Robert Konrat

List of Publications by Year
in descending order

80 papers	2,106 citations	304368 22 h-index	276539 41 g-index
91 all docs	91 docs citations	91 times ranked	2311 citing authors

#	Article	IF	Citations
1	BEST-TROSY experiments for time-efficient sequential resonance assignment of large disordered proteins. Journal of Biomolecular NMR, 2013, 55, 311-321.	1.6	193
2	NMR contributions to structural dynamics studies of intrinsically disordered proteins. Journal of Magnetic Resonance, 2014, 241, 74-85.	1.2	153
3	A Multidimensional NMR Experiment for Measurement of the Protein Dihedral Angle Ï^ Based on Cross-Correlated Relaxation between1HÎ±â^'13CÎ±Dipolar and13Câ€˜ (Carbonyl) Chemical Shift Anisotropy Mechanisms. Journal of the American Chemical Society, 1997, 119, 11938-11940.	6.6	100
4	Structure, function, and dynamics of the dimerization and DNA-binding domain of oncogenic transcription factor v-Myc11Edited by P. E. Wright. Journal of Molecular Biology, 2001, 307, 1395-1410.	2.0	96
5	Cooperative Unfolding of Compact Conformations of the Intrinsically Disordered Protein Osteopontin. Biochemistry, 2013, 52, 5167-5175.	1.2	90
6	An (H)C(CO)NH-TOCSY pulse scheme for sequential assignment of protonated methyl groups in otherwise deuterated 15N, 13C-labeled proteins. Journal of Biomolecular NMR, 1996, 8, 351-356.	1.6	85
7	Differential multiple-quantum relaxation arising from cross-correlated time-modulation of isotropic chemical shifts. , 2000, 18, 33-42.		77
8	The Ambivalent Role of Proline Residues in an Intrinsically Disordered Protein: From Disorder Promoters to Compaction Facilitators. Journal of Molecular Biology, 2020, 432, 3093-3111.	2.0	65
9	The Metastasis-Associated Extracellular Matrix Protein Osteopontin Forms Transient Structure in Ligand Interaction Sites. Biochemistry, 2011, 50, 6113-6124.	1.2	64
10	Compensatory Adaptations of Structural Dynamics in an Intrinsically Disordered Protein Complex. Angewandte Chemie - International Edition, 2014, 53, 3840-3843.	7.2	59
11	Investigation of Intrinsically Disordered Proteins through Exchange with Hyperpolarized Water. Angewandte Chemie - International Edition, 2017, 56, 389-392.	7.2	53
12	A 4D TROSY-based pulse scheme for correlating 1HNi,15Ni,13Calphai,13C'i-1 chemical shifts in high molecular weight, 15N,13C, 2H labeled proteins. Journal of Biomolecular NMR, 1999, 15, 309-313.	1.6	49
13	Excited States of Nucleic Acids Probed by Proton Relaxation Dispersion NMR Spectroscopy. Angewandte Chemie - International Edition, 2016, 55, 12008-12012.	7.2	48
14	The protein meta-structure: a novel concept for chemical and molecular biology. Cellular and Molecular Life Sciences, 2009, 66, 3625-3639.	2.4	46
15	Biochemical and Structural Characterization of the Interaction between the Siderocalin NGAL/LCN2 (Neutrophil Gelatinase-associated Lipocalin/Lipocalin 2) and the N-terminal Domain of Its Endocytic Receptor SLC22A17. Journal of Biological Chemistry, 2016, 291, 2917-2930.	1.6	45
16	PI by NMR: Probing CHâ€“Ï€ Interactions in Proteinâ€“Ligand Complexes by NMR Spectroscopy. Angewandte Chemie - International Edition, 2020, 59, 14861-14868.	7.2	39
17	Î±-Ketoacids as precursors for phenylalanine and tyrosine labelling in cell-based protein overexpression. Journal of Biomolecular NMR, 2013, 57, 327-331.	1.6	36
18	Pulse schemes for the measurement of 3JC'C gamma and 3JNC gamma scalar couplings in 15N,13C uniformly labeled proteins. Journal of Biomolecular NMR, 1997, 9, 409-422.	1.6	34

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19	Structure and Intramodular Dynamics of the Amino-Terminal LIM Domain from Quail Cysteine- and Glycine-Rich Protein CRP2â€‚â€¡. Biochemistry, 1998, 37, 7127-7134.	1.2	34
20	Automated NMR determination of protein backbone dihedral angles from cross-correlated spin relaxation. Journal of Biomolecular NMR, 2002, 22, 349-363.	1.6	31
21	Structure and dynamics of the B12-binding subunit of glutamate mutase from Clostridium cochlearium. FEBS Journal, 1999, 263, 178-188.	0.2	29
22	Modulation of Correlated Segment Fluctuations in IDPs upon Complex Formation as an Allosteric Regulatory Mechanism. Journal of Molecular Biology, 2018, 430, 2439-2452.	2.0	26
23	Direct NMR Probing of Hydration Shells of Protein Ligand Interfaces and Its Application to Drug Design. Journal of Medicinal Chemistry, 2017, 60, 8708-8715.	2.9	25
24	Selective targeting of 3 repeat Tau with brain penetrating single chain antibodies for the treatment of neurodegenerative disorders. Acta Neuropathologica, 2018, 136, 69-87.	3.9	23
25	Osteopontin regulates biomimetic calcium phosphate crystallization from disordered mineral layers covering apatite crystallites. Scientific Reports, 2020, 10, 15722.	1.6	23
26	Measurement of the protein backbone dihedral angle phi based on quantification of remote CSA/DD interference in inter-residue 13C'(i - 1)-13Calpha(i) multiple-quantum coherences. , 2000, 17, 265-268.		22
27	NMR Spectroscopic Studies of the Conformational Ensembles of Intrinsically Disordered Proteins. Advances in Experimental Medicine and Biology, 2015, 870, 149-185.	0.8	22
28	The Structure of Methylcob(III)alamin in Aqueous Solution - A Water Molecule as Structuring Element of the Nucleotide Loop. Helvetica Chimica Acta, 1999, 82, 1596-1609.	1.0	21
29	Peptide Plane Torsion Angles in Proteins through Intraresidue 1Hâ^'15Nâ^'13Câ€˜ Dipoleâ^'CSA Relaxation Interference:â€‰ Facile Discrimination between Type-I and Type-II Î²-Turns. Journal of the American Chemical Society, 2000, 122, 12033-12034.	6.6	21
30	Relative Orientation of Peptide Planes in Proteins Is Reflected in Carbonylâ^'Carbonyl Chemical Shift Anisotropy Cross-Correlated Spin Relaxation. Journal of the American Chemical Society, 2000, 122, 7059-7071.	6.6	21
31	Simultaneous measurement of intra- and intermolecular NOEs in differentially labeled protein-ligand complexes. Journal of Biomolecular NMR, 2001, 21, 107-116.	1.6	21
32	NMR Characterization of Longâ€Range Contacts in Intrinsically Disordered Proteins from Paramagnetic Relaxation Enhancement in ¹³C Directâ€Detection Experiments. ChemBioChem, 2019, 20, 335-339.	1.3	21
33	NMR probing and visualization of correlated structural fluctuations in intrinsically disordered proteins. Physical Chemistry Chemical Physics, 2017, 19, 10651-10656.	1.3	18
34	Late metabolic precursors for selective aromatic residue labeling. Journal of Biomolecular NMR, 2018, 71, 129-140.	1.6	18
35	Sensitivity-enhanced three-dimensional and carbon-detected two-dimensional NMR of proteins using hyperpolarized water. Journal of Biomolecular NMR, 2020, 74, 161-171.	1.6	17
36	Membrane Interactions of Î±-Synuclein Revealed by Multiscale Molecular Dynamics Simulations, Markov State Models, and NMR. Journal of Physical Chemistry B, 2021, 125, 2929-2941.	1.2	17

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37	Calcium-dependent binding of Myc to calmodulin. Oncotarget, 2017, 8, 3327-3343.	0.8	16
38	NMR Techniques to Study Hydrogen Bondingin Aqueous Solution. Monatshefte FÃ¼r Chemie, 1999, 130, 961-982.	0.9	15
39	Mapping the ligand binding site at protein side-chains in protein-ligand complexes through NOE difference spectroscopy. Journal of Biomolecular NMR, 2001, 20, 195-202.	1.6	15
40	A histone-mimicking interdomain linker in a multidomain protein modulates multivalent histone binding. Journal of Biological Chemistry, 2017, 292, 17643-17657.	1.6	15
41	Hyperphosphorylation of Human Osteopontin and Its Impact on Structural Dynamics and Molecular Recognition. Biochemistry, 2021, 60, 1347-1355.	1.2	15
42	Order from disorder in the sarcomere: FATZ forms a fuzzy but tight complex and phase-separated condensates with Î±-actinin. Science Advances, 2021, 7, .	4.7	15
43	The Meandering of Disordered Proteins in Conformational Space. Structure, 2010, 18, 416-419.	1.6	13
44	NMR Characterization of Surface Receptor Protein Interactions in Live Cells Using Methylcellulose Hydrogels. Angewandte Chemie - International Edition, 2020, 59, 3886-3890.	7.2	13
45	Meta-structure correlation in protein space unveils different selection rules for folded and intrinsically disordered proteins. Molecular BioSystems, 2012, 8, 411-416.	2.9	12
46	Anthranilic acid, the new player in the ensemble of aromatic residue labeling precursor compounds. Journal of Biomolecular NMR, 2017, 69, 13-22.	1.6	12
47	Heteronuclear relaxation in time-dependent spin systems: (15)N-T1 (rho) dispersion during adiabatic fast passage. Journal of Biomolecular NMR, 1999, 13, 213-221.	1.6	11
48	Backbone assignment of osteopontin, a cytokine and cell attachment protein implicated in tumorigenesis. Biomolecular NMR Assignments, 2008, 2, 29-31.	0.4	11
49	19 Fâ€…NMR Spectroscopy Tagging and Paramagnetic Relaxation Enhancementâ€Based Conformation Analysis of Intrinsically Disordered Protein Complexes. ChemBioChem, 2020, 21, 696-701.	1.3	11
50	Five and four dimensional experiments for robust backbone resonance assignment of large intrinsically disordered proteins: application to Tau3x protein. Journal of Biomolecular NMR, 2016, 65, 193-203.	1.6	9
51	Highly Selective Stable Isotope Labeling of Histidine Residues by Using a Novel Precursor in E.â€…coliâ€Based Overexpression Systems. ChemBioChem, 2017, 18, 1487-1491.	1.3	9
52	Temperature as an Extra Dimension in Multidimensional Protein NMR Spectroscopy. Chemistry - A European Journal, 2021, 27, 1753-1767.	1.7	9
53	Molecular basis of F-actin regulation and sarcomere assembly via myotilin. PLoS Biology, 2021, 19, e3001148.	2.6	9
54	1H, 15N, 13C resonance assignment of human osteopontin. Biomolecular NMR Assignments, 2015, 9, 289-292.	0.4	8

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55	Excited States of Nucleic Acids Probed by Proton Relaxation Dispersion NMR Spectroscopy. Angewandte Chemie, 2016, 128, 12187-12191.	1.6	8
56	1H, 15N, 13C resonance assignment of human GAP-43. Biomolecular NMR Assignments, 2016, 10, 171-174.	0.4	8
57	1H, 13C, 15N resonance assignment of human YAP 50â€“171 fragment. Biomolecular NMR Assignments, 2018, 12, 179-182.	0.4	8
58	Using Crossâ€Correlated Spin Relaxation to Characterize Backbone Dihedral Angle Distributions of Flexible Protein Segments. ChemPhysChem, 2021, 22, 18-28.	1.0	7
59	PI by NMR: Probing CHâ€“Ï€ Interactions in Proteinâ€“Ligand Complexes by NMR Spectroscopy. Angewandte Chemie, 2020, 132, 14971-14978.	1.6	7
60	Letter to the editor: Backbone assignment of the dimerization and DNA-binding domain of the oncogenic transcription factor v-Myc in complex with its authentic binding partner Max. Journal of Biomolecular NMR, 2004, 30, 361-362.	1.6	6
61	Untersuchung von intrinsisch unstrukturierten Proteinen mithilfe des Austausches mit hyperpolarisiertem Wasser. Angewandte Chemie, 2017, 129, 397-401.	1.6	6
62	Detecting anisotropic segmental dynamics in disordered proteins by cross-correlated spin relaxation. Magnetic Resonance, 2021, 2, 557-569.	0.8	6
63	Binding Mode Characterization of Osteopontin on Hydroxyapatite by Solution NMR Spectroscopy. ChemBioChem, 2021, 22, 2300-2305.	1.3	5
64	Long-range structural preformation in yes-associated protein precedes encounter complex formation with TEAD. IScience, 2022, 25, 104099.	1.9	5
65	Sequence-specific resonance assignments of Q83, a lipocalin highly expressed in v-myc-transformed avian fibroblasts. Journal of Biomolecular NMR, 2000, 17, 177-178.	1.6	4
66	Strategies for purifying variants of human rhinovirus 14 2C protein. Protein Expression and Purification, 2014, 95, 28-37.	0.6	4
67	IDPs: Less Disordered and More Ordered than Expected. Biophysical Journal, 2015, 109, 1309-1311.	0.2	4
68	Nâ€Lauroylation during the Expression of Recombinant Nâ€Myristoylated Proteins: Implications and Solutions. ChemBioChem, 2016, 17, 82-89.	1.3	4
69	Binding of the protein ICln to Î±-integrin contributes to the activation of IClswell current. Scientific Reports, 2019, 9, 12195.	1.6	4
70	NMR Characterization of Surface Receptor Protein Interactions in Live Cells Using Methylcellulose Hydrogels. Angewandte Chemie, 2020, 132, 3914-3918.	1.6	4
71	A novel high-dimensional NMR experiment for resolving protein backbone dihedral angle ambiguities. Journal of Biomolecular NMR, 2020, 74, 257-265.	1.6	4
72	19F multiple-quantum coherence NMR spectroscopy for probing proteinâ€“ligand interactions. RSC Advances, 2018, 8, 40687-40692.	1.7	3

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73	Onâ€Cell NMR Contributions to Membrane Receptor Binding Characterization. ChemPlusChem, 2021, 86, 938-945.	1.3	3
74	Association between Predicted Effects of TP53 Missense Variants on Protein Conformation and Their Phenotypic Presentation as Li-Fraumeni Syndrome or Hereditary Breast Cancer. International Journal of Molecular Sciences, 2021, 22, 6345.	1.8	3
75	A Step Towards NRF2â€DNA Interaction Inhibitors by Fragmentâ€Based NMR Methods. ChemMedChem, 2021, 16, 3576-3587.	1.6	3
76	1H, 15N, 13C resonance assignment of the human CD44 cytoplasmic tail (669â€“742). Biomolecular NMR Assignments, 2019, 13, 109-113.	0.4	2
77	Cosolute modulation of protein oligomerization reactions in the homeostatic timescale. Biophysical Journal, 2021, 120, 2067-2077.	0.2	2
78	Titelbild: PI by NMR: Probing CHâ€“Ï€ Interactions in Proteinâ€“Ligand Complexes by NMR Spectroscopy (Angew. Chem. 35/2020). Angewandte Chemie, 2020, 132, 14805-14805.	1.6	1
79	Relaxation-Induced Polarization Transfer and the Determination of Methyl Group 13C Chemical Shielding Anisotropy. Journal of Physical Chemistry A, 1999, 103, 5253-5258.	1.1	0
80	Probing Local Backbone Geometries in Intrinsically Disordered Proteins by Crossâ€Correlated NMR Relaxation. Angewandte Chemie, 2013, 125, 4702-4704.	1.6	0