

Bernhard Brutscher

List of Publications by Year in descending order

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86
papers

5,060
citations

94433

37
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91884

69
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91
all docs

91
docs citations

91
times ranked

4463
citing authors

#	ARTICLE	IF	CITATIONS
1	Disentangling Chromophore States in a Reversibly Switchable Green Fluorescent Protein: Mechanistic Insights from NMR Spectroscopy. <i>Journal of the American Chemical Society</i> , 2021, 143, 7521-7530.	13.7	7
2	Spectral editing of intra- and inter-chain methyl ¹³ C-methyl NOEs in protein complexes. <i>Journal of Biomolecular NMR</i> , 2020, 74, 83-94.	2.8	7
3	Raw nuclear magnetic resonance data of human linker histone H1x, lacking the C-terminal domain (NGH1x), and trajectory data of nanosecond molecular dynamics simulations of GH1x- and NGH1x-chromatosomes. <i>Data in Brief</i> , 2020, 31, 105865.	1.0	0
4	ssNMRLib: a comprehensive library and tool box for acquisition of solid-state nuclear magnetic resonance experiments on Bruker spectrometers. <i>Magnetic Resonance</i> , 2020, 1, 331-345.	1.9	13
5	NMR Reveals Light-Induced Changes in the Dynamics of a Photoswitchable Fluorescent Protein. <i>Biophysical Journal</i> , 2019, 117, 2087-2100.	0.5	10
6	Aromatic SOFAST-HMBC for proteins at natural ¹³ C abundance. <i>Journal of Magnetic Resonance</i> , 2019, 300, 95-102.	2.1	2
7	NMRLib: user-friendly pulse sequence tools for Bruker NMR spectrometers. <i>Journal of Biomolecular NMR</i> , 2019, 73, 199-211.	2.8	46
8	NMR assignments of human linker histone H1x N-terminal domain and globular domain in the presence and absence of perchlorate. <i>Biomolecular NMR Assignments</i> , 2019, 13, 249-254.	0.8	3
9	How Detergent Impacts Membrane Proteins: Atomic-Level Views of Mitochondrial Carriers in Dodecylphosphocholine. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 933-938.	4.6	41
10	BEST and SOFAST experiments for resonance assignment of histidine and tyrosine side chains in ¹³ C/ ¹⁵ N labeled proteins. <i>Journal of Biomolecular NMR</i> , 2018, 72, 115-124.	2.8	8
11	Probing Conformational Exchange Dynamics in a Short-Lived Protein Folding Intermediate by Real-Time Relaxation ² Dispersion NMR. <i>Journal of the American Chemical Society</i> , 2017, 139, 1065-1068.	13.7	21
12	Fragment-Based NMR Study of the Conformational Dynamics in the bHLH Transcription Factor Ascl1. <i>Biophysical Journal</i> , 2017, 112, 1366-1373.	0.5	8
13	RNA binding and chaperone activity of the <i>E. coli</i> cold-shock protein CspA. <i>Nucleic Acids Research</i> , 2017, 45, gkx044.	14.5	56
14	Optimized fast mixing device for real-time NMR applications. <i>Journal of Magnetic Resonance</i> , 2017, 281, 125-129.	2.1	11
15	Longitudinal relaxation properties of ¹ HN and ¹ H ₂ determined by direct-detected ¹³ C NMR experiments to study intrinsically disordered proteins (IDPs). <i>Journal of Magnetic Resonance</i> , 2015, 254, 19-26.	2.1	8
16	NMR Methods for the Study of Intrinsically Disordered Proteins Structure, Dynamics, and Interactions: General Overview and Practical Guidelines. <i>Advances in Experimental Medicine and Biology</i> , 2015, 870, 49-122.	1.6	69
17	The Disordered Region of the HCV Protein NS5A: Conformational Dynamics, SH3 Binding, and Phosphorylation. <i>Biophysical Journal</i> , 2015, 109, 1483-1496.	0.5	19
18	¹³ C-CON assignment strategy for highly flexible intrinsically disordered proteins. <i>Journal of Biomolecular NMR</i> , 2014, 60, 209-218.	2.8	30

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19	Measuring hydrogen exchange in proteins by selective water saturation in ^1H - ^{15}N SOFAST/BEST-type experiments: advantages and limitations. <i>Journal of Biomolecular NMR</i> , 2014, 60, 99-107.	2.8	9
20	The non-structural protein 5A (NS5A) of hepatitis C virus interacts with the SH3 domain of human Bin1 using non-canonical binding sites. <i>European Journal of Medical Research</i> , 2014, 19, .	2.2	0
21	HNCA+, HNCO+, and HNCACB+ experiments: improved performance by simultaneous detection of orthogonal coherence transfer pathways. <i>Journal of Biomolecular NMR</i> , 2014, 60, 1-9.	2.8	19
22	Fast Real-time NMR Methods for Characterizing Short-lived Molecular States. <i>ChemPhysChem</i> , 2013, 14, 3059-3070.	2.1	22
23	Interaction of Nonstructural Protein 5A of the Hepatitis C Virus with Src Homology 3 Domains Using Noncanonical Binding Sites. <i>Biochemistry</i> , 2013, 52, 6160-6168.	2.5	21
24	NMR Spectroscopic Studies of Intrinsically Disordered Proteins at Near-Physiological Conditions. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 11808-11812.	13.8	71
25	BEST-TROSY experiments for time-efficient sequential resonance assignment of large disordered proteins. <i>Journal of Biomolecular NMR</i> , 2013, 55, 311-321.	2.8	193
26	Highly Efficient NMR Assignment of Intrinsically Disordered Proteins: Application to B- and T Cell Receptor Domains. <i>PLoS ONE</i> , 2013, 8, e62947.	2.5	44
27	Transient Structure and SH3 Interaction Sites in an Intrinsically Disordered Fragment of the Hepatitis C Virus Protein NS5A. <i>Journal of Molecular Biology</i> , 2012, 420, 310-323.	4.2	49
28	Real-Time NMR Characterization of Structure and Dynamics in a Transiently Populated Protein Folding Intermediate. <i>Journal of the American Chemical Society</i> , 2012, 134, 8066-8069.	13.7	46
29	iHADAMAC: A complementary tool for sequential resonance assignment of globular and highly disordered proteins. <i>Journal of Magnetic Resonance</i> , 2012, 214, 329-334.	2.1	18
30	Fast Protein Backbone NMR Resonance Assignment Using the BATCH Strategy. <i>Methods in Molecular Biology</i> , 2012, 831, 407-428.	0.9	3
31	¹³ C-Labeled Heparan Sulfate Analogue as a Tool To Study Protein/Heparan Sulfate Interactions by NMR Spectroscopy: Application to the CXCL12± Chemokine. <i>Journal of the American Chemical Society</i> , 2011, 133, 9642-9645.	13.7	45
32	Recovering lost magnetization: polarization enhancement in biomolecular NMR. <i>Journal of Biomolecular NMR</i> , 2011, 49, 9-15.	2.8	200
33	Rapid measurement of residual dipolar couplings for fast fold elucidation of proteins. <i>Journal of Biomolecular NMR</i> , 2011, 51, 369-378.	2.8	18
34	^1H , ^{13}C , and ^{15}N resonance assignment of a 179 residue fragment of hepatitis C virus non-structural protein 5A. <i>Biomolecular NMR Assignments</i> , 2011, 5, 241-243.	0.8	9
35	Guidelines for the use of band-selective radiofrequency pulses in hetero-nuclear NMR: Example of longitudinal-relaxation-enhanced BEST-type ^1H - ^{15}N correlation experiments. <i>Journal of Magnetic Resonance</i> , 2010, 203, 190-198.	2.1	85
36	Native-unlike Long-lived Intermediates along the Folding Pathway of the Amyloidogenic Protein β 2-Microglobulin Revealed by Real-time Two-dimensional NMR. <i>Journal of Biological Chemistry</i> , 2010, 285, 5827-5835.	3.4	55

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37	Accurate characterization of weak macromolecular interactions by titration of NMR residual dipolar couplings: application to the CD2AP SH3-C:ubiquitin complex. <i>Nucleic Acids Research</i> , 2009, 37, e70-e70.	14.5	46
38	Recent Advances in Solution NMR: Fast Methods and Heteronuclear Direct Detection. <i>ChemPhysChem</i> , 2009, 10, 1356-1368.	2.1	90
39	An improved ultrafast 2D NMR experiment: Towards atom-resolved real-time studies of protein kinetics at multi-Hz rates. <i>Journal of Biomolecular NMR</i> , 2009, 43, 1-10.	2.8	38
40	Detection and assignment of phosphoserine and phosphothreonine residues by ^{13}C - ^{31}P spin-echo difference NMR spectroscopy. <i>Journal of Biomolecular NMR</i> , 2009, 43, 31-37.	2.8	9
41	Highly automated protein backbone resonance assignment within a few hours: the «BATCH» strategy and software package. <i>Journal of Biomolecular NMR</i> , 2009, 44, 43-57.	2.8	20
42	Parallel screening and optimization of protein constructs for structural studies. <i>Protein Science</i> , 2009, 18, 434-439.	7.6	7
43	Longitudinal-Relaxation-Enhanced NMR Experiments for the Study of Nucleic Acids in Solution. <i>Journal of the American Chemical Society</i> , 2009, 131, 8571-8577.	13.7	90
44	Fast Two-Dimensional NMR Spectroscopy of High Molecular Weight Protein Assemblies. <i>Journal of the American Chemical Society</i> , 2009, 131, 3448-3449.	13.7	99
45	Sensitivity-enhanced IPAP-SOFAST-HMQC for fast-pulsing 2D NMR with reduced radiofrequency load. <i>Journal of Magnetic Resonance</i> , 2008, 190, 333-338.	2.1	40
46	Solution Structure of the C-Terminal Nucleoprotein-RNA Binding Domain of the Vesicular Stomatitis Virus Phosphoprotein. <i>Journal of Molecular Biology</i> , 2008, 382, 525-538.	4.2	59
47	Hadamard Amino-Acid-Type Edited NMR Experiment for Fast Protein Resonance Assignment. <i>Journal of the American Chemical Society</i> , 2008, 130, 5014-5015.	13.7	56
48	Protein folding and unfolding studied at atomic resolution by fast two-dimensional NMR spectroscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 11257-11262.	7.1	144
49	Automated Spectral Compression for Fast Multidimensional NMR and Increased Time Resolution in Real-Time NMR Spectroscopy. <i>Journal of the American Chemical Society</i> , 2007, 129, 2756-2757.	13.7	32
50	Hyperdimensional Protein NMR Spectroscopy in Peptide-Sequence Space. <i>Journal of the American Chemical Society</i> , 2007, 129, 11916-11917.	13.7	37
51	UltraSOFAST HMQC NMR and the Repetitive Acquisition of 2D Protein Spectra at Hz Rates. <i>Journal of the American Chemical Society</i> , 2007, 129, 1372-1377.	13.7	99
52	Sensitivity-optimized experiment for the measurement of residual dipolar couplings between amide protons. <i>Journal of Biomolecular NMR</i> , 2007, 38, 47-55.	2.8	6
53	A set of BEST triple-resonance experiments for time-optimized protein resonance assignment. <i>Journal of Magnetic Resonance</i> , 2007, 187, 163-169.	2.1	311
54	Speeding Up Three-Dimensional Protein NMR Experiments to a Few Minutes. <i>Journal of the American Chemical Society</i> , 2006, 128, 9042-9043.	13.7	272

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55	Hadamard frequency-encoded SOFAST-HMQC for ultrafast two-dimensional protein NMR. <i>Journal of Magnetic Resonance</i> , 2006, 178, 334-339.	2.1	34
56	HET-SOFAST NMR for fast detection of structural compactness and heterogeneity along polypeptide chains. <i>Magnetic Resonance in Chemistry</i> , 2006, 44, S177-S184.	1.9	62
57	SOFAST-HMQC Experiments for Recording Two-dimensional Deteronuclear Correlation Spectra of Proteins within a Few Seconds. <i>Journal of Biomolecular NMR</i> , 2005, 33, 199-211.	2.8	603
58	Resolution-Enhanced Base-Type-Edited HCN Experiment for RNA. <i>Journal of Biomolecular NMR</i> , 2005, 32, 263-271.	2.8	4
59	Solution Structure of the Sulfite Reductase Flavodoxin-like Domain from <i>Escherichia coli</i> . <i>Biochemistry</i> , 2005, 44, 9086-9095.	2.5	23
60	Very Fast Two-Dimensional NMR Spectroscopy for Real-Time Investigation of Dynamic Events in Proteins on the Time Scale of Seconds. <i>Journal of the American Chemical Society</i> , 2005, 127, 8014-8015.	13.7	592
61	Combined frequency- and time-domain NMR spectroscopy. Application to fast protein resonance assignment. <i>Journal of Biomolecular NMR</i> , 2004, 29, 57-64.	2.8	24
62	Biophysical characterization of the MerP-like amino-terminal extension of the mercuric reductase from <i>Ralstonia metallidurans</i> CH34. <i>Journal of Biological Inorganic Chemistry</i> , 2004, 9, 49-58.	2.6	21
63	DEPT spectral editing in HCONH-type experiments. Application to fast protein backbone and side chain assignment. <i>Journal of Magnetic Resonance</i> , 2004, 167, 178-184.	2.1	10
64	Suppression of artifacts induced by homonuclear decoupling in amino-acid-type edited methyl ^1H - ^{13}C correlation experiments. <i>Journal of Magnetic Resonance</i> , 2004, 170, 199-205.	2.1	5
65	Amino Acid-Type Edited NMR Experiments for Methyl- ^{13}C Methyl Distance Measurement in ^{13}C -Labeled Proteins. <i>Journal of the American Chemical Society</i> , 2004, 126, 9584-9591.	13.7	32
66	Optimized set of two-dimensional experiments for fast sequential assignment, secondary structure determination, and backbone fold validation of $^{13}\text{C}/^{15}\text{N}$ -labelled proteins. <i>Journal of Biomolecular NMR</i> , 2003, 27, 57-67.	2.8	37
67	Resolution Enhancement in Multidimensional Solid-State NMR Spectroscopy of Proteins Using Spin-State Selection. <i>Journal of the American Chemical Society</i> , 2003, 125, 11816-11817.	13.7	66
68	NMR Study of the Interaction between Zn(II) Ligated Bleomycin and <i>Streptococcus pneumoniae</i> Bleomycin Resistance Protein. <i>Biochemistry</i> , 2003, 42, 651-663.	2.5	11
69	Side Chain Orientation from Methyl ^1H - ^1H Residual Dipolar Couplings Measured in Highly Deuterated Proteins. <i>Journal of the American Chemical Society</i> , 2002, 124, 14616-14625.	13.7	18
70	Direct Structure Determination Using Residual Dipolar Couplings: Reaction-Site Conformation of Methionine Sulfoxide Reductase in Solution. <i>Journal of the American Chemical Society</i> , 2002, 124, 13709-13715.	13.7	24
71	Reactivity, Secondary Structure, and Molecular Topology of the <i>Escherichia coli</i> Sulfite Reductase Flavodoxin-like Domain. <i>Biochemistry</i> , 2002, 41, 3770-3780.	2.5	19
72	Intraresidue HNCA and COHNCA Experiments for Protein Backbone Resonance Assignment. <i>Journal of Magnetic Resonance</i> , 2002, 156, 155-159.	2.1	48

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73	Accurate Measurement of Small Spin-Spin Couplings in Partially Aligned Molecules Using a Novel J-Mismatch Compensated Spin-State-Selection Filter. <i>Journal of Magnetic Resonance</i> , 2001, 151, 332-338.	2.1	36
74	¹ H, ¹³ C and ¹⁵ N assignment of the flavodoxin-like domain of the Escherichia coli sulfite reductase. <i>Journal of Biomolecular NMR</i> , 2001, 21, 71-72.	2.8	5
75	Transverse relaxation optimized HCN experiment for nucleic acids: combining the advantages of TROSY and MQ spin evolution. <i>Journal of Biomolecular NMR</i> , 2001, 21, 367-372.	2.8	23
76	Base-type-selective high-resolution ¹³ C edited NOESY for sequential assignment of large RNAs. <i>Journal of Biomolecular NMR</i> , 2001, 19, 141-151.	2.8	21
77	Principles and applications of cross-correlated relaxation in biomolecules. <i>Concepts in Magnetic Resonance</i> , 2000, 12, 207-229.	1.3	51
78	NMR Determination of Sugar Puckers in Nucleic Acids from CSA-Dipolar Cross-Correlated Relaxation. <i>Journal of the American Chemical Society</i> , 2000, 122, 6779-6780.	13.7	43
79	Title is missing!. <i>Journal of Biomolecular NMR</i> , 1999, 14, 241-252.	2.8	45
80	Improved Sensitivity and Resolution in ¹ H- ¹³ C NMR Experiments of RNA. <i>Journal of the American Chemical Society</i> , 1998, 120, 11845-11851.	13.7	101
81	Backbone Dynamics and Structural Characterization of the Partially Folded A State of Ubiquitin by ¹ H, ¹³ C, and ¹⁵ N Nuclear Magnetic Resonance Spectroscopy. <i>Biochemistry</i> , 1997, 36, 13043-13053.	2.5	181
82	Determination of an Initial Set of NOE-Derived Distance Constraints for the Structure Determination of ¹⁵ N/ ¹³ C-Labeled Proteins. <i>Journal of Magnetic Resonance Series B</i> , 1995, 109, 238-242.	1.6	34
83	Computer assignment of the backbone resonances of labelled proteins using two-dimensional correlation experiments. <i>Journal of Biomolecular NMR</i> , 1995, 5, 154-60.	2.8	38
84	High-resolution 3D HNCOCA experiment applied to a 28 kDa paramagnetic protein. <i>Journal of Biomolecular NMR</i> , 1995, 5, 202-6.	2.8	38
85	Assignment of NMR spectra of proteins using triple-resonance two-dimensional experiments. <i>Journal of Biomolecular NMR</i> , 1994, 4, 325-33.	2.8	53
86	Extensive ¹ H NMR resonance assignment of proteins using natural abundance gradient-enhanced ¹³ C- ¹ H correlation spectroscopy. <i>FEBS Letters</i> , 1993, 333, 251-256.	2.8	21