

Toshimichi Fujiwara

List of Publications by Year in descending order

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102
papers

3,081
citations

218677

26
h-index

189892

50
g-index

107
all docs

107
docs citations

107
times ranked

3989
citing authors

#	ARTICLE	IF	CITATIONS
1	Cryogenic signal amplification combined with helium-temperature MAS DNP toward ultimate NMR sensitivity at high field conditions. <i>Journal of Magnetic Resonance</i> , 2022, 335, 107139.	2.1	7
2	A hybrid strategy combining solution NMR spectroscopy and isothermal titration calorimetry to characterize protein-nanodisc interaction. <i>Analytical Biochemistry</i> , 2022, 639, 114521.	2.4	5
3	Biochemical propensity mapping for structural and functional anatomy of importin β IBB domain. <i>Genes To Cells</i> , 2022, 27, 173-191.	1.2	4
4	Evolution of β -synuclein conformation ensemble toward amyloid fibril via liquid-liquid phase separation (LLPS) as investigated by dynamic nuclear polarization-enhanced solid-state MAS NMR. <i>Neurochemistry International</i> , 2022, 157, 105345.	3.8	10
5	Cooperative regulation of PBI1 and MAPKs controls WRKY45 transcription factor in rice immunity. <i>Nature Communications</i> , 2022, 13, 2397.	12.8	20
6	Sensitivity enhancement by sequential data acquisition for ^{13}C -direct detection NMR. <i>Journal of Magnetic Resonance</i> , 2021, 322, 106878.	2.1	4
7	Efficiency analysis of helium-cooled MAS DNP: case studies of surface-modified nanoparticles and homogeneous small-molecule solutions. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 4919-4926.	2.8	9
8	Temperature- and composition-dependent conformational transitions of amphipathic peptide- α -phospholipid nanodiscs. <i>Journal of Colloid and Interface Science</i> , 2021, 588, 522-530.	9.4	16
9	Polyphenol- α -solubility alters amyloid fibril formation of β -synuclein. <i>Protein Science</i> , 2021, 30, 1701-1713.	7.6	14
10	Structural dynamics of the chromo-shadow domain and chromodomain of HP1 bound to histone H3K9 methylated peptide, as measured by site-directed spin-labeling EPR spectroscopy. <i>Biochemical and Biophysical Research Communications</i> , 2021, 567, 42-48.	2.1	2
11	Sequence requirements of the FFAT-like motif for specific binding to VAP α are revealed by NMR. <i>FEBS Letters</i> , 2021, 595, 2248-2256.	2.8	3
12	Peptide Cyclization Mediated by Metal-Free S α -Arylation: S α -Protected Cysteine Sulfoxide as an Umpolung of the Cysteine Nucleophile. <i>Chemistry - A European Journal</i> , 2021, 27, 14092-14099.	3.3	6
13	The Route from the Folded to the Amyloid State: Exploring the Potential Energy Surface of a Drug-Like Miniprotein. <i>Chemistry - A European Journal</i> , 2020, 26, 1968-1978.	3.3	14
14	Robust folding of a de novo designed ideal protein even with most of the core mutated to valine. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 31149-31156.	7.1	23
15	Surface-Only Spectroscopy for Diffusion-Limited Systems Using Ultra-Low-Temperature DNP MAS NMR at 16.4 T. <i>Journal of Physical Chemistry C</i> , 2020, 124, 18609-18614.	3.1	5
16	Gadolinium Complexes as Contrast Agent for Cellular NMR Spectroscopy. <i>International Journal of Molecular Sciences</i> , 2020, 21, 4042.	4.1	11
17	Structural analysis of cross-linked poly(vinyl alcohol) using high-field DNP-NMR. <i>RSC Advances</i> , 2020, 10, 8039-8043.	3.6	7
18	In-cell NMR as a sensitive tool to monitor physiological condition of <i>Escherichia coli</i> . <i>Scientific Reports</i> , 2020, 10, 2466.	3.3	9

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19	Diverse Structural Conversion and Aggregation Pathways of Alzheimer's Amyloid- β (1-40). ACS Nano, 2019, 13, 8766-8783.	14.6	33
20	Absolute ^1H polarization measurement with a spin-correlated component of magnetization by hyperpolarized MAS-DNP solid-state NMR. Solid State Nuclear Magnetic Resonance, 2019, 99, 20-26.	2.3	9
21	Protein Data Bank: the single global archive for 3D macromolecular structure data. Nucleic Acids Research, 2019, 47, D520-D528.	14.5	671
22	Direct assignment of ^{13}C solid-state NMR signals of TfoF1 ATP synthase subunit c-ring in lipid membranes and its implication for the ring structure. Journal of Biomolecular NMR, 2018, 70, 53-65.	2.8	7
23	New tools and functions in data-out activities at Protein Data Bank Japan (PDBj). Protein Science, 2018, 27, 95-102.	7.6	90
24	Advances in High-Field DNP Methods. , 2018, , 91-134.		3
25	Veratridine binding to a transmembrane helix of sodium channel Nav1.4 determined by solid-state NMR. Bioorganic and Medicinal Chemistry, 2018, 26, 5644-5653.	3.0	2
26	Phosphoinositide binding by the PH domain in ceramide transfer protein (CERT) is inhibited by hyperphosphorylation of an adjacent serine-repeat motif. Journal of Biological Chemistry, 2018, 293, 11206-11217.	3.4	21
27	Transient antibody-antigen interactions mediate the strain-specific recognition of a conserved malaria epitope. Communications Biology, 2018, 1, 58.	4.4	6
28	Noise peak filtering in multi-dimensional NMR spectra using convolutional neural networks. Bioinformatics, 2018, 34, 4300-4301.	4.1	22
29	Current NMR Techniques for Structure-Based Drug Discovery. Molecules, 2018, 23, 148.	3.8	92
30	A novel chitin-binding mode of the chitin-binding domain of chitinase A1 from <i>Bacillus circulans</i> WL-12 revealed by solid-state NMR. FEBS Letters, 2018, 592, 3173-3182.	2.8	11
31	Modern Technologies of Solution Nuclear Magnetic Resonance Spectroscopy for Three-dimensional Structure Determination of Proteins Open Avenues for Life Scientists. Computational and Structural Biotechnology Journal, 2017, 15, 328-339.	4.1	57
32	Cold-Shock Expression System in E. coli for Protein NMR Studies. Methods in Molecular Biology, 2017, 1586, 345-357.	0.9	3
33	Mechanistic and structural basis of bioengineered bovine Cathelicidin-5 with optimized therapeutic activity. Scientific Reports, 2017, 7, 44781.	3.3	10
34	Protein ^{19}F -labeling using transglutaminase for the NMR study of intermolecular interactions. Journal of Biomolecular NMR, 2017, 68, 271-279.	2.8	14
35	Nanodisc-to-Nanofiber Transition of Noncovalent Peptide-Phospholipid Assemblies. ACS Omega, 2017, 2, 2935-2944.	3.5	5
36	Conformational states of HAMP domains interacting with sensory rhodopsin membrane systems: an integrated all-atom and coarse-grained molecular dynamics simulation approach. Molecular BioSystems, 2017, 13, 193-207.	2.9	5

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37	Membrane Mediated Antimicrobial and Antitumor Activity of Cathelicidin 6: Structural Insights from Molecular Dynamics Simulation on Multi-Microsecond Scale. PLoS ONE, 2016, 11, e0158702.	2.5	14
38	Plant-specific DUF1110 protein from <i>Oryza sativa</i> : expression, purification and crystallization. Acta Crystallographica Section F, Structural Biology Communications, 2016, 72, 480-484.	0.8	6
39	Further Characterization of 394-GHz Gyrotron FU CW GII with Additional PID Control System for 600-MHz DNP-SSNMR Spectroscopy. Journal of Infrared, Millimeter, and Terahertz Waves, 2016, 37, 825-836.	2.2	9
40	Solution NMR structure and inhibitory effect against amyloid- β^2 fibrillation of Humanin containing a d-isomerized serine residue. Biochemical and Biophysical Research Communications, 2016, 477, 647-653.	2.1	14
41	Structure determination of uniformly ^{13}C , ^{15}N labeled protein using qualitative distance restraints from MAS solid-state ^{13}C -NMR observed paramagnetic relaxation enhancement. Journal of Biomolecular NMR, 2016, 64, 87-101.	2.8	25
42	Publication of nuclear magnetic resonance experimental data with semantic web technology and the application thereof to biomedical research of proteins. Journal of Biomedical Semantics, 2016, 7, 16.	1.6	9
43	Advanced instrumentation for DNP-enhanced MAS NMR for higher magnetic fields and lower temperatures. Journal of Magnetic Resonance, 2016, 264, 107-115.	2.1	64
44	Utilization of paramagnetic relaxation enhancements for high-resolution NMR structure determination of a soluble loop-rich protein with sparse NOE distance restraints. Journal of Biomolecular NMR, 2015, 61, 55-64.	2.8	16
45	Closed-cycle cold helium magic-angle spinning for sensitivity-enhanced multi-dimensional solid-state NMR. Journal of Magnetic Resonance, 2015, 259, 76-81.	2.1	38
46	^1H , ^{15}N and ^{13}C resonance assignments of the conserved region in the middle domain of <i>S. pombe</i> Sin1 protein. Biomolecular NMR Assignments, 2015, 9, 89-92.	0.8	6
47	Corrugated transmission line systems for 395 GHz/600 MHz and 460 GHz/700 MHz DNP-NMR spectroscopy. , 2014, , .		1
48	Active-Site Structure of the Thermophilic Foc-Subunit Ring in Membranes Elucidated by Solid-State NMR. Biophysical Journal, 2014, 106, 390-398.	0.5	10
49	Development of second harmonic gyrotrons, Gyrotron FU CW GII and Gyrotron FU CW GIII, equipped with internal mode converters. Journal of Infrared, Millimeter, and Terahertz Waves, 2014, 35, 169-178.	2.2	24
50	Latest approaches for efficient protein production in drug discovery. Expert Opinion on Drug Discovery, 2014, 9, 1189-1204.	5.0	24
51	Characteristics of the mode converter of Gyrotron FU CW GII radiating Gaussian beams in both the fundamental and second harmonic frequency bands. Journal of Infrared, Millimeter, and Terahertz Waves, 2014, 35, 517-524.	2.2	19
52	Broadband Continuously Frequency Tunable Gyrotron for 600 MHz DNP-NMR Spectroscopy. Plasma and Fusion Research, 2014, 9, 1206058-1206058.	0.7	18
53	Secondary structural analysis of proteins based on ^{13}C chemical shift assignments in unresolved solid-state NMR spectra enhanced by fragmented structure database. Journal of Biomolecular NMR, 2013, 55, 189-200.	2.8	8
54	Utilization of lysine ^{13}C -methylation NMR for protein-protein interaction studies. Journal of Biomolecular NMR, 2013, 55, 19-31.	2.8	17

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55	An automated system designed for large scale NMR data deposition and annotation: application to over 600 assigned chemical shift data entries to the BioMagResBank from the Riken Structural Genomics/Proteomics Initiative internal database. <i>Journal of Biomolecular NMR</i> , 2012, 53, 311-320.	2.8	26
56	Purification, characterization and reconstitution into membranes of the oligomeric c-subunit ring of thermophilic FoF1-ATP synthase expressed in <i>Escherichia coli</i> . <i>Protein Expression and Purification</i> , 2012, 82, 396-401.	1.3	10
57	Helium-cooling and -spinning dynamic nuclear polarization for sensitivity-enhanced solid-state NMR at 14T and 30K. <i>Journal of Magnetic Resonance</i> , 2012, 225, 1-9.	2.1	72
58	In support of the BMRB. <i>Nature Structural and Molecular Biology</i> , 2012, 19, 854-860.	8.2	6
59	Application of Continuously Frequency-Tunable 0.4 THz Gyrotron to Dynamic Nuclear Polarization for 600MHz Solid-State NMR. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2012, 33, 745-755.	2.2	38
60	Development of a Compact sub-THz Gyrotron FU CW CI for Application to High Power THz Technologies. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2012, 33, 724-744.	2.2	19
61	Combined Use of Replica-Exchange Molecular Dynamics and Magic-Angle-Spinning Solid-State NMR Spectral Simulations for Determining the Structure and Orientation of Membrane-Bound Peptide. <i>Journal of Physical Chemistry B</i> , 2011, 115, 9327-9336.	2.6	8
62	Boosting Protein Dynamics Studies Using Quantitative Nonuniform Sampling NMR Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2011, 115, 13740-13745.	2.6	30
63	Structure analysis of membrane-reconstituted subunit c-ring of <i>E. coli</i> H ⁺ -ATP synthase by solid-state NMR. <i>Journal of Biomolecular NMR</i> , 2010, 48, 1-11.	2.8	8
64	Continuously Frequency Tunable High Power Sub-THz Radiation Source Gyrotron FU CW VI for 600MHz DNP-NMR Spectroscopy. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2010, 31, 775-790.	2.2	72
65	Atomic structure of the bacteriochlorophyll c assembly in intact chlorosomes from <i>Chlorobium limicola</i> determined by solid-state NMR. <i>Photosynthesis Research</i> , 2010, 104, 221-231.	2.9	10
66	¹ H-detected ¹ Hâ ² ¹ H correlation spectroscopy of a stereo-array isotope labeled amino acid under fast magic-angle spinning. <i>Journal of Magnetic Resonance</i> , 2010, 203, 253-256.	2.1	8
67	Dynamic nuclear polarization experiments at 14.1 T for solid-state NMR. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 5799.	2.8	68
68	Fluid Mechanical Matching of H ⁺ -ATP Synthase Subunit c-Ring with Lipid Membranes Revealed by ² H Solid-State NMR. <i>Biophysical Journal</i> , 2008, 94, 4339-4347.	0.5	16
69	A magic-angle-spinning NMR method for H1â ² H1 distance measurement using coherent polarization transfer in ¹³ C-labeled organic solids. <i>Journal of Chemical Physics</i> , 2008, 129, 154504.	3.0	7
70	3P-086 Solid-state NMR measurement of H ⁺ -ATP synthase subunit c-ring reconstituted into lipid bilayers(The 46th Annual Meeting of the Biophysical Society of Japan). <i>Seibutsu Butsuri</i> , 2008, 48, S140.	0.1	0
71	Structure of the light-harvesting bacteriochlorophyll assembly in chlorosomes from <i>Chlorobium limicola</i> determined by solid-state NMR. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 790-795.	7.1	103
72	Structural analysis of pituitary adenylate cyclase-activating polypeptides bound to phospholipid membranes by magic angle spinning solid-state NMR. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2007, 1768, 3001-3011.	2.6	9

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73	Spectral fitting for signal assignment and structural analysis of uniformly ^{13}C -labeled solid proteins by simulated annealing based on chemical shifts and spin dynamics. <i>Journal of Biomolecular NMR</i> , 2007, 38, 325-339.	2.8	7
74	Phospholipid-Dependent Regulation of Cytochrome c_3 -Mediated Electron Transport across Membranes. <i>Biophysical Journal</i> , 2006, 90, 506-513.	0.5	4
75	Structure of Tightly Membrane-Bound Mastoparan-X, a G-Protein-Activating Peptide, Determined by Solid-State NMR. <i>Biophysical Journal</i> , 2006, 91, 1368-1379.	0.5	74
76	Detection of Peptide-Phospholipid Interaction Sites in Bilayer Membranes by ^{13}C NMR Spectroscopy: Observation of $^2\text{H}/^31\text{P}$ -Selective ^1H -Depolarization under Magic-Angle Spinning. <i>Journal of the American Chemical Society</i> , 2006, 128, 10654-10655.	13.7	18
77	Signal assignment and secondary structure analysis of a uniformly [^{13}C , ^{15}N]-labeled membrane protein, H^+ -ATP synthase subunit c , by magic-angle spinning solid-state NMR. <i>Journal of Biomolecular NMR</i> , 2006, 36, 279-293.	2.8	26
78	3D structure of amyloid protofilaments of beta2-microglobulin fragment probed by solid-state NMR. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 18119-18124.	7.1	224
79	How Far Can the Sensitivity of NMR Be Increased?. <i>Annual Reports on NMR Spectroscopy</i> , 2006, 58, 155-175.	1.5	44
80	Signal assignments and chemical-shift structural analysis of uniformly ^{13}C , ^{15}N -labeled peptide, mastoparan-X, by multidimensional solid-state NMR under magic-angle spinning. <i>Journal of Biomolecular NMR</i> , 2004, 28, 311-325.	2.8	38
81	Precision ^1H - ^1H distance measurement via ^{13}C NMR signals: utilization of ^1H - ^1H double-quantum dipolar interactions recoupled under magic angle spinning conditions. <i>Magnetic Resonance in Chemistry</i> , 2004, 42, 291-300.	1.9	14
82	Characteristics of Water Adsorbed on TiO_2 Photocatalytic Systems with Increasing Temperature as Studied by Solid-State ^1H NMR Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2004, 108, 9121-9125.	2.6	94
83	Phase-modulated heteronuclear decoupling in NMR of solids. <i>Journal of Magnetic Resonance</i> , 2003, 162, 46-53.	2.1	27
84	Band-selective recoupling of homonuclear double-quantum dipolar interaction with a generalized composite O^Δ pulse: application to aliphatic region-selective magnetization transfer in solids. <i>Journal of Magnetic Resonance</i> , 2003, 162, 54-66.	2.1	18
85	Photocatalytic Reaction Sites at the TiO_2 Surface as Studied by Solid-State ^1H NMR Spectroscopy. <i>Langmuir</i> , 2003, 19, 1935-1937.	3.5	39
86	Photoinduced Changes of Adsorbed Water on a TiO_2 Photocatalytic Film As Studied by ^1H NMR Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2003, 107, 12042-12044.	2.6	101
87	Photoinduced Changes of Surface and Adsorbed Water in TiO_2 Photocatalytic Systems as Studied by Solid State ^1H -NMR Spectroscopy. <i>Chemistry Letters</i> , 2002, 31, 420-421.	1.3	21
88	Designing Analogues of Mini Atrial Natriuretic Peptide Based on Structural Analysis by NMR and Restrained Molecular Dynamics. <i>Journal of Medicinal Chemistry</i> , 2002, 45, 881-887.	6.4	4
89	Redox-coupled Conformational Alternations in Cytochrome c_3 from <i>D. vulgaris</i> Miyazaki F on the Basis of its Reduced Solution Structure. <i>Journal of Molecular Biology</i> , 2002, 319, 767-778.	4.2	36
90	Compound Radiofrequency-Driven Recoupling Pulse Sequences for Efficient Magnetization Transfer by Homonuclear Dipolar Interaction under Magic-Angle Spinning Conditions. <i>Journal of Magnetic Resonance</i> , 2000, 145, 73-83.	2.1	13

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91	Molecular mobility of protein in lyophilized formulations linked to the molecular mobility of polymer excipients, as determined by high resolution ^{13}C solid-state NMR. <i>Pharmaceutical Research</i> , 1999, 16, 1621-1625.	3.5	34
92	Osmotic Stability of Muramyl Dipeptide-Bearing Liposomes and Molecular Miscibility in Their Membranes. <i>Bulletin of the Chemical Society of Japan</i> , 1999, 72, 541-548.	3.2	1
93	The interactions of ferric and ferrous cytochrome c with cardiolipin in phospholipid membranes studied by solid-state ^2H and ^{31}P NMR. <i>Journal of Molecular Structure</i> , 1998, 441, 183-188.	3.6	10
94	Multidimensional solid-state nuclear magnetic resonance for determining the dihedral angle from the correlation of ^{13}C - ^1H and ^{13}C - ^{13}C dipolar interactions under magic-angle spinning conditions. <i>Journal of Chemical Physics</i> , 1998, 109, 2380-2393.	3.0	12
95	Multidimensional Solid-State Nuclear Magnetic Resonance for Correlating Anisotropic Interactions under Magic-Angle Spinning Conditions. <i>Journal of Magnetic Resonance</i> , 1997, 124, 147-153.	2.1	34
96	Microdomain formation in phosphatidylethanolamine bilayers detected by ^2H -NMR. <i>Chemistry and Physics of Lipids</i> , 1995, 76, 55-62.	3.2	0
97	Modulation of the specific interaction of cardiolipin with cytochrome c by zwitterionic phospholipids in binary mixed bilayers; a ^2H and ^{31}P NMR study. <i>Journal of Molecular Structure</i> , 1995, 355, 47-53.	3.6	9
98	^{13}C - ^{13}C and ^{13}C - ^{15}N Dipolar Correlation NMR of Uniformly Labeled Organic Solids for the Complete Assignment of Their ^{13}C and ^{15}N Signals: An Application to Adenosine. <i>Journal of the American Chemical Society</i> , 1995, 117, 11351-11352.	13.7	47
99	Oxytocin solution structure changes upon protonation of the N-terminus in dimethyl sulfoxide. <i>Journal of Biomolecular NMR</i> , 1993, 3, 653-73.	2.8	18
100	Behavior of water molecules associated with the phase transitions in the binary system of dioctadecyldimethylammonium chloride and water studied by proton and deuterium magnetic resonances. <i>Journal of Colloid and Interface Science</i> , 1989, 127, 26-34.	9.4	4
101	Conformational study of ^{13}C -enriched fibroin in the solid state, using the cross polarization nuclear magnetic resonance method. <i>Journal of Molecular Biology</i> , 1986, 187, 137-140.	4.2	14
102	The wobbling-cone analysis of internal motion in macromolecules. <i>Journal of Chemical Physics</i> , 1985, 83, 3110-3117.	3.0	29