

J H Prestegard

List of Publications by Year in descending order

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41258

49
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46693

89
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102
all docs

102
docs citations

102
times ranked

3316
citing authors

#	ARTICLE	IF	CITATIONS
1	Nuclear magnetic dipole interactions in field-oriented proteins: information for structure determination in solution.. Proceedings of the National Academy of Sciences of the United States of America, 1995, 92, 9279-9283.	3.3	824
2	Order Matrix Analysis of Residual Dipolar Couplings Using Singular Value Decomposition. Journal of Magnetic Resonance, 1999, 138, 334-342.	1.2	544
3	NMR structures of biomolecules using field oriented media and residual dipolar couplings. Quarterly Reviews of Biophysics, 2000, 33, 371-424.	2.4	400
4	Residual Dipolar Couplings in Structure Determination of Biomolecules. Chemical Reviews, 2004, 104, 3519-3540.	23.0	387
5	Structural and Dynamic Analysis of Residual Dipolar Coupling Data for Proteins. Journal of the American Chemical Society, 2001, 123, 1416-1424.	6.6	277
6	NMR evidence for slow collective motions in cyanometmyoglobin. Nature Structural Biology, 1997, 4, 292-297.	9.7	274
7	Domain Orientation and Dynamics in Multidomain Proteins from Residual Dipolar Couplings. Biochemistry, 1999, 38, 9013-9022.	1.2	244
8	High-resolution proton NMR studies of gangliosides. 1. Use of homonuclear two-dimensional spin-echo J-correlated spectroscopy for determination of residue composition and anomeric configurations. Biochemistry, 1983, 22, 2676-2687.	1.2	239
9	New techniques in structural NMR π anisotropic interactions. Nature Structural Biology, 1998, 5, 517-522.	9.7	221
10	Magnetically orientable phospholipid bilayers containing small amounts of a bile salt analogue, CHAPSO. Biophysical Journal, 1990, 58, 447-460.	0.2	219
11	Improved dilute bicelle solutions for high-resolution NMR of biological macromolecules. , 1998, 12, 447-451.		195
12	Carbon-13 Fourier transform nuclear magnetic resonance. VIII. Role of steric and electric field effects in fatty acid spectra. Journal of Organic Chemistry, 1974, 39, 1698-1705.	1.7	166
13	Refinement of the NMR structures for acyl carrier protein with scalar coupling data. Proteins: Structure, Function and Bioinformatics, 1990, 8, 377-385.	1.5	163
14	Variation of Molecular Alignment as a Means of Resolving Orientational Ambiguities in Protein Structures from Dipolar Couplings. Journal of Magnetic Resonance, 2000, 143, 402-406.	1.2	159
15	A dynamic model for the structure of acyl carrier protein in solution. Biochemistry, 1989, 28, 8792-8797.	1.2	133
16	Magnetic field induced ordering of bile salt/phospholipid micelles: new media for NMR structural investigations. Biochimica Et Biophysica Acta - Biomembranes, 1988, 940, 289-294.	1.4	129
17	Conformational Analysis of a Flexible Oligosaccharide Using Residual Dipolar Couplings. Journal of the American Chemical Society, 2001, 123, 485-492.	6.6	125
18	A Dipolar Coupling Based Strategy for Simultaneous Resonance Assignment and Structure Determination of Protein Backbones. Journal of the American Chemical Society, 2001, 123, 11791-11796.	6.6	119

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19	Three-dimensional structure of acyl carrier protein determined by NMR pseudoenergy and distance geometry calculations. <i>Biochemistry</i> , 1988, 27, 6135-6142.	1.2	109
20	Electric field effects in the carbon-13 nuclear magnetic resonance spectra of unsaturated fatty acids. Potential tool for conformational analysis. <i>Journal of the American Chemical Society</i> , 1973, 95, 6358-6364.	6.6	108
21	Rapid determination of protein folds using residual dipolar couplings. <i>Journal of Molecular Biology</i> , 2000, 304, 447-460.	2.0	106
22	Nuclear Magnetic Resonance Characterization of the Myristoylated, N-Terminal Fragment of ADP-Ribosylation Factor 1 in a Magnetically Oriented Membrane Array. <i>Biochemistry</i> , 1998, 37, 706-716.	1.2	105
23	Partial alignment of biomolecules: an aid to NMR characterization. <i>Current Opinion in Chemical Biology</i> , 2001, 5, 584-590.	2.8	94
24	Residual dipolar coupling derived orientational constraints on ligand geometry in a 53 kDa protein-ligand complex. <i>Journal of Molecular Biology</i> , 1999, 293, 107-115.	2.0	89
25	NMR and computational studies of interactions between remote residues in gangliosides. <i>Biochemistry</i> , 1990, 29, 9843-9855.	1.2	85
26	Three-dimensional structure of acyl carrier protein in solution determined by nuclear magnetic resonance and the combined use of dynamical simulated annealing and distance geometry. <i>FEBS Journal</i> , 1988, 175, 9-15.	0.2	82
27	Proton magnetic resonance studies of the cation-binding properties of nonactin. II. Comparison of the sodium ion, potassium ion, and cesium ion complexes. <i>Journal of the American Chemical Society</i> , 1970, 92, 4440-4446.	6.6	81
28	¹ H and ¹⁵ N Magnetic Resonance Assignments, Secondary Structure, and Tertiary Fold of Escherichia coli DnaJ(1-78). <i>Biochemistry</i> , 1995, 34, 5587-5596.	1.2	75
29	A Quantitative J-Correlation Experiment for the Accurate Measurement of One-Bond Amide ¹⁵ N- ¹ H Couplings in Proteins. <i>Journal of Magnetic Resonance Series B</i> , 1996, 112, 245-252.	1.6	72
30	Nuclear Magnetic Resonance in the Era of Structural Genomics. <i>Biochemistry</i> , 2001, 40, 8677-8685.	1.2	69
31	Nuclear magnetic resonance study of acetic acid permeation of large unilamellar vesicle membranes. <i>Biophysical Journal</i> , 1979, 28, 1-13.	0.2	67
32	High-Resolution Proton NMR Studies of Gangliosides. III. Elucidation of the Structure of Ganglioside GM3 Lactone. <i>Journal of Biochemistry</i> , 1985, 98, 1367-1373.	0.9	66
33	Methyl group dynamics from relaxation of double quantum filtered NMR signals. Application to deoxycholate. <i>Journal of the American Chemical Society</i> , 1987, 109, 3829-3835.	6.6	66
34	Conformational analysis of lecithin in vesicles by ¹³ C NMR. <i>Biochemical and Biophysical Research Communications</i> , 1972, 48, 70-75.	1.0	65
35	Intensity-Based Measurement of Homonuclear Residual Dipolar Couplings from CT-COSY. <i>Journal of the American Chemical Society</i> , 1999, 121, 7712-7713.	6.6	65
36	Molecular Symmetry as an Aid to Geometry Determination in Ligand Protein Complexes. <i>Journal of Magnetic Resonance</i> , 2000, 142, 153-158.	1.2	65

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37	High Resolution Proton NMR Studies of Gangliosides. <i>Journal of Biological Chemistry</i> , 1989, 264, 3478-3483.	1.6	65
38	Determination of Protein Backbone Structures from Residual Dipolar Couplings. <i>Methods in Enzymology</i> , 2005, 394, 175-209.	0.4	64
39	Protein dynamics and distance determination by NOE measurements. <i>FEBS Letters</i> , 1988, 236, 71-76.	1.3	63
40	NMR studies of pH-induced transport of carboxylic acids across phospholipid vesicle membranes. <i>Biochemical and Biophysical Research Communications</i> , 1977, 75, 295-301.	1.0	61
41	Measurement of Amide ^{15}N - ^1H One-Bond Couplings in Proteins Using Accordion Heteronuclear-Shift-Correlation Experiments. <i>Journal of Magnetic Resonance Series B</i> , 1996, 112, 269-274.	1.6	61
42	Electron Spin-Nuclear Spin Cross-Correlation Effects on Multiplet Splittings in Paramagnetic Proteins. <i>Journal of Magnetic Resonance</i> , 1997, 128, 138-143.	1.2	59
43	[4] Oligosaccharide structure by two-dimensional proton nuclear magnetic resonance spectroscopy. <i>Methods in Enzymology</i> , 1987, 138, 38-59.	0.4	58
44	COSY Cross-Peaks from ^1H - ^1H Dipolar Couplings in NMR Spectra of Field Oriented Oligosaccharides. <i>Journal of the American Chemical Society</i> , 1998, 120, 9366-9367.	6.6	58
45	Elucidation of glycolipid structure by proton nuclear magnetic resonance spectroscopy. <i>Chemistry and Physics of Lipids</i> , 1986, 42, 27-48.	1.5	56
46	Structural analysis of a glycolipid head group with one- and two-state NMR pseudoenergy approaches. <i>Journal of the American Chemical Society</i> , 1986, 108, 6778-6784.	6.6	55
47	Application of neural networks to automated assignment of NMR spectra of proteins. <i>Journal of Biomolecular NMR</i> , 1994, 4, 35-46.	1.6	55
48	Amide exchange rates in <i>Escherichia coli</i> acyl carrier protein: Correlation with protein structure and dynamics. <i>Protein Science</i> , 1995, 4, 983-993.	3.1	55
49	Secondary structure of acyl carrier protein as derived from two-dimensional proton NMR spectroscopy. <i>Biochemistry</i> , 1986, 25, 5766-5774.	1.2	49
50	Conformational Differences in Liganded and Unliganded States of Galectin-3. <i>Biochemistry</i> , 2003, 42, 3688-3695.	1.2	49
51	Distance mapping of protein-binding sites using spin-labeled oligosaccharide ligands. <i>Protein Science</i> , 2008, 10, 2393-2400.	3.1	49
52	High-resolution proton NMR studies of gangliosides. 2. Use of two-dimensional nuclear Overhauser effect spectroscopy and sialylation shifts for determination of oligosaccharide sequence and linkage sites. <i>Biochemistry</i> , 1983, 22, 2687-2690.	1.2	48
53	Orientalional behavior of phosphatidylcholine bilayers in the presence of aromatic amphiphiles and a magnetic field. <i>Biophysical Journal</i> , 1993, 64, 1069-1080.	0.2	48
54	Solution Conformations of a Trimannoside from Nuclear Magnetic Resonance and Molecular Dynamics Simulations. <i>Biophysical Journal</i> , 2000, 79, 3313-3329.	0.2	43

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55	Structural Basis for Thermostability in Aporubredoxins from <i>Pyrococcus furiosus</i> and <i>Clostridium pasteurianum</i> . <i>Biochemistry</i> , 2001, 40, 7279-7290.	1.2	41
56	Structure and dynamics of sialic acid at the surface of a magnetically oriented membrane system. <i>Biochemistry</i> , 1993, 32, 3422-3428.	1.2	40
57	Characterization of field-ordered aqueous liquid crystals by NMR diffusion measurements. <i>The Journal of Physical Chemistry</i> , 1993, 97, 9837-9843.	2.9	40
58	Small angle x-ray scattering studies of magnetically oriented lipid bilayers. <i>Biophysical Journal</i> , 1995, 69, 1891-1896.	0.2	40
59	Sign determination of dipolar couplings in field-oriented bicelles by variable angle sample spinning (VASS). <i>Journal of Biomolecular NMR</i> , 1999, 15, 145-150.	1.6	40
60	The influence of C-terminal extension on the structure of the α -Coiledomain in <i>E. coli</i> DnaJ. <i>Protein Science</i> , 1999, 8, 203-214.	3.1	39
61	Rapid classification of a protein fold family using a statistical analysis of dipolar couplings. <i>Bioinformatics</i> , 2003, 19, 1549-1555.	1.8	38
62	NMR: pseudoenergy approach to the solution structure of acyl carrier protein. <i>Biochemistry</i> , 1987, 26, 4652-4660.	1.2	37
63	A molecular mechanics-NMR pseudoenergy approach to the solution conformation of glycolipids. <i>Journal of Computational Chemistry</i> , 1988, 9, 133-147.	1.5	37
64	Structure and dynamics of the sialic acid moiety of GM3-ganglioside at the surface of a magnetically oriented membrane. <i>Biochemistry</i> , 1993, 32, 13405-13413.	1.2	35
65	Overexpression, Purification, and Characterization of <i>Escherichia coli</i> Acyl Carrier Protein and 2 Mutant Proteins. <i>Protein Expression and Purification</i> , 1995, 6, 394-400.	0.6	35
66	Nuclear Magnetic Resonance Studies of the N-Terminal Fragment of Adenosine Diphosphate Ribosylation Factor 1 in Micelles and Bicelles: Influence of N-Myristoylation. <i>Biochemistry</i> , 2000, 39, 3804-3816.	1.2	34
67	Direct measurement of ^1H - ^1H dipolar couplings in proteins: a complement to traditional NOE measurements. <i>Journal of Biomolecular NMR</i> , 2000, 18, 23-31.	1.6	33
68	A Metropolis Monte Carlo Implementation of Bayesian Time-Domain Parameter Estimation: Application to Coupling Constant Estimation from Antiphase Multiplets. <i>Journal of Magnetic Resonance</i> , 1998, 130, 217-232.	1.2	32
69	Domain domain motions in proteins from time-modulated pseudocontact shifts. <i>Journal of Biomolecular NMR</i> , 2007, 39, 53-61.	1.6	30
70	Structural comparison of acyl carrier protein in acylated and sulfhydryl forms by two-dimensional proton NMR spectroscopy. <i>Biochemistry</i> , 1987, 26, 3493-3500.	1.2	27
71	Orientalional analysis of micelle-associated trehalose using an NMR-pseudoenergy approach. <i>Journal of the American Chemical Society</i> , 1989, 111, 3176-3182.	6.6	27
72	[^{19}F]- ^1H heteronuclear nuclear Overhauser effect studies of the acyl chain-binding site of acyl carrier protein. <i>Journal of Biological Chemistry</i> , 1987, 262, 8963-5.	1.6	27

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73	¹³ C NMR Studies of Wheat Germ Agglutinin Interactions with N-Acetylglucosamine at a Magnetically Oriented Bilayer Surface. <i>Biochemistry</i> , 1994, 33, 10137-10148.	1.2	24
74	Nuclear Magnetic Resonance Structural and Ligand Binding Studies of BLBC, a Two-Domain Fragment of Barley Lectin. <i>Biochemistry</i> , 1998, 37, 116-128.	1.2	23
75	Backbone solution structures of proteins using residual dipolar couplings: application to a novel structural genomics target. <i>Journal of Structural and Functional Genomics</i> , 2004, 5, 241-254.	1.2	23
76	Comparison of ¹³ C spin-lattice relaxation times in phospholipid vesicles and multilayers. <i>Biochemical and Biophysical Research Communications</i> , 1974, 58, 549-555.	1.0	22
77	NMR investigations of the structural properties of the nodulation protein, NodF, from <i>Rhizobium leguminosarum</i> and its homology with <i>Escherichia coli</i> acyl carrier protein. <i>FEBS Letters</i> , 1996, 388, 66-72.	1.3	22
78	Backbone solution structures of proteins using residual dipolar couplings: Application to a novel structural genomics target. <i>Journal of Structural and Functional Genomics</i> , 2005, 5, 241-254.	1.2	22
79	Nuclear magnetic resonance determinations of permeation coefficients for maleic acid in phospholipid vesicles. <i>Biophysical Journal</i> , 1979, 26, 575-584.	0.2	21
80	Motional effects on NMR structural data. <i>Biochemical Pharmacology</i> , 1990, 40, 7-13.	2.0	21
81	Kinetics and thermodynamics of thermal denaturation in acyl carrier protein. <i>Protein Science</i> , 1994, 3, 103-108.	3.1	20
82	Performance of a neural-network-based determination of amino acid class and secondary structure from ¹ H- ¹⁵ N NMR data. <i>Journal of Biomolecular NMR</i> , 1997, 10, 45-52.	1.6	20
83	Quantitation of chemical exchange rates using pulsed-field-gradient diffusion measurements. <i>Journal of Biomolecular NMR</i> , 1997, 9, 136-150.	1.6	20
84	Direct NOE simulation from long MD trajectories. <i>Journal of Magnetic Resonance</i> , 2016, 265, 1-9.	1.2	20
85	Structural Monitoring of Oligosaccharides through ¹³ C Enrichment and NMR Observation of Acetyl Groups. <i>Biophysical Journal</i> , 2006, 91, 1952-1959.	0.2	18
86	Torsion angle analysis of glycolipid order at membrane surfaces. <i>Biophysical Journal</i> , 1993, 64, 392-398.	0.2	16
87	Conformation of sulfoquinovosyldiacylglycerol bound to a magnetically oriented membrane system. <i>Biophysical Journal</i> , 1996, 71, 2573-2582.	0.2	14
88	Recent Advances in Structural Analysis of Gangliosides: Primary and Secondary Structures. <i>Advances in Experimental Medicine and Biology</i> , 1984, 174, 87-102.	0.8	13
89	Hydrogen bonding geometry of a protein-bound carbohydrate from water exchange-mediated cross-relaxation. <i>Journal of Biomolecular NMR</i> , 1998, 12, 209-222.	1.6	11
90	Structure determination of a new protein from backbone-centered NMR data and NMR-assisted structure prediction. <i>Proteins: Structure, Function and Bioinformatics</i> , 2006, 65, 480-489.	1.5	7

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91	Synthesis and characterization of a ¹³ C-labeled α -mannosyl glycolipid analog from [¹³ C]glucose. Chemistry and Physics of Lipids, 1993, 66, 155-158.	1.5	4
92	Purification and NMR characterization of acyl carrier protein. Journal of Biological Chemistry, 1987, 262, 3685-9.	1.6	4
93	High Resolution NMR of Biomolecules. Lecture Notes in Physics, 2002, , 426-434.	0.3	3
94	Analysis of Complex Carbohydrate Primary and Secondary Structure via Two-Dimensional Proton Nuclear Magnetic Resonance Spectroscopy. Advances in Experimental Medicine and Biology, 1988, 228, 759-784.	0.8	3
95	Structural Interpretation of NMR Data in the Presence of Motion. , 1991, , 269-277.		2
96	Residual Dipolar Couplings in Structure Determination of Biomolecules. ChemInform, 2004, 35, no.	0.1	0