Junji Iwahara

List of Publications by Year
in descending order

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86	4,651	147801	102487
papers	citations	31 h-index	66 g-index

88	88	88	4213
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Dynamics of Cations around DNA and Protein as Revealed by ²³Na Diffusion NMR Spectroscopy. Analytical Chemistry, 2022, 94, 2444-2452.	6.5	5
2	Protein Electrostatics Investigated through Paramagnetic NMR for Nonpolar Groups. Journal of Physical Chemistry B, 2022, 126, 2196-2202.	2.6	15
3	Negatively Charged Disordered Regions are Prevalent and Functionally Important Across Proteomes. Journal of Molecular Biology, 2022, 434, 167660.	4.2	19
4	Diffusion NMR-based comparison of electrostatic influences of DNA on various monovalent cations. Biophysical Journal, 2022, 121, 3562-3570.	0.5	4
5	Assessment of the Components of the Electrostatic Potential of Proteins in Solution: Comparing Experiment and Theory. Journal of Physical Chemistry B, 2022, 126, 4543-4554.	2.6	8
6	Slow Rotational Dynamics of Cytosine NH₂ Groups in Double-Stranded DNA. Biochemistry, 2022, 61, 1415-1418.	2.5	3
7	Discrete-state stochastic kinetic models for target DNA search by proteins: Theory and experimental applications. Biophysical Chemistry, 2021, 269, 106521.	2.8	14
8	De novo determination of near-surface electrostatic potentials by NMR. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	26
9	Dynamic Autoinhibition of the HMGB1 Protein via Electrostatic Fuzzy Interactions of Intrinsically Disordered Regions. Journal of Molecular Biology, 2021, 433, 167122.	4.2	18
10	Experimental approaches for investigating ion atmospheres around nucleic acids and proteins. Computational and Structural Biotechnology Journal, 2021, 19, 2279-2285.	4.1	12
11	Quantifying and visualizing weak interactions between anions and proteins. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	18
12	Hindered Rotations of Protein Asparagine/Glutamine Side-Chain NH2 Groups: Impact of Hydrogen Bonding with DNA. Journal of Physical Chemistry Letters, 2021, 12, 11378-11382.	4.6	1
13	Detecting Counterion Dynamics in DNAâ€“Protein Association. Angewandte Chemie, 2020, 132, 1481-1484.	2.0	1
14	Detecting Counterion Dynamics in DNAâ€“Protein Association. Angewandte Chemie - International Edition, 2020, 59, 1465-1468.	13.8	14
15	Racemic phosphorothioate as a tool for NMR investigations of protein-DNA complexes. Journal of Biomolecular NMR, 2020, 74, 421-429.	2.8	2
16	Dynamics of Ionic Interactions at Proteinâ€“Nucleic Acid Interfaces. Accounts of Chemical Research, 2020, 53, 1802-1810.	15.6	36
17	Hydrogen-exchange kinetics studied through analysis of self-decoupling of nuclear magnetic resonance. Journal of Magnetic Resonance, 2020, 312, 106687.	2.1	3
18	NMR Observation of Intermolecular Hydrogen Bonds between Protein Tyrosine Side-Chain OH and DNA Phosphate Groups. Journal of Physical Chemistry B, 2020, 124, 1065-1070.	2.6	16

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19	Mobility of Histidine Side Chains Analyzed with ¹⁵N NMR Relaxation and Cross-Correlation Data: Insight into Zinc-Fingerâ€“DNA Interactions. Journal of Physical Chemistry B, 2019, 123, 3706-3710.	2.6	6
20	Experimental Evidence of Solvent-Separated Ion Pairs as Metastable States in Electrostatic Interactions of Biological Macromolecules. Journal of Physical Chemistry Letters, 2019, 10, 7937-7941.	4.6	9
21	NMR Methods for Characterizing the Basic Side Chains of Proteins: Electrostatic Interactions, Hydrogen Bonds, and Conformational Dynamics. Methods in Enzymology, 2019, 615, 285-332.	1.0	13
22	Direct detection of lysine side chain NH₃⁺ in proteinâ€“heparin complexes using NMR spectroscopy. Analyst, The, 2018, 143, 635-638.	3.5	10
23	Impact of two-bond 15Nâ€“15N scalar couplings on 15N transverse relaxation measurements for arginine side chains of proteins. Journal of Biomolecular NMR, 2018, 71, 45-51.	2.8	5
24	NMR-based investigations into target DNA search processes of proteins. Methods, 2018, 148, 57-66.	3.8	12
25	Lysines and Arginines play non-redundant roles in mediating chemokine-glycosaminoglycan interactions. Scientific Reports, 2018, 8, 12289.	3.3	18
26	Discrete-State Kinetics Model for NMR-Based Analysis of Protein Translocation on DNA at Equilibrium. Journal of Physical Chemistry B, 2017, 121, 9548-9556.	2.6	5
27	Internal Motions of Basic Side Chains of the Antennapedia Homeodomain in the Free and DNA-Bound States. Biochemistry, 2017, 56, 5866-5869.	2.5	19
28	Potential role of DNA methylation as a facilitator of target search processes for transcription factors through interplay with methyl-CpG-binding proteins. Nucleic Acids Research, 2017, 45, 7751-7759.	14.5	16
29	A Unique and Simple Approach to Improve Sensitivity in 15N-NMR Relaxation Measurements for NH3+ Groups: Application to a Protein-DNA Complex. Molecules, 2017, 22, 1355.	3.8	5
30	Stereospecific Effects of Oxygenâ€toâ€Sulfur Substitution in DNA Phosphate on Ion Pair Dynamics and Proteinâ€“DNA Affinity. ChemBioChem, 2016, 17, 1636-1642.	2.6	15
31	Changes in conformational dynamics of basic side chains upon proteinâ€“DNA association. Nucleic Acids Research, 2016, 44, 6961-6970.	14.5	51
32	Regulation of transcription factors via natural decoys in genomic DNA. Transcription, 2016, 7, 115-120.	3.1	28
33	NMR Scalar Couplings across Intermolecular Hydrogen Bonds between Zinc-Finger Histidine Side Chains and DNA Phosphate Groups. Journal of Physical Chemistry B, 2016, 120, 10679-10685.	2.6	12
34	Thermodynamic Additivity for Impacts of Base-Pair Substitutions on Association of the Egr-1 Zinc-Finger Protein with DNA. Biochemistry, 2016, 55, 6467-6474.	2.5	9
35	Residence Times of Molecular Complexes in Solution from NMR Data of Intermolecular Hydrogen-Bond Scalar Coupling. Journal of Physical Chemistry Letters, 2016, 7, 820-824.	4.6	13
36	Physicochemical Properties of Ion Pairs of Biological Macromolecules. Biomolecules, 2015, 5, 2435-2463.	4.0	30

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37	Structural impact of complete CpG methylation within target DNA on specific complex formation of the inducible transcription factor Egrâ€1. FEBS Letters, 2015, 589, 1748-1753.	2.8	39
38	Temperature Dependence of Internal Motions of Protein Side-Chain NH₃⁺ Groups: Insight into Energy Barriers for Transient Breakage of Hydrogen Bonds. Biochemistry, 2015, 54, 538-545.	2.5	23
39	A chemical approach for site-specific identification of NMR signals from protein side-chain NH3 + groups forming intermolecular ion pairs in proteinâ€“nucleic acid complexes. Journal of Biomolecular NMR, 2015, 62, 1-5.	2.8	15
40	Dynamic Equilibria of Short-Range Electrostatic Interactions at Molecular Interfaces of Proteinâ€“DNA Complexes. Journal of Physical Chemistry Letters, 2015, 6, 2733-2737.	4.6	39
41	Balancing between affinity and speed in target DNA search by zinc-finger proteins via modulation of dynamic conformational ensemble. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E5142-9.	7.1	90
42	Influence of Quasi-Specific Sites on Kinetics of Target DNA Search by a Sequence-Specific DNA-Binding Protein. Biochemistry, 2015, 54, 6684-6691.	2.5	22
43	Entropic Enhancement of Protein-DNA Affinity by Oxygen-to-Sulfur Substitution in DNA Phosphate. Biophysical Journal, 2015, 109, 1026-1037.	0.5	46
44	Positive and negative impacts of nonspecific sites during target location by a sequence-specific DNA-binding protein: origin of the optimal search at physiological ionic strength. Nucleic Acids Research, 2014, 42, 7039-7046.	14.5	65
45	Stopped-Flow Fluorescence Kinetic Study of Protein Sliding and Intersegment Transfer in the Target DNA Search Process. Journal of Molecular Biology, 2014, 426, 230-244.	4.2	49
46	Effective strategy to assign 1H-15N heteronuclear correlation NMR signals from lysine side-chain NH3 + groups of proteins at low temperature. Journal of Biomolecular NMR, 2014, 60, 23-27.	2.8	19
47	Real-time Kinetics of High-mobility Group Box 1 (HMGB1) Oxidation in Extracellular Fluids Studied by in Situ Protein NMR Spectroscopy. Journal of Biological Chemistry, 2013, 288, 11621-11627.	3.4	70
48	Direct Observation of the Ion-Pair Dynamics at a Proteinâ€“DNA Interface by NMR Spectroscopy. Journal of the American Chemical Society, 2013, 135, 3613-3619.	13.7	57
49	NMR Studies on the Dynamics of Hydrogen Bonds and Ion Pairs Involving Lysine Side Chains of Proteins. Advances in Protein Chemistry and Structural Biology, 2013, 93, 37-80.	2.3	29
50	Speed-stability paradox in DNA-scanning by zinc-finger proteins. Transcription, 2013, 4, 58-61.	3.1	22
51	Asymmetrical roles of zinc fingers in dynamic DNA-scanning process by the inducible transcription factor Egr-1. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E1724-E1732.	7.1	90
52	Dynamics of Lysine Side-Chain Amino Groups in a Protein Studied by Heteronuclear ¹Hâ€™¹⁵N NMR Spectroscopy. Journal of the American Chemical Society, 2011, 133, 909-919.	13.7	71
53	Signature of Mobile Hydrogen Bonding of Lysine Side Chains from Long-Range ¹⁵Nâ€“¹³C Scalar J-Couplings and Computation. Journal of the American Chemical Society, 2011, 133, 9192-9195.	13.7	40
54	Structure-Independent Analysis of the Breadth of the Positional Distribution of Disordered Groups in Macromolecules from Order Parameters for Long, Variable-Length Vectors Using NMR Paramagnetic Relaxation Enhancement. Journal of the American Chemical Society, 2010, 132, 13346-13356.	13.7	39

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55	NMR Studies of Translocation of the Zif268 Protein between Its Target DNA Sites. Biochemistry, 2010, 49, 7998-8005.	2.5	31
56	Theory, Practice, and Applications of Paramagnetic Relaxation Enhancement for the Characterization of Transient Low-Population States of Biological Macromolecules and Their Complexes. Chemical Reviews, 2009, 109, 4108-4139.	47.7	692
57	Observing in-phase single-quantum 15N multiplets for groups with two-dimensional heteronuclear correlation spectroscopy. Journal of Magnetic Resonance, 2008, 194, 313-316.	2.1	11
58	Redox properties of the Aâ€domain of the HMGB1 protein. FEBS Letters, 2008, 582, 3973-3978.	2.8	37
59	Direct Evidence for Deprotonation of a Lysine Side Chain Buried in the Hydrophobic Core of a Protein. Journal of the American Chemical Society, 2008, 130, 6714-6715.	13.7	52
60	Investigations of Intermediates in Macromolecular Binding Process Using NMR-PRE Method. Seibutsu Butsuri, 2008, 48, 018-022.	0.1	1
61	Intramolecular domain-domain association/dissociation and phosphoryl transfer in the mannitol transporter of Escherichia coli are not coupled. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 3153-3158.	7.1	22
62	TROSY-Based z-Exchange Spectroscopy:â€‰ Application to the Determination of the Activation Energy for Intermolecular Protein Translocation between Specific Sites on Different DNA Molecules. Journal of the American Chemical Society, 2007, 129, 13232-13237.	13.7	43
63	Heteronuclear NMR Spectroscopy for Lysine NH3 Groups in Proteins:â€‰ Unique Effect of Water Exchange on 15N Transverse Relaxation. Journal of the American Chemical Society, 2007, 129, 2971-2980.	13.7	97
64	Practical aspects of 1H transverse paramagnetic relaxation enhancement measurements on macromolecules. Journal of Magnetic Resonance, 2007, 184, 185-195.	2.1	239
65	Elucidating transient macromolecular interactions using paramagnetic relaxation enhancement. Current Opinion in Structural Biology, 2007, 17, 603-616.	5.7	201
66	KUJIRA, a package of integrated modules for systematic and interactive analysis of NMR data directed to high-throughput NMR structure studies. Journal of Biomolecular NMR, 2007, 39, 31-52.	2.8	153
67	Direct Observation of Enhanced Translocation of a Homeodomain between DNA Cognate Sites by NMR Exchange Spectroscopy. Journal of the American Chemical Society, 2006, 128, 404-405.	13.7	89
68	Detecting transient intermediates in macromolecular binding by paramagnetic NMR. Nature, 2006, 440, 1227-1230.	27.8	349
69	Visualization of transient encounter complexes in proteinâ€“protein association. Nature, 2006, 444, 383-386.	27.8	397
70	Sensitivity improvement for correlations involving arginine side-chain NÎµ/HÎµ resonances in multi-dimensional NMR experiments using broadband 15N 180Â° pulses. Journal of Biomolecular NMR, 2006, 36, 251-257.	2.8	14
71	NMR structural and kinetic characterization of a homeodomain diffusing and hopping on nonspecific DNA. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 15062-15067.	7.1	172
72	Compensating increases in protein backbone flexibility occur when the Dead ringer AT-rich interaction domain (ARID) binds DNA: A nitrogen-15 relaxation study. Protein Science, 2005, 14, 1140-1150.	7.6	7

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73	Accurate Determination of Leucine and Valine Side-chain Conformations using U-[15N/13C/2H]/[1H-(methine/methyl)-Leu/Val] Isotope Labeling, NOE Pattern Recognition, and Methine CÎ³â€“HÎ³/CÎ²â€“HÎ² Residual Dipolar Couplings: Application to the 34-kDa Enzyme IIAChitobiose. Journal of Biomolecular NMR, 2005, 33, 105-121.	2.8	12
74	Characterization of Nonspecific Proteinâ^'DNA Interactions by1H Paramagnetic Relaxation Enhancement. Journal of the American Chemical Society, 2004, 126, 12800-12808.	13.7	76
75	Ensemble Approach for NMR Structure Refinement against1H Paramagnetic Relaxation Enhancement Data Arising from a Flexible Paramagnetic Group Attached to a Macromolecule. Journal of the American Chemical Society, 2004, 126, 5879-5896.	13.7	317
76	EDTA-Derivatized Deoxythymidine as a Tool for Rapid Determination of Protein Binding Polarity to DNA by Intermolecular Paramagnetic Relaxation Enhancement. Journal of the American Chemical Society, 2003, 125, 6634-6635.	13.7	72
77	Regulation of Directionality in Bacteriophage Î» Site-specific Recombination: Structure of the Xis Protein. Journal of Molecular Biology, 2002, 324, 791-805.	4.2	46
78	Solution structure determination of the two DNA-binding domains in the Schizosaccharomyces pombe Abp1 protein by a combination of dipolar coupling and diffusion anisotropy restraints. Journal of Biomolecular NMR, 2002, 22, 333-347.	2.8	17
79	The structure of the Dead ringer-DNA complex reveals how AT-rich interaction domains (ARIDs) recognize DNA. EMBO Journal, 2002, 21, 1197-1209.	7.8	59
80	An Efficient NMR Experiment for Analyzing Sugar-Puckering in Unlabeled DNA: Application to the 26-kDa Dead Ringerâ€“DNA Complex. Journal of Magnetic Resonance, 2001, 153, 262-266.	2.1	4
81	Improved NMR spectra of a protein-DNA complex through rational mutagenesis and the application of a sensitivity optimized isotope-filtered NOESY experiment. Journal of Biomolecular NMR, 2001, 19, 231-241.	2.8	60
82	Assignment of the 1H, 13C and 15N signals of Sortase. Journal of Biomolecular NMR, 2001, 19, 379-380.	2.8	13
83	The Mu repressor-DNA complex contains an immobilized 'wing' within the minor groove. Nature Structural Biology, 2001, 8, 84-90.	9.7	17
84	Letter to the Editor: 1H, 13C and 15N resonance assignments of the AT-rich interaction domain from the Dead Ringer protein. , 1999, 15, 85-86.		3
85	Solution structure of the Eps15 homology domain of a human POB1 (partner of RalBP1). FEBS Letters, 1999, 442, 138-142.	2.8	29
86	Gaussian Spectral-Density Function for Protein Internal Motions. Journal of Magnetic Resonance Series B, 1996, 111, 281-284.	1.6	3