Boris FÃ¼rtig

List of Publications by Year
in descending order

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79 papers	3,328 citations	172457 29 h-index	155660 55 g-index
91 all docs	91 docs citations	91 times ranked	3136 citing authors

#	Article	IF	Citations
1	NMR Spectroscopy of RNA. ChemBioChem, 2003, 4, 936-962.	2.6	428
2	Adenosine-to-inosine RNA editing controls cathepsin S expression in atherosclerosis by enabling HuR-mediated post-transcriptional regulation. Nature Medicine, 2016, 22, 1140-1150.	30.7	222
3	Three-state mechanism couples ligand and temperature sensing in riboswitches. Nature, 2013, 499, 355-359.	27.8	181
4	High-resolution NMR structure of an RNA model system: the 14-mer cUUCGg tetraloop hairpin RNA. Nucleic Acids Research, 2010, 38, 683-694.	14.5	176
5	Structures of RNA Switches: Insight into Molecular Recognition and Tertiary Structure. Angewandte Chemie - International Edition, 2007, 46, 1212-1219.	13.8	159
6	Interplay of 'induced fit' and preorganization in the ligand induced folding of the aptamer domain of the guanine binding riboswitch. Nucleic Acids Research, 2006, 35, 572-583.	14.5	142
7	Time-resolved NMR methods resolving ligand-induced RNA folding at atomic resolution. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 15699-15704.	7.1	126
8	Secondary structure determination of conserved SARS-CoV-2 RNA elements by NMR spectroscopy. Nucleic Acids Research, 2020, 48, 12415-12435.	14.5	125
9	Time-resolved NMR studies of RNA folding. Biopolymers, 2007, 86, 360-383.	2.4	104
10	Kinetics of Photoinduced RNA Refolding by Real-Time NMR Spectroscopy. Angewandte Chemie - International Edition, 2005, 44, 2600-2603.	13.8	98
11	Timeâ€Resolved NMR Spectroscopic Studies of DNA iâ€Motif Folding Reveal Kinetic Partitioning. Angewandte Chemie - International Edition, 2012, 51, 250-253.	13.8	87
12	Mapping the Landscape of RNA Dynamics with NMR Spectroscopy. Accounts of Chemical Research, 2011, 44, 1292-1301.	15.6	77
13	The Nature of Hydrogen Bonds in Cytidineâ‹…â‹…â‹…H⁺â‹…â‹…â‹…Cytidine DNA Base Pairs. Angewandte Chemie - International Edition, 2012, 51, 4067-4070.	13.8	65
14	Conformational Dynamics of Bistable RNAs Studied by Time-Resolved NMR Spectroscopy. Journal of the American Chemical Society, 2007, 129, 16222-16229.	13.7	61
15	Multiple conformational states of riboswitches fine-tune gene regulation. Current Opinion in Structural Biology, 2015, 30, 112-124.	5.7	60
16	New NMR experiments for RNA nucleobase resonance assignment and chemical shift analysis of an RNA UUCG tetraloop. Journal of Biomolecular NMR, 2004, 28, 69-79.	2.8	55
17	Water-Soluble Py-BIPS Spiropyrans as Photoswitches for Biological Applications. Organic Letters, 2015, 17, 1517-1520.	4.6	55
18	Exploring the Druggability of Conserved RNA Regulatory Elements in the SARSâ€CoVâ€2 Genome. Angewandte Chemie - International Edition, 2021, 60, 19191-19200.	13.8	55

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19	Rapid NMR screening of RNA secondary structure and binding. Journal of Biomolecular NMR, 2015, 63, 67-76.	2.8	49
20	Transient RNAâ€“protein interactions in RNA folding. FEBS Journal, 2011, 278, 1634-1642.	4.7	48
21	Pausing guides RNA folding to populate transiently stable RNA structures for riboswitch-based transcription regulation. ELife, 2017, 6, .	6.0	48
22	Life times of metastable states guide regulatory signaling in transcriptional riboswitches. Nature Communications, 2018, 9, 944.	12.8	46
23	A Caged Uridine for the Selective Preparation of an RNA Fold and Determination of its Refolding Kinetics by Real-Time NMR. ChemBioChem, 2006, 7, 417-420.	2.6	45
24	NMR Structural Profiling of Transcriptional Intermediates Reveals Riboswitch Regulation by Metastable RNA Conformations. Journal of the American Chemical Society, 2017, 139, 2647-2656.	13.7	43
25	Optimizing the Kinetics and Thermodynamics of DNA iâ€Motif Folding. ChemBioChem, 2013, 14, 1226-1230.	2.6	42
26	13C-direct detected NMR experiments for the sequential J-based resonance assignment of RNA oligonucleotides. Journal of Biomolecular NMR, 2010, 47, 259-269.	2.8	39
27	Ligand-modulated folding of the full-length adenine riboswitch probed by NMR and single-molecule FRET spectroscopy. Nucleic Acids Research, 2017, 45, 5512-5522.	14.5	37
28	NMR-spectroscopic characterisation of phosphodiester bond cleavage catalyzed by the minimal hammerhead ribozyme. RNA Biology, 2008, 5, 41-48.	3.1	30
29	19F-labeling of the adenine H2-site to study large RNAs by NMR spectroscopy. Journal of Biomolecular NMR, 2016, 64, 63-74.	2.8	29
30	A 300-fold enhancement of imino nucleic acid resonances by hyperpolarized water provides a new window for probing RNA refolding by 1D and 2D NMR. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 2449-2455.	7.1	29
31	Large-Scale Recombinant Production of the SARS-CoV-2 Proteome for High-Throughput and Structural Biology Applications. Frontiers in Molecular Biosciences, 2021, 8, 653148.	3.5	29
32	Probing Mechanism and Transition State of RNA Refolding. ACS Chemical Biology, 2010, 5, 753-765.	3.4	26
33	1H, 13C, and 15N backbone chemical shift assignments of the C-terminal dimerization domain of SARS-CoV-2 nucleocapsid protein. Biomolecular NMR Assignments, 2021, 15, 129-135.	0.8	25
34	RNA phosphodiester backbone dynamics of a perdeuterated cUUCGg tetraloop RNA from phosphorus-31 NMR relaxation analysis. Journal of Biomolecular NMR, 2009, 45, 143-155.	2.8	23
35	More than Proton Detectionâ€”New Avenues for NMR Spectroscopy of RNA. Chemistry - A European Journal, 2020, 26, 102-113.	3.3	22
36	Metal-Induced Folding of Dielsâ€“Alderase Ribozymes Studied by Static and Time-Resolved NMR Spectroscopy. Journal of the American Chemical Society, 2009, 131, 6261-6270.	13.7	20

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37	The RNA annealing mechanism of the HIV-1 Tat peptide: conversion of the RNA into an annealing-competent conformation. Nucleic Acids Research, 2011, 39, 4405-4418.	14.5	19
38	¹⁹F NMRâ€Based Fragment Screening for 14 Different Biologically Active RNAs and 10 DNA and Protein Counterâ€Screens. ChemBioChem, 2021, 22, 423-433.	2.6	19
39	Switching at the ribosome: riboswitches need rProteins as modulators to regulate translation. Nature Communications, 2021, 12, 4723.	12.8	17
40	RNA modifications stabilize the tertiary structure of tRNAfMet by locally increasing conformational dynamics. Nucleic Acids Research, 2022, 50, 2334-2349.	14.5	16
41	Quantitative 2D and 3D Î“-HCP Experiments for the Determination of the Angles Î± and Î¶ in the Phosphodiester Backbone of Oligonucleotides. Journal of the American Chemical Society, 2010, 132, 10318-10329.	13.7	14
42	1H, 13C, and 15N backbone chemical shift assignments of the apo and the ADP-ribose bound forms of the macrodomain of SARS-CoV-2 non-structural protein 3b. Biomolecular NMR Assignments, 2020, 14, 339-346.	0.8	14
43	Study of E. coli Hfqâ€™s RNA annealing acceleration and duplex destabilization activities using substrates with different GC-contents. Nucleic Acids Research, 2013, 41, 487-497.	14.5	13
44	Novel ¹³Câ€detected NMR Experiments for the Precise Detection of RNA Structure. Angewandte Chemie - International Edition, 2019, 58, 9140-9144.	13.8	13
45	Time-Resolved NMR Spectroscopy: Ligand-Induced Refolding of Riboswitches. Methods in Molecular Biology, 2009, 540, 161-171.	0.9	12
46	Mechanisms of StpA-mediated RNA remodeling. RNA Biology, 2010, 7, 735-743.	3.1	11
47	Direct 13C-detected NMR experiments for mapping and characterization of hydrogen bonds in RNA. Journal of Biomolecular NMR, 2016, 64, 207-221.	2.8	11
48	Impact of spin label rigidity on extent and accuracy of distance information from PRE data. Journal of Biomolecular NMR, 2017, 68, 53-63.	2.8	11
49	Conformational switch in the ribosomal protein S1 guides unfolding of structured RNAs for translation initiation. Nucleic Acids Research, 2018, 46, 10917-10929.	14.5	11
50	Refolding through a Linear Transition State Enables Fast Temperature Adaptation of a Translational Riboswitch. Biochemistry, 2020, 59, 1081-1086.	2.5	11
51	Folding Kinetics for the Conformational Switch between Alternative RNA Structures. Journal of Physical Chemistry B, 2010, 114, 13609-13615.	2.6	10
52	Evaluation of 15N-detected Hâ€“N correlation experiments on increasingly large RNAs. Journal of Biomolecular NMR, 2017, 69, 31-44.	2.8	10
53	NMR Spectroscopy of Large Functional RNAs: From Sample Preparation to Lowâ€Gamma Detection. Current Protocols in Nucleic Acid Chemistry, 2020, 82, e116.	0.5	9
54	Determination of the Conformation of the 2â€²OH Group in RNA by NMR Spectroscopy and DFT Calculations. Angewandte Chemie - International Edition, 2011, 50, 5397-5400.	13.8	8

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55	Functional Dynamics of RNA Ribozymes Studied by NMR Spectroscopy. Methods in Molecular Biology, 2012, 848, 185-199.	0.9	8
56	Influence of Arrestin on the Photodecay of Bovine Rhodopsin. Angewandte Chemie - International Edition, 2015, 54, 13555-13560.	13.8	8
57	Combined smFRET and NMR analysis of riboswitch structural dynamics. Methods, 2019, 153, 22-34.	3.8	8
58	1H, 13C, and 15N backbone chemical shift assignments of the nucleic acid-binding domain of SARS-CoV-2 non-structural protein 3e. Biomolecular NMR Assignments, 2020, 14, 329-333.	0.8	7
59	1H, 13C and 15N chemical shift assignment of the stem-loop 5a from the 5â€²-UTR of SARS-CoV-2. Biomolecular NMR Assignments, 2021, 15, 203-211.	0.8	7
60	1H, 13C, 15N and 31P chemical shift assignment for stem-loop 4 from the 5â€²-UTR of SARS-CoV-2. Biomolecular NMR Assignments, 2021, 15, 335-340.	0.8	7
61	Binding of 30S Ribosome Induces Single-stranded Conformation Within and Downstream of the Expression Platform in a Translational Riboswitch. Journal of Molecular Biology, 2022, 434, 167668.	4.2	7
62	The cotranscriptional folding landscape for two cyclic di-nucleotide-sensing riboswitches with highly homologous aptamer domains acting either as ON- or OFF-switches. Nucleic Acids Research, 2022, 50, 6639-6655.	14.5	7
63	Dynamics of Bacteriorhodopsin in the Darkâ€Adapted State from Solution Nuclear Magnetic Resonance Spectroscopy. Angewandte Chemie - International Edition, 2020, 59, 20965-20972.	13.8	6
64	1H, 13C, and 15N backbone chemical shift assignments of coronavirus-2 non-structural protein Nsp10. Biomolecular NMR Assignments, 2021, 15, 65-71.	0.8	6
65	NMR resonance assignments for the GTP-binding RNA aptamer 9-12 in complex with GTP. Biomolecular NMR Assignments, 2019, 13, 281-286.	0.8	5
66	NMR structure of the Vibrio vulnificus ribosomal protein S1 domains D3 and D4 provides insights into molecular recognition of single-stranded RNAs. Nucleic Acids Research, 2021, 49, 7753-7764.	14.5	5
67	Exploring the Druggability of Conserved RNA Regulatory Elements in the SARSâ€CoVâ€2 Genome. Angewandte Chemie, 2021, 133, 19340-19349.	2.0	5
68	The RNA chaperone StpA enables fast RNA refolding by destabilization of mutually exclusive base pairs within competing secondary structure elements. Nucleic Acids Research, 2021, 49, 11337-11349.	14.5	5
69	Real-time nuclear magnetic resonance spectroscopy in the study of biomolecular kinetics and dynamics. Magnetic Resonance, 2021, 2, 291-320.	1.9	4
70	1H, 13C and 15N assignment of stem-loop SL1 from the 5'-UTR of SARS-CoV-2. Biomolecular NMR Assignments, 2021, 15, 467-474.	0.8	4
71	Nonequilibrium NMR Methods for Monitoring Protein and RNA Folding. Zeitschrift Fur Physikalische Chemie, 2011, 225, 611-636.	2.8	2
72	RNA Refolding Studied by Light-Coupled NMR Spectroscopy. Methods in Molecular Biology, 2014, 1086, 309-319.	0.9	2

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73	Novel 13 Câ€detected NMR Experiments for the Precise Detection of RNA Structure. Angewandte Chemie, 2019, 131, 9238-9242.	2.0	1
74	Dynamics of Bacteriorhodopsin in the Darkâ€Adapted State from Solution Nuclear Magnetic Resonance Spectroscopy. Angewandte Chemie, 2020, 132, 21151-21158.	2.0	1
75	Characterization of Conformational Dynamics of Bistable RNA by Equilibrium and Nonâ€Equilibrium NMR. Current Protocols in Nucleic Acid Chemistry, 2013, 55, 11.13.1-16.	0.5	0
76	Quantitative modeling of the function of kinetically driven transcriptional riboswitches. Journal of Theoretical Biology, 2020, 506, 110406.	1.7	0
77	Frontispiece: More than Proton Detectionâ€”New Avenues for NMR Spectroscopy of RNA. Chemistry - A European Journal, 2020, 26, .	3.3	0
78	1H, 13C and 15N chemical shift assignment of the stem-loops 5bâ€‰+â€‰c from the 5â€²-UTR of SARS-CoV-2. Biomolecular NMR Assignments, 2022, , 1.	0.8	0
79	NMR assignment of non-modified tRNAIle from Escherichia coli. Biomolecular NMR Assignments, 2022, , 1.	0.8	0