Tetsuo Asakura

List of Publications by Year
in descending order

415	13,204	23544	43868
papers	citations	58 h-index	91 g-index

423	423	423	6722
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Conformational characterization of Bombyx mori silk fibroin in the solid state by high-frequency carbon-13 cross polarization-magic angle spinning NMR, x-ray diffraction, and infrared spectroscopy. Macromolecules, 1985, 18, 1841-1845.	2.2	330
2	Study of Protein Conformation and Orientation in Silkworm and Spider Silk Fibers Using Raman Microspectroscopy. Biomacromolecules, 2004, 5, 2247-2257.	2.6	285
3	Preparation of non-woven nanofibers of Bombyx mori silk, Samia cynthia ricini silk and recombinant hybrid silk with electrospinning method. Polymer, 2003, 44, 841-846.	1.8	251
4	A repeated Î²-turn structure in Poly(Ala-Gly) as a model for silk I of Bombyx mori silk fibroin studied with two-dimensional spin-diffusion NMR under off magic angle spinning and rotational echo double resonance11Edited by M. F. Summers. Journal of Molecular Biology, 2001, 306, 291-305.	2.0	230
5	Heterogeneous Structure of Silk Fibers fromBombyxmoriResolved by13C Solid-State NMR Spectroscopy. Journal of the American Chemical Society, 2002, 124, 8794-8795.	6.6	215
6	Solvent- and mechanical-treatment-induced conformational transition of silk fibroins studies by high-resolution solid-state carbon-13 NMR spectroscopy. Macromolecules, 1990, 23, 88-94.	2.2	201
7	Long-term patency of small-diameter vascular graft made from fibroin, a silk-based biodegradable material. Journal of Vascular Surgery, 2010, 51, 155-164.	0.6	197
8	High-resolution carbon-13 NMR study of silk fibroin in the solid state by the cross-polarization-magic angle spinning method. Conformational characterization of silk I and silk II type forms of Bombyx mori fibroin by the conformation-dependent carbon-13 chemical shifts. Macromolecules, 1984, 17, 1405-1412.	2.2	192
9	Solid-state NMR determination of the secondary structure of Samia cynthia ricini silk. Nature, 2000, 405, 1077-1079.	13.7	186
10	Analysis of the Structure of Bombyx mori Silk Fibroin by NMR. Macromolecules, 2015, 48, 2345-2357.	2.2	166
11	C alpha and C beta carbon-13 chemical shifts in proteins from an empirical database. Journal of Biomolecular NMR, 1999, 13, 199-211.	1.6	160
12	Artificial Spinning and Characterization of Silk Fiber fromBombyxmoriSilk Fibroin in Hexafluoroacetone Hydrate. Macromolecules, 2002, 35, 6-9.	2.2	158
13	Carbon-13 NMR spectral assignment of five polyolefins determined from the chemical shift calculation and the polymerization mechanism. Macromolecules, 1991, 24, 2334-2340.	2.2	155
14	Some Observations on the Structure and Function of the Spinning Apparatus in the SilkwormBombyxmori. Biomacromolecules, 2007, 8, 175-181.	2.6	143
15	Empirical Comparisons of Models for Chemical-Shift Calculation in Proteins. Journal of Magnetic Resonance Series B, 1993, 101, 63-71.	1.6	138
16	Raman spectroscopic characterization ofBombyx mori silk fibroin: Raman spectrum of Silk I. Journal of Raman Spectroscopy, 2001, 32, 103-107.	1.2	134
17	NMR of silk fibroin. Carbon-13 NMR study of the chain dynamics and solution structure of Bombyx mori silk fibroin. Macromolecules, 1984, 17, 1075-1081.	2.2	126
18	Immobilization of glucose oxidase withBombyx mori silk fibroin by only stretching treatment and its application to glucose sensor. Biotechnology and Bioengineering, 1989, 33, 598-603.	1.7	126

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19	Very fast magic angle spinning 1H-14N 2D solid-state NMR: Sub-micro-liter sample data collection in a few minutes. Journal of Magnetic Resonance, 2011, 208, 44-48.	1.2	125
20	Structural characterization and artificial fiber formation ofBombyx mori silk fibroin in hexafluoro-iso-propanol solvent system. Biopolymers, 2003, 69, 253-259.	1.2	124
21	The relationship between amide proton chemical shifts and secondary structure in proteins. Journal of Biomolecular NMR, 1995, 6, 227-36.	1.6	119
22	13C CP/MAS NMR study on structural heterogeneity in Bombyx mori silk fiber and their generation by stretching. Protein Science, 2009, 11, 2706-2713.	3.1	106
23	Comparative study of silk fibroin porous scaffolds derived from salt/water and sucrose/hexafluoroisopropanol in cartilage formation. Journal of Bioscience and Bioengineering, 2009, 108, 68-75.	1.1	105
24	Improving Cell-Adhesive Properties of Recombinant Bombyx mori Silk by Incorporation of Collagen or Fibronectin Derived Peptides Produced by Transgenic Silkworms. Biomacromolecules, 2007, 8, 3487-3492.	2.6	104
25	Structure ofBombyx moriSilk Fibroin Based on Solid-State NMR Orientational Constraints and Fiber Diffraction Unit Cell Parameters. Journal of the American Chemical Society, 1998, 120, 1300-1308.	6.6	99
26	Comparative Structure Analysis of Tyrosine and Valine Residues in Unprocessed Silk Fibroin (Silk I) and in the Processed Silk Fiber (Silk II) from Bombyx mori Using Solid-State 13C,15N, and 2H NMR. Biochemistry, 2002, 41, 4415-4424.	1.2	98
27	Structural analysis of silk with 13C NMR chemical shift contour plots. International Journal of Biological Macromolecules, 1999, 24, 167-171.	3.6	97
28	Immobilization of biocatalysts with bombyx mori silk fibroin by several kinds of physical treatment and its application to glucose sensors. Biosensors, 1989, 4, 361-372.	2.0	95
29	The structure of Bombyx mori silk fibroin membrane swollen by water studied with ESR, 13C-NMR, and FT-IR spectroscopies. Journal of Applied Polymer Science, 1990, 40, 1745-1756.	1.3	92
30	Preparation and characterization of silk fibroin powder and its application to enzyme immobilization. Journal of Applied Polymer Science, 1990, 40, 127-134.	1.3	91
31	NMR study of silk I structure ofBombyx mori silk fibroin with15N- and13C-NMR chemical shift contour plots. , 1997, 41, 193-203.		91
32	Binding of amyloid Î²-peptide to ganglioside micelles is dependent on histidine-13. Biochemical Journal, 2006, 397, 483-490.	1.7	90
33	Refinement of Repeated Î²-turn Structure for Silk I Conformation ofBombyx moriSilk Fibroin Using13C Solid-State NMR and X-ray Diffraction Methods. Macromolecules, 2005, 38, 7397-7403.	2.2	89
34	Silk structure studied with nuclear magnetic resonance. Progress in Nuclear Magnetic Resonance Spectroscopy, 2013, 69, 23-68.	3.9	88
35	A method for the calculation of protein Î±-CH chemical shifts. Journal of Biomolecular NMR, 1992, 2, 83-98.	1.6	87
36	Structure ofBombyx mori silk fibroin before spinning in solid state studied with wide angle x-ray scattering and13C cross-polarization/magic angle spinning NMR. Biopolymers, 2001, 58, 521-525.	1.2	86

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37	Use of silk fibroin for enzyme membrane. Journal of Biotechnology, 1987, 5, 199-207.	1.9	85
38	Structure of Alanine and Glycine Residues ofSamiacynthiariciniSilk Fibers Studied with Solid-State15N and13C NMR. Macromolecules, 1999, 32, 4940-4946.	2.2	84
39	Colored Fluorescent Silk Made by Transgenic Silkworms. Advanced Functional Materials, 2013, 23, 5232-5239.	7.8	82
40	A method for studying the structure of uniaxially aligned biopolymers using solid state15N-nmr: Application toBombyx mori silk fibroin fibers. Biopolymers, 1993, 33, 847-861.	1.2	80
41	Characterization by Raman Microspectroscopy of the Strain-Induced Conformational Transition in Fibroin Fibers from the SilkwormSamiacynthiaricini. Biomacromolecules, 2006, 7, 2512-2521.	2.6	79
42	Hydrolysis and condensation mechanisms of a silane coupling agent studied by 13C and 29Si NMR. Journal of Applied Polymer Science, 1987, 34, 1619-1630.	1.3	78
43	Porous membrane of Bombyx mori silk fibroin: structure characterization, physical properties and application to glucose oxidase immobilization. Journal of Membrane Science, 1991, 59, 39-52.	4.1	76
44	Preparation of double-raschel knitted silk vascular grafts and evaluation of short-term function in a rat abdominal aorta. Journal of Artificial Organs, 2011, 14, 89-99.	0.4	76
45	Primary and secondary structures of synthetic polymer systems as studied by 13C N M R spectroscopy. Progress in Nuclear Magnetic Resonance Spectroscopy, 1990, 22, 349-400.	3.9	75
46	Heptad configurational analysis of 13C n.m.r. spectra in highly isotactic polypropylene. Polymer, 1988, 29, 138-143.	1.8	74
47	Structure of Silk studied with NMR. Progress in Nuclear Magnetic Resonance Spectroscopy, 2001, 39, 301-352.	3.9	73
48	Structure Determination of a Peptide Model of the Repeated Helical Domain inSamiacynthiariciniSilk Fibroin before Spinning by a Combination of Advanced Solid-State NMR Methods. Journal of the American Chemical Society, 2003, 125, 7230-7237.	6.6	73
49	Smallâ€Diameter Silk Vascular Grafts (3 mm Diameter) with a Doubleâ€Raschel Knitted Silk Tube Coated with Silk Fibroin Sponge. Advanced Healthcare Materials, 2013, 2, 361-368.	3.9	73
50	Structural role of tyrosine in Bombyx mori silk fibroin, studied by solid-state NMR and molecular mechanics on a model peptide prepared as silk I and II. Magnetic Resonance in Chemistry, 2004, 42, 258-266.	1.1	70
51	Possible Implications of Serine and Tyrosine Residues and Intermolecular Interactions on the Appearance of Silk I Structure ofBombyxmoriSilk Fibroin-Derived Synthetic Peptides:Â High-Resolution13C Cross-Polarization/Magic-Angle Spinning NMR Study. Biomacromolecules, 2005, 6, 468-474.	2.6	70
52	NMR of silk fibroin. 3. Assignment of carbonyl carbon resonances and their dependence on sequence and conformation in Bombyx mori silk fibroin using selective isotopic labeling. Macromolecules, 1984, 17, 2421-2426.	2.2	68
53	NMR of silk fibroin. 4. Temperature- and urea-induced helix-coil transitions of the -(Ala)n- sequence in Philosamia cynthia ricini silk fibroin protein monitored by carbon-13 NMR spectroscopy. Macromolecules, 1985, 18, 2614-2619.	2.2	66
54	Elucidating silk structure using solid-state NMR. Soft Matter, 2013, 9, 11440.	1.2	65

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55	Porous Silk Fibroin Film as a Transparent Carrier for Cultivated Corneal Epithelial Sheets. Journal of Biomaterials Science, Polymer Edition, 2011, 22, 2261-2276.	1.9	63
56	Conformational characterization of silk fibroin in intact Bombyx mori and Pilosamia cynthia ricini silkworms by carbon-13 NMR spectroscopy. Macromolecules, 1983, 16, 1024-1026.	2.2	62
57	Structural Analysis of Alanine Tripeptide with Antiparallel and Parallel Î²-Sheet Structures in Relation to the Analysis of Mixed Î²-Sheet Structures inSamiacynthiariciniSilk Protein Fiber Using Solid-State NMR Spectroscopy. Journal of the American Chemical Society, 2006, 128, 6231-6238.	6.6	62
58	Development of Small-Diameter Vascular Grafts Based on Silk Fibroin Fibers from Bombyx mori for Vascular Regeneration. Journal of Biomaterials Science, Polymer Edition, 2011, 22, 195-206.	1.9	62
59	Structural change of keratin protein in human hair by permanent waving treatment1This work was presented at the 44th Annual Meeting of the Society of Polymer Science, Japan; 1996, Nagoya, Japan.1. Polymer, 1998, 39, 3835-3840.	1.8	60
60	Investigation of Structural Transition of Regenerated Silk Fibroin Aqueous Solution by Rheo-NMR Spectroscopy. Journal of the American Chemical Society, 2008, 130, 4182-4186.	6.6	60
61	Immobilization of peroxidase with a Bombyx mori silk fibroin membrane and its application to biophotosensors. Journal of Biotechnology, 1989, 10, 113-119.	1.9	59
62	The role of irregular unit, GAAS, on the secondary structure ofBombyx morisilk fibroin studied with13C CP/MAS NMR and wide-angle X-ray scattering. Protein Science, 2002, 11, 1873-1877.	3.1	59
63	NMR of silk fibroin. 8. Carbon-13 NMR analysis of the conformation and the conformational transition of Philosamia cynthia ricini silk fibroin protein on the basis of Bixon-Scheraga-Lifson theory. Macromolecules, 1988, 21, 644-648.	2.2	57
64	Production and characterization of a silk-like hybrid protein, based on the polyalanine region of Samia cynthia ricini silk fibroin and a cell adhesive region derived from fibronectin. Biomaterials, 2004, 25, 617-624.	5.7	57
65	Structures ofBombyxmoriandSamiacynthiariciniSilk Fibroins Studied with Solid-State NMR. Biomacromolecules, 2004, 5, 680-688.	2.6	57
66	Dynamic features of side chains in tyrosine and serine residues of some polypeptides and fibroins in the solid as studied by high-resolution solid-state carbon-13 NMR spectroscopy. Macromolecules, 1990, 23, 83-88.	2.2	56
67	Interaction of mastoparan with membranes studied by 1 H-NMR spectroscopy in detergent micelles and by solid-state 2 H-NMR and 15 N-NMR spectroscopy in oriented lipid bilayers. FEBS Journal, 2001, 268, 302-309.	0.2	56
68	Determination of the torsion angles of alanine and glycine residues of model compounds of spider silk (AGG)(10) using solid-state NMR methods. Journal of Biomolecular NMR, 2003, 25, 91-103.	1.6	55
69	Mechanical Properties of Regenerated Bombyx mori Silk Fibers and Recombinant Silk Fibers Produced by Transgenic Silkworms. Journal of Biomaterials Science, Polymer Edition, 2010, 21, 395-411.	1.9	55
70	High-Resolution13C CP/MAS NMR Study on Structure and Structural Transition ofAntheraeapernyiSilk Fibroin Containing Poly(l-alanine) and Gly-Rich Regions. Macromolecules, 2002, 35, 2393-2400.	2.2	53
71	Carbon-13 NMR spectral assignments of regioirregular polypropylene determined from two-dimensional INADEQUATE spectra and chemical shift calculations. Macromolecules, 1992, 25, 4876-4881.	2.2	51
72	Molecular Dynamics Simulation of Conformational Change of Poly(Ala-Gly) from Silk I to Silk Î™Î™ in Relation to Fiber Formation Mechanism ofBombyxmoriSilk Fibroin. Macromolecules, 2003, 36, 6766-6772.	2.2	51

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73	NMR Study of the Structures of Repeated Sequences, GAGXGA (X = S, Y, V), in Bombyx mori Liquid Silk. Biomacromolecules, 2014, 15, 104-112.	2.6	51
74	Preparation and characterization of multilayered hydroxyapatite/silk fibroin film. Journal of Bioscience and Bioengineering, 2007, 103, 514-520.	1.1	49
75	Role of Hydroxyl Side Chains inBombyxmoriSilk Sericin in Stabilizing Its Solid Structure. Macromolecules, 2007, 40, 1562-1569.	2.2	48
76	Characterization of low-temperatureplasma treated silk fibroin fabrics by ESCA and the use of the fabrics as an enzyme-immobilization support. Biomaterials, 1992, 13, 276-280.	5.7	47
77	Solid-State NMR Analysis of a Peptide (Gly-Pro-Gly-Gly-Ala)6-Gly Derived from a Flagelliform Silk Sequence ofNephilaclavipes. Biomacromolecules, 2006, 7, 1210-1214.	2.6	47
78	Carbon-13 NMR chemical shift of regioirregular polypropylene. Macromolecules, 1987, 20, 616-620.	2.2	46
79	Chain-end structures in polypropylene prepared with .delta.-TiCl3/Et2AlCl catalytic system in the presence of hydrogen. Macromolecules, 1988, 21, 2675-2684.	2.2	46
80	Hydrogen-Bonding Structure of Serine Side Chains inBombyx moriandSamia cynthia riciniSilk Fibroin Determined by Solid-State2H NMR. Macromolecules, 1999, 32, 7166-7171.	2.2	46
81	Distinctive Influence of Two Hexafluoro Solvents on the Structural Stabilization ofBombyxmoriSilk Fibroin Protein and Its Derived Peptides:Â13C NMR and CD Studies. Biomacromolecules, 2006, 7, 18-23.	2.6	46
82	Structure of Silk I (Bombyx mori Silk Fibroin before Spinning) -Type II Î²-Turn, Not Î±-Helix-. Molecules, 2021, 26, 3706.	1.7	46
83	Adsorption behavior of a silane coupling agent onto a colloidal silica surface studied by 29Si NMR spectroscopy. Journal of Colloid and Interface Science, 1989, 129, 113-119.	5.0	45
84	2H-Labeling of Silk Fibroin Fibers and Their Structural Characterization by Solid-State2H NMR. Macromolecules, 1997, 30, 2429-2435.	2.2	44
85	Two Different Packing Arrangements of Antiparallel Polyalanine. Angewandte Chemie - International Edition, 2012, 51, 1212-1215.	7.2	44
86	Advanced Silk Fibroin Biomaterials and Application to Small-Diameter Silk Vascular Grafts. ACS Biomaterials Science and Engineering, 2019, 5, 5561-5577.	2.6	44
87	Activation Energy for Permeation of Phosphonium Cations through Phospholipid Bilayer Membrane. Biochemistry, 1994, 33, 4312-4318.	1.2	43
88	The structure of the melittin tetramer at different temperatures. An NOE-based calculation with chemical shift refinement. FEBS Journal, 1998, 257, 479-487.	0.2	43
89	The Structural Characteristics ofBombyx moriSilk Fibroin before Spinning As Studied with Molecular Dynamics Simulation. Macromolecules, 2002, 35, 8831-8838.	2.2	43
90	Rheological Properties of Native Silk Fibroins from Domestic and Wild Silkworms, and Flow Analysis in Each Spinneret by a Finite Element Method. Biomacromolecules, 2009, 10, 929-935.	2.6	43

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91	Intermolecular Packing in B. mori Silk Fibroin: Multinuclear NMR Study of the Model Peptide (Ala-Gly)₁₅ Defines a Heterogeneous Antiparallel Antipolar Mode of Assembly in the Silk II Form. Macromolecules, 2015, 48, 28-36.	2.2	43
92	NMR of silk fibroin. 9. Sequence and conformation analyses of the silk fibroins from Bombyx mori and Philosamia cynthia ricini by 15N NMR spectroscopy. Macromolecules, 1988, 21, 2038-2041.	2.2	42
93	Native Structure and Degradation Pattern of Silk Sericin Studied by13C NMR Spectroscopy. Macromolecules, 2006, 39, 6-8.	2.2	42
94	Silk fibroinâ€based scaffolds for bone regeneration. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2013, 101B, 295-302.	1.6	42
95	Introduction of VEGF or RGD sequences improves revascularization properties of Bombyx mori silk fibroin produced by transgenic silkworm. Journal of Materials Chemistry B, 2015, 3, 7109-7116.	2.9	42
96	1H pulsed NMR study of bombyx mori silk fibroin: Dynamics of fibroin and of absorbed water. Journal of Polymer Science, Part B: Polymer Physics, 1992, 30, 693-699.	2.4	41
97	Tightly winding structure of sequential model peptide for repeated helical region in Samia cynthia ricini silk fibroin studied with solid-state NMR. Protein Science, 2003, 12, 666-671.	3.1	41
98	Small-diameter vascular grafts of Bombyx mori silk fibroin prepared by a combination of electrospinning and sponge coating. Materials Letters, 2010, 64, 1786-1788.	1.3	40
99	13C NMR analysis of chemical inversion in polypropylene. Die Makromolekulare Chemie, 1977, 178, 791-801.	1.1	39
100	A HIGH RESOLUTION13C NMR STUDY OF SILK FIBROIN IN SOLID STATE BY THE CROSS POLARIZATION-MAGIC ANGLE SPINNING METHOD: CONFORMATIONAL CHARACTERIZATION UTILIZING CONFORMATION-DEPENDENT13C CHEMICAL SHIFTS. Chemistry Letters, 1983, 12, 427-430.	0.7	39
101	The Carbon-13 NMR Chemical Shift of Poly(1-butene) Referring to that of 2,4,6,8,10,12,14,16,18-Nonaethylnonadecane and a Comparison of the Chemical Shifts between Poly(1-butene) and Polypropylene. Polymer Journal, 1984, 16, 717-726.	1.3	39
102	Immobilization of glucose oxidase on nonwoven fabrics with bombyx mori silk fibroin gel. Journal of Applied Polymer Science, 1992, 46, 49-53.	1.3	39
103	Raman study of poly(alanine-glycine)-based peptides containing tyrosine, valine, and serine as model for the semicrystalline domains ofBombyx mori silk fibroin. Biopolymers, 2004, 75, 314-324.	1.2	39
104	The interaction of amyloid AÎ²(1â€“40) with lipid bilayers and ganglioside as studied by 31P solid-state NMR. Chemistry and Physics of Lipids, 2009, 158, 54-60.	1.5	39
105	Nano-mole scale sequential signal assignment by ¹H-detected protein solid-state NMR. Chemical Communications, 2015, 51, 15055-15058.	2.2	39
106	NMR of silk fibroin, 6. Structure of bombyx mori silk fibroin in aqueous solution. Die Makromolekulare Chemie Rapid Communications, 1986, 7, 755-759.	1.1	38
107	Regeneration of the femoral epicondyle on calcium-binding silk scaffolds developed using transgenic silk fibroin produced by transgenic silkworm. Acta Biomaterialia, 2011, 7, 1192-1201.	4.1	38
108	Conformation of Crystalline and Noncrystalline Domains of [3-¹³C]Ala-, [3-¹³C]Ser-, and [3-¹³C]Tyr-Bombyx mori Silk Fibroin in a Hydrated State Studied with ¹³C DD/MAS NMR. Macromolecules, 2015, 48, 8062-8069.	2.2	38

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109	Biological Reaction to Small-Diameter Vascular Grafts Made of Silk Fibroin Implanted in the Abdominal Aortae of Rats. Annals of Vascular Surgery, 2015, 29, 341-352.	0.4	38
110	Triad Sequence Analysis of Poly(ethylene/butylene terephthalate) Copolymer Using1H NMR. Macromolecules, 2002, 35, 4664-4668.	2.2	37
111	Synthesis and Characterization of Chimeric Silkworm Silk. Biomacromolecules, 2003, 4, 815-820.	2.6	37
112	Structural Analysis ofBombyx moriSilk Fibroin Peptides with Formic Acid Treatment Using High-Resolution Solid-State13C NMR Spectroscopy. Biomacromolecules, 2004, 5, 1763-1769.	2.6	37
113	Structural Determination of an Elastin-Mimetic Model Peptide, (Val-Pro-Gly-Val-Gly)6, Studied by13C CP/MAS NMR Chemical Shifts, Two-Dimensional off Magic Angle Spinning Spin-Diffusion NMR, Rotational Echo Double Resonance, and Statistical Distribution of Torsion Angles from Protein Data Bank. Macromolecules, 2005, 38, 6038-6047.	2.2	37
114	Deposition of bone-like apatite on modified silk fibroin films from simulated body fluid. Journal of Applied Polymer Science, 2006, 99, 2822-2830.	1.3	37
115	Silklike materials constructed from sequences of Bombyx mori silk fibroin, fibronectin, and elastin. Journal of Biomedical Materials Research - Part A, 2008, 84A, 353-363.	2.1	37
116	Nanotechnology in Agriculture. ACS Symposium Series, 2016, , 233-242.	0.5	37
117	Silk Fibroin as a Coating Polymer for Sirolimus-Eluting Magnesium Alloy Stents. ACS Applied Bio Materials, 2020, 3, 531-538.	2.3	36
118	Evidence from13C solid-state NMR spectroscopy for a lamella structure in an alanine-glycine copolypeptide: A model for the crystalline domain ofBombyx morisilk fiber. Protein Science, 2005, 14, 2654-2657.	3.1	35
119	Preparation and Properties of Covalently Immobilized Alkaline Phosphatase onBombyx MoriSilk Fibroin Fiber. Polymer-Plastics Technology and Engineering, 1989, 28, 453-469.	1.9	34
120	An ESR study of spin-labeled silk fibroin membranes and spin-labeled glucose oxidase immobilized in silk fibroin membranes. Biotechnology and Bioengineering, 1990, 35, 511-517.	1.7	34
121	Design and synthesis of C-linked fucosides as inhibitors of E-selectin. Bioorganic and Medicinal Chemistry, 1996, 4, 1149-1165.	1.4	34
122	Dynamics of the Tyrosine Side Chain inBombyxmoriandSamiacynthiariciniSilk Fibroin Studied by Solid State2H NMR. Macromolecules, 1999, 32, 8491-8495.	2.2	32
123	Heterogeneous exchange behavior ofSamia cynthia ricinisilk fibroin during helix-coil transition studied with13C NMR. FEBS Letters, 2002, 529, 188-192.	1.3	32
124	Design, Expression and Solid-State NMR Characterization of Silk-Like Materials Constructed from Sequences of Spider Silk, Samia cynthia ricini and Bombyx mori Silk Fibroins. Journal of Biochemistry, 2005, 137, 721-729.	0.9	32
125	Stretching-Induced Conformational Transition of the Crystalline and Noncrystalline Domains of ¹³C-Labeled Bombyx mori Silk Fibroin Monitored by Solid State NMR. Macromolecules, 2015, 48, 5761-5769.	2.2	32
126	Carbon-13 NMR study of the chain dynamics of polypropylene and poly(1-butene) and the stereochemical dependence of the segmental mobility. Macromolecules, 1983, 16, 786-790.	2.2	31

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127	Adhesion of N-Methacryloyl-ï‰-Amino Acid Primers to Collagen Analyzed by 13C NMR. Journal of Dental Research, 2001, 80, 855-859.	2.5	31
128	Design, Expression and Characterization of Collagen-Like Proteins Based on the Cell Adhesive and Crosslinking Sequences Derived from Native Collagens. Journal of Biochemistry, 2004, 136, 643-649.	0.9	31
129	13C Solid-State NMR Study of Structural Heterogeneity in Peptides Containing Both Polyalanine and Repeated GGA Sequences as a Local Structural Model ofNephilaclavipesDragline Silk (Spidroin 1). Macromolecules, 2005, 38, 3356-3363.	2.2	31
130	Determination of Accurate ¹H Positions of (Ala-Gly)n as a Sequential Peptide Model of Bombyx mori Silk Fibroin before Spinning (Silk I). Macromolecules, 2013, 46, 8046-8050.	2.2	31
131	13C and 31P NMR studies on sugar metabolism in Bombyx mori and Philosamia cynthia ricini larvae. Insect Biochemistry, 1988, 18, 531-538.	1.8	30
132	Application of 1H NMR chemical shifts to measure the quality of protein structures. Journal of Molecular Biology, 1995, 247, 541-546.	2.0	30
133	Hydration of Bombyx mori silk cocoon, silk sericin and silk fibroin and their interactions with water as studied by¹³C NMR and²H NMR relaxation. Journal of Materials Chemistry B, 2017, 5, 1624-1632.	2.9	30
134	Structural analysis of uniaxially aligned polymers using solid-state nitrogen-15 NMR. Macromolecules, 1993, 26, 6660-6663.	2.2	29
135	Bond Strength of Resin to Acid-etched Dentin Studied by 13C NMR: Interaction between N-methacryloyl-ï‰-Amino Acid Primer and Dentinal Collagen. Journal of Dental Research, 2000, 79, 806-811.	2.5	29
136	Pressure-dependent changes in the structure of the melittin alpha-helix determined by NMR. Journal of Biomolecular NMR, 2001, 19, 115-124.	1.6	29
137	Flow analysis of aqueous solution of silk fibroin in the spinneret of Bombyx mori silkworm by combination of viscosity measurement and finite element method calculation. Polymer, 2008, 49, 952-956.	1.8	29
138	Recombinant silk fibroin incorporated cell-adhesive sequences produced by transgenic silkworm as a possible candidate for use in vascular graft. Journal of Materials Chemistry B, 2014, 2, 7375-7383.	2.9	29
139	Characterization of water in hydrated Bombyx mori silk fibroin fiber and films by 2H NMR relaxation and 13C solid state NMR. Acta Biomaterialia, 2017, 50, 322-333.	4.1	29
140	Structure of the spinning apparatus of a wild silkworm Samia cynthia ricini and molecular dynamics calculation on the structural change of the silk fibroin. Polymer, 2007, 48, 2064-2070.	1.8	28
141	Preparation and characterization of regenerated Bombyx mori silk fibroin fiber containing recombinant cellâ€adhesive proteins; Nonwoven fiber and monofilament. Journal of Applied Polymer Science, 2008, 109, 2956-2963.	1.3	28
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