PLLA Chains As Studied by X-ray Diffraction Analysis. <i>Macromolecules</i> , 2017 , 50, 8048-8065	5.5	71
260	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. <i>Macromolecules</i> , 2002 , 35, 410-414	5.5	71
259	Crystal Structure and Packing Disorder of Poly(p-phenylenebenzobisoxazole): Structural Analysis by an Organized Combination of X-ray Imaging Plate System and Computer Simulation Technique. <i>Macromolecules</i> , 1998 , 31, 5430-5440	5.5	70

258	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. <i>Macromolecules</i> , 1998 , 31, 2129-2136	5.5	65
257	Polarized Raman spectra and LO-TO splitting of poly(vinylidene fluoride) crystal form I. <i>Macromolecules</i> , 1985 , 18, 2600-2606	5.5	65
256	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. <i>Polymer</i> , 2003 , 44, 3107-3116	3.9	64
255	Phase transition at a temperature immediately below the melting point of poly(vinylidene fluoride) from I: A proposition for the ferroelectric Curie point. <i>Polymer</i> , 1983 , 24, 199-204	3.9	62
254	Calculation of three-dimensional elastic constants of polymer crystals. 3. β and β' Forms of nylon 6. <i>Macromolecules</i> , 1981 , 14, 781-785	5.5	62
253	Structural change in the Brill transition of Nylon m/n (1) Nylon 10/10 and its model compounds. <i>Polymer</i> , 2003 , 44, 7007-7019	3.9	60
252	Crystallization behavior of poly(lactic acid)/microfibrillated cellulose composite. <i>Polymer</i> , 2013 , 54, 3417-3425	3.9	59
251	Synchronous and separate homo-crystallization of enantiomeric poly(l-lactic acid)/poly(d-lactic acid) blends. <i>Polymer</i> , 2012 , 53, 747-754	3.9	58
250	First Success in Direct Analysis of Microscopic Deformation Mechanism of Polydiacetylene Single Crystal by the X-ray Imaging-Plate System. <i>Macromolecules</i> , 1996 , 29, 8188-8196	5.5	56
249	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. <i>Macromolecules</i> , 1992 , 25, 1809-1815	5.5	56
248	Isothermal Crystallization Behavior of Isotactic Polypropylene H/D Blends as Viewed from Time-Resolved FTIR and Synchrotron SAXS/WAXD Measurements. <i>Macromolecules</i> , 2009 , 42, 4191-4199	5.5	55
247	Polyglycolide as a Biodegradable Nucleating Agent for Poly(L-lactide). <i>Macromolecular Materials and Engineering</i> , 2008 , 293, 947-951	3.9	55
246	Crystal Structure of EthyleneVinyl Alcohol Copolymers. <i>Macromolecules</i> , 1999 , 32, 5860-5871	5.5	55
245	Cocrystallization and Phase Segregation of Polyethylene Blends between the D and H Species. 3. Blend Content Dependence of the Crystallization Behavior. <i>Macromolecules</i> , 1994 , 27, 1221-1227	5.5	54
244	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. <i>Macromolecules</i> , 1995 , 28, 8477-8483	5.5	52
243	Structural changes in non-isothermal crystallization process of melt-cooled polyoxymethylene [II] evolution of lamellar stacking structure derived from SAXS and WAXS data analysis. <i>Polymer</i> , 2003 , 44, 2159-2168	3.9	50
242	PolymerSolvent Interactions in Crystalline β Form of Syndiotactic Polystyrene Viewed from the Solvent-Exchange Process in the β Form and the Solvent Evaporation Phenomenon in the Thermally Induced β Phase Transition. <i>Macromolecules</i> , 2003 , 36, 3593-3600	5.5	50
241	Microscopically-Viewed Structural Change of Polyethylene during Isothermal Crystallization from the Melt I. Time-Resolved FT-IR Spectral Measurements. <i>Polymer Journal</i> , 1998 , 30, 485-491	2.7	49

240	Microscopically viewed structural change of PE during the isothermal crystallization from the melt. <i>Polymer</i> , 1999 , 40, 7125-7135	3.9	49
239	Isotropically small crystalline lamellae induced by high biaxial-stretching rate as a key microstructure for super-tough polylactide film. <i>Polymer</i> , 2015 , 68, 234-245	3.9	48
238	Structural heterogeneity and stress distribution in carbon fiber monofilament as revealed by synchrotron micro-beam X-ray scattering and micro-Raman spectral measurements. <i>Carbon</i> , 2011 , 49, 1646-1652	10.4	48
237	Reinvestigation of Crystal Structure and Intermolecular Interactions of Biodegradable Poly(3-Hydroxybutyrate) Form and the Prediction of Its Mechanical Property. <i>Macromolecules</i> , 2016 , 49, 581-594	5.5	46
236	Annealing effect on the ferroelectric phase transition behavior and domain structure of vinylidene fluoride (VDF)-trifluoroethylene copolymers: a comparison between uniaxially oriented VDF 73 and 65% copolymers. <i>Polymer</i> , 1999 , 40, 3855-3865	3.9	45
235	Experimental station for multiscale surface structural analyses of soft-material films at SPring-8 via a GISWAX/GIXD/XR-integrated system. <i>Polymer Journal</i> , 2013 , 45, 109-116	2.7	44
234	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. <i>Macromolecules</i> , 2004 , 37, 467-472	5.5	44
233	Structural deformation behavior of isotactic polypropylene with different molecular characteristics during hot drawing process. <i>Polymer</i> , 2005 , 46, 8846-8858	3.9	44
232	Molecular dynamics simulation of the structural and mechanical property changes in the Brill transition of nylon 10/10 crystal. <i>Polymer</i> , 2004 , 45, 4337-4348	3.9	43
231	Structure Analysis of Monomer and Polymer Crystals in the Photoinduced Solid-State Polymerization Reaction of Diethyl cis,cis-Muconate. <i>Macromolecules</i> , 1999 , 32, 7946-7950	5.5	43
230	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. <i>Macromolecules</i> , 1994 , 27, 1240-1244	5.5	42
229	Calculation of Three-Dimensional Elastic Constants of Polymer Crystals. 1. Method of Calculation. <i>Macromolecules</i> , 1978 , 11, 908-913	5.5	42
228	Infrared Bands Sensitive to the Chain Packing Mode in the Crystalline β , and β' Forms of Syndiotactic Polystyrene. <i>Macromolecules</i> , 2003 , 36, 3001-3003	5.5	41
227	Structure of Physical Gels Formed in Syndiotactic Polystyrene/Solvent Systems Studied by Small-Angle Neutron Scattering. <i>Macromolecules</i> , 1994 , 27, 1349-1354	5.5	41
226	Structural Investigation on Water-Induced Phase Transitions of Poly(ethylene imine). 1. Time-Resolved Infrared Spectral Measurements in the Hydration Process. <i>Macromolecules</i> , 2002 , 35, 4330-4336	5.5	40
225	Structural study of the ferroelectric phase transition of vinylidene fluoride-trifluoroethylene copolymers: 4. Poling effect on structure and phase transition. <i>Polymer</i> , 1986 , 27, 667-676	3.9	40
224	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. <i>Ferroelectrics</i> , 1995 , 171, 145-162	0.6	39
223	Theoretical Young's moduli of poly(p-phenylenebenzobisthiazole) and poly(p-phenylenebenzobisoxazole). <i>Macromolecules</i> , 1991 , 24, 3706-3708	5.5	39

222	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. <i>Macromolecules</i> , 1999 , 32, 2449-2454	5.5	38
221	Structural changes in ferroelectric phase transitions of vinylidene fluoride-tetrafluoroethylene copolymers: 1. Vinylidene fluoride content dependence of the transition behaviour. <i>Polymer</i> , 1992 , 33, 2915-2928	3.9	38
220	Theoretical Elastic Moduli and Conformations of Polymer Chains. <i>Macromolecules</i> , 1977 , 10, 731-736	5.5	37
219	Vibrational Spectra and Theoretical Three-Dimensional Elastic Constants of Isotactic Polypropylene Crystal. An Important Role of Anharmonic Vibrations.. <i>Polymer Journal</i> , 1992 , 24, 899-916	2.7	37
218	Theoretical and Experimental Evaluation of Crystallite Moduli of Various Crystalline Forms of Poly(l-lactic acid). <i>Macromolecules</i> , 2012 , 45, 7019-7026	5.5	36
217	Phase Transition Mechanism of Poly(l-lactic acid) among the β and β' Forms on the Basis of the Reinvestigated Crystal Structure of the β' Form. <i>Macromolecules</i> , 2017 , 50, 3285-3300	5.5	35
216	A study of the extraordinarily strong and tough silk produced by bagworms. <i>Nature Communications</i> , 2019 , 10, 1469	17.4	35
215	Development of a new software for the X-ray structural analysis of polymer crystals by utilizing the X-ray imaging plate system. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1997 , 35, 1677-1700	2.6	34
214	Conformational disorder in the Brill transition of uniaxially-oriented nylon 10/10 sample investigated through the temperature-dependent measurement of X-ray fiber diagram. <i>Polymer</i> , 2004 , 45, 6349-6355	3.9	34
213	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. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2002 , 40, 1269-1280	2.6	34
212	Structural correlation between crystal lattice and lamellar morphology in the ferroelectric phase transition of vinylidene fluoride-trifluoroethylene copolymers as revealed by the simultaneous measurements of wide-angle and small-angle X-ray scatterings. <i>Polymer</i> , 2006 , 47, 5433-5444	3.9	33
211	Molecular theoretical study of the intimate relationships between structure and mechanical properties of polymer crystals. <i>Polymer</i> , 1996 , 37, 1775-1786	3.9	33
210	Quantitative Crystal Structure Analysis of Poly(vinyl Alcohol)Uridine Complexes on the Basis of 2D X-ray Diffraction, Raman Spectra, and Computer Simulation Techniques. <i>Macromolecules</i> , 2015 , 48, 2138-2148	5.5	32
209	Kinetic Control of Chlorine Packing in Crystals of a Precisely Substituted Polyethylene. Toward Advanced Polyolefin Materials. <i>Macromolecules</i> , 2014 , 47, 236-245	5.5	32
208	Relationship between morphological change and crystalline phase transitions of polyethylene-poly(ethylene oxide) diblock copolymers, revealed by the temperature-dependent synchrotron WAXD/SAXS and infrared/Raman spectral measurements. <i>Journal of Physical Chemistry B</i> , 2009 , 113, 2338-46	3.4	32
207	Structural Correlation between Crystal Lattice and Lamellar Morphology in the Phase Transitions of Uniaxially Oriented Syndiotactic Polystyrene (β and β' Forms) As Revealed by Simultaneous Measurements of Wide-Angle and Small-Angle X-ray Scatterings. <i>Macromolecules</i> , 2008 , 41, 2541-2547	5.5	32
206	Crystallization behavior of nano-composite based on poly(vinylidene fluoride) and organically modified layered titanate. <i>Polymer</i> , 2008 , 49, 4298-4306	3.9	32
205	Structural Changes in Phase Transitions of Nylon Model Compounds. 1. Transition Behavior of Model Compounds of R-NHCO-R' Type. <i>Journal of Physical Chemistry B</i> , 2003 , 107, 11835-11842	3.4	32

204	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. <i>Macromolecules</i> , 1995 , 28, 8484-8490	5.5	32
203	Molecular Orientation Enhancement of Silk by the Hot-Stretching-Induced Transition from β -Helix-HFIP Complex to β -Sheet. <i>Biomacromolecules</i> , 2016 , 17, 1437-48	6.9	31
202	Real-time investigation of crystallization in nylon 6-clay nano-composite probed by infrared spectroscopy. <i>Polymer</i> , 2010 , 51, 5585-5591	3.9	31
201	X-ray study of lattice tensile properties of fully extended aromatic polyamide fibers over a wide temperature range. <i>Macromolecules</i> , 1987 , 20, 347-351	5.5	31
200	Reinvestigation of the β -to- α Crystal Phase Transition of Poly(butylene adipate) by the Time-Resolved X-ray Scattering and FTIR Spectral Measurements in the Temperature-Jump Process. <i>Macromolecules</i> , 2017 , 50, 3883-3889	5.5	29
199	Stress-induced microstructural changes and crystallite modulus of carbon fiber as measured by X-ray scattering. <i>Carbon</i> , 2012 , 50, 1163-1169	10.4	29
198	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. <i>Macromolecules</i> , 2008 , 41, 9807-9813	5.5	29
197	Cocrystallization and Phase Segregation of Polyethylene Blends between the D and H Species.4.The Crystallization Behavior As Viewed from the Infrared Spectral Changes. <i>Macromolecules</i> , 1994 , 27, 1228-1233	5.5	29
196	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. <i>Polymer Journal</i> , 2007 , 39, 1253-1273	2.7	28
195	Extraction of Hydrogen-Atom Positions in Polyethylene Crystal Lattice from Wide-Angle Neutron Diffraction Data Collected by a Two-Dimensional Imaging Plate System: Comparison with the X-ray and Electron Diffraction Results. <i>Macromolecules</i> , 2004 , 37, 4109-4117	5.5	28
194	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. <i>Macromolecules</i> , 2017 , 50, 8066-8071	5.5	27
193	Relation between higher-order structure and crystalline phase transition of oriented isotactic polybutene-1 investigated by temperature-dependent time-resolved simultaneous WAXD/SAXS measurements. <i>Polymer</i> , 2016 , 90, 165-177	3.9	27
192	Hierarchical Structural Change in the Stress-Induced Phase Transition of Poly(tetramethylene terephthalate) As Studied by the Simultaneous Measurement of FTIR Spectra and 2D Synchrotron Undulator WAXD/SAXS Data. <i>Macromolecules</i> , 2014 , 47, 2052-2061	5.5	27
191	Real-time investigation of crystallization in poly(vinylidene fluoride)-based nano-composites probed by infrared spectroscopy. <i>Polymer</i> , 2008 , 49, 5186-5190	3.9	27
190	Development of a simultaneous measurement system of x-ray diffraction and raman spectra: Application to structural study of crystalline-phase transitions of chain molecules. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2002 , 40, 495-506	2.6	27
189	Factors Governing the Three-Dimensional Hydrogen Bond Network Structure of Poly(m-phenylene isophthalamide) and a Series of Its Model Compounds: (1) Systematic Classification of Structures Analyzed by the X-ray Diffraction Method. <i>Journal of Physical Chemistry B</i> , 2002 , 106, 6842-6848	3.4	27
188	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. <i>Macromolecules</i> , 1994 , 27, 1234-1239	5.5	27
187	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. <i>Journal of Physical Chemistry B</i> , 2014 , 118, 6022-7	3.4	26

186	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. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1992 , 30, 1143-1155	2.6	26
185	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. <i>Carbon</i> , 2013 , 53, 29-37	10.4	25
184	Stress distribution in poly-p-phenylenebenzobisoxazole (PBO) fiber estimated from vibrational spectroscopic measurement under tension. II. Analysis of inhomogeneous stress distribution in PBO fiber. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2002 , 40, 1281-1287	2.6	25
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182	X-ray Crystal Structure Analysis of Poly(3-hydroxybutyrate) Form and the Proposition of a Mechanism of the Stress-Induced β -Phase Transition. <i>Macromolecules</i> , 2019 , 52, 2995-3009	5.5	24
181	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. <i>Macromolecules</i> , 2014 , 47, 4738-4749	5.5	24
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179	Systematic studies on benzimidazole derivatives: Molecular structures and their hydrogen bond networks formation toward proton transfer efficiency. <i>Journal of Power Sources</i> , 2011 , 196, 6144-6152	8.9	24
178	Electrical and mechanical properties of iodine-doped highly elongated ultrahigh molecular weight polyethylene films filled with multiwalled carbon nanotubes. <i>Physical Review B</i> , 2008 , 77,	3.3	24
177	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. <i>Polymer</i> , 2003 , 44, 6681-6688	3.9	24
176	Feature of Radiation Polymerization of Muconic Acid Derivatives in the Crystalline State. <i>Macromolecules</i> , 2000 , 33, 7786-7792	5.5	24
175	Quasiharmonic treatment of infrared and raman vibrational frequency shifts induced by tensile deformation of polymer chains. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1990 , 28, 2527-2553	2.6	24
174	Effect of Elevated Temperatures on the States of Water and Their Correlation with the Proton Conductivity of Nafion. <i>ACS Omega</i> , 2018 , 3, 349-360	3.9	23
173	Experimentally- and theoretically-evaluated ultimate 3-dimensional elastic constants of trans-1,4-polyisoprene and crystalline forms on the basis of the newly-refined crystal structure information. <i>Polymer</i> , 2012 , 53, 3548-3558	3.9	23
172	Investigation of the role of benzimidazole-based model compounds on thermal stability and anhydrous proton conductivity of sulfonated poly(ether ether ketone). <i>Solid State Ionics</i> , 2009 , 180, 738-745	3.3	23
171	Structural Changes during Thermally Induced Phase Transitions Observed for Uniaxially Oriented Form of Syndiotactic Polystyrene. <i>Macromolecules</i> , 2007 , 40, 6291-6295	5.5	23
170	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). <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2003 , 41, 444-453	2.6	22
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