Claudia Hbartner

List of Publications by Citations

107 papers	4,175 citations	33 h-index	63 g-index
123 ext. papers	5,176 ext. citations	10.6 avg, IF	5.97 L-index

#	Paper	IF	Citations
107	Structural basis for discriminative regulation of gene expression by adenine- and guanine-sensing mRNAs. *Chemistry and Biology*, **2004**, 11, 1729-41		448
106	Human METTL16 is a -methyladenosine (mA) methyltransferase that targets pre-mRNAs and various non-coding RNAs. *EMBO Reports*, **2017**, 18, 2004-2014	6.5	276
105	Multimodal optical sensing and analyte specificity using single-walled carbon nanotubes. *Nature Nanotechnology*, **2009**, 4, 114-20	28.7	255
104	Structural basis for Diels-Alder ribozyme-catalyzed carbon-carbon bond formation. *Nature Structural and Molecular Biology*, **2005**, 12, 218-24	17.6	171
103	Mechanism of SARS-CoV-2 polymerase stalling by remdesivir. *Nature Communications*, **2021**, 12, 279	17.4	171
102	NSUN3 and ABH1 modify the wobble position of mt-tRNAMet to expand codon recognition in mitochondrial translation. *EMBO Journal*, **2016**, 35, 2104-2119	13	137
101	Eukaryotic 5-methylcytosine (m□) RNA Methyltransferases: Mechanisms, Cellular Functions, and Links to Disease. *Genes*, **2019**, 10,	4.2	135
100	Mechanism of molnupiravir-induced SARS-CoV-2 mutagenesis. *Nature Structural and Molecular Biology*, **2021**, 28, 740-746	17.6	108
99	The mA reader protein YTHDC2 interacts with the small ribosomal subunit and the 5Ŧ3T exoribonuclease XRN1. *Rna*, **2018**, 24, 1339-1350	5.8	105
98	NSUN6 is a human RNA methyltransferase that catalyzes formation of m5C72 in specific tRNAs. *Rna* , **2015**, 21, 1532-43	5.8	102
97	Crystal structure of a DNA catalyst. *Nature*, **2016**, 529, 231-4	50.4	95
96	Chemical synthesis of selenium-modified oligoribonucleotides and their enzymatic ligation leading to an U6 SnRNA stem-loop segment. *Journal of the American Chemical Society*, **2004**, 126, 1141-9	16.4	93
95	Syntheses of RNAs with up to 100 nucleotides containing site-specific 2Ŧmethylseleno labels for use in X-ray crystallography. *Journal of the American Chemical Society*, **2005**, 127, 12035-45	16.4	91
94	DNA-catalyzed formation of nucleopeptide linkages. *Angewandte Chemie - International Edition*, **2008**, 47, 1753-7	16.4	83
93	Probing secondary structures of spin-labeled RNA by pulsed EPR spectroscopy. *Angewandte Chemie - International Edition*, **2010**, 49, 6443-7	16.4	81
92	Modulation of RNA tertiary folding by incorporation of caged nucleotides. *Angewandte Chemie - International Edition*, **2005**, 44, 7305-9	16.4	74
91	Chemical RNA modifications for studies of RNA structure and dynamics. *ChemBioChem*, **2010**, 11, 469-803.8		72

90	Methylation of the nucleobases in RNA oligonucleotides mediates duplex-hairpin conversion. *Nucleic Acids Research*, **2001**, 29, 3997-4005	20.1	71
89	Bistable secondary structures of small RNAs and their structural probing by comparative imino proton NMR spectroscopy. *Journal of Molecular Biology*, **2003**, 325, 421-31	6.5	67
88	Recent advances in DNA catalysis. *Biopolymers*, **2007**, 87, 279-92	2.2	65
87	Synthesis of spin-labeled riboswitch RNAs using convertible nucleosides and DNA-catalyzed RNA ligation. *Bioorganic and Medicinal Chemistry*, **2013**, 21, 6171-80	3.4	60
86	Site-specific labeling of RNA at internal ribose hydroxyl groups: terbium-assisted deoxyribozymes at work. *Journal of the American Chemical Society*, **2014**, 136, 8131-7	16.4	59
85	Synthesis and characterization of RNA containing a rigid and nonperturbing cytidine-derived spin label. *Journal of Organic Chemistry*, **2012**, 77, 7749-54	4.2	53
84	Orientation selection in distance measurements between nitroxide spin labels at 94 GHz EPR with variable dual frequency irradiation. *Physical Chemistry Chemical Physics*, **2013**, 15, 3433-7	3.6	53
83	Fluorogenic Labeling of 5-Formylpyrimidine Nucleotides in DNA and RNA. *Angewandte Chemie - International Edition*, **2016**, 55, 1912-6	16.4	50
82	On secondary structure rearrangements and equilibria of small RNAs. *ChemBioChem*, **2003**, 4, 984-90	3.8	48
81	A Mini-Twister Variant and Impact of Residues/Cations on the Phosphodiester Cleavage of this Ribozyme Class. *Angewandte Chemie - International Edition*, **2015**, 54, 15128-15133	16.4	47
80	The G-patch protein Spp2 couples the spliceosome-stimulated ATPase activity of the DEAH-box protein Prp2 to catalytic activation of the spliceosome. *Genes and Development*, **2015**, 29, 94-107	12.6	45
79	Fundamental studies of functional nucleic acids: aptamers, riboswitches, ribozymes and DNAzymes. *Chemical Society Reviews*, **2020**, 49, 7331-7353	58.5	44
78	The Synthesis of 2?-O-[(Triisopropylsilyl)oxy] methyl (TOM) Phosphoramidites of Methylated Ribonucleosides (m 1 G, m 2 G, m 2 2 G, m 1 I, m 3 U, m 4 C, m 6 A, m 6 2 A) for Use in Automated RNA Solid-Phase Synthesis. *Monatshefte F□ Chemie*, **2003**, 134, 851-873	1.4	43
77	High-resolution measurement of long-range distances in RNA: pulse EPR spectroscopy with TEMPO-labeled nucleotides. *Chemical Science*, **2016**, 7, 3172-3180	9.4	41
76	Triggering of RNA secondary structures by a functionalized nucleobase. *Angewandte Chemie - International Edition*, **2004**, 43, 3922-5	16.4	40
75	Control of membrane gaps by synaptotagmin-Ca2+ measured with a novel membrane distance ruler. *Nature Communications*, **2014**, 5, 5859	17.4	34
74	Aptamers provide superior stainings of cellular receptors studied under super-resolution microscopy. *PLoS ONE*, **2017**, 12, e0173050	3.7	32
73	A dual-mode microwave resonator for double electron-electron spin resonance spectroscopy at W-band microwave frequencies. *Journal of Magnetic Resonance*, **2011**, 209, 341-6	3	30

72	Combinatorial mutation interference analysis reveals functional nucleotides required for DNA catalysis. *Angewandte Chemie - International Edition*, **2010**, 49, 8504-8	16.4	29
71	Probing essential nucleobase functional groups in aptamers and deoxyribozymes by nucleotide analogue interference mapping of DNA. *Journal of the American Chemical Society*, **2011**, 133, 14888-91	16.4	28
70	One pot synthesis of Cu(II) 2,2′-bipyridyl complexes of 5-hydroxy-hydurilic acid and alloxanic acid: synthesis, crystal structure, chemical nuclease activity and cytotoxicity. *Journal of Inorganic Biochemistry*, **2011**, 105, 256-67	4.2	28
69	RNA Two-State Conformation Equilibria and the Effect of Nucleobase Methylation. *Angewandte Chemie - International Edition*, **2002**, 41, 605-609	16.4	28
68	Lanthanide cofactors accelerate DNA-catalyzed synthesis of branched RNA. *Journal of the American Chemical Society*, **2013**, 135, 12839-48	16.4	26
67	Synthesis, gene silencing, and molecular modeling studies of 4′-C-aminomethyl-2′-O-methyl modified small interfering RNAs. *Journal of Organic Chemistry*, **2012**, 77, 3233-45	4.2	26
66	Modulation of RNA Tertiary Folding by Incorporation of Caged Nucleotides. *Angewandte Chemie*, **2005**, 117, 7471-7475	3.6	26
65	Efficiency and precision of microRNA biogenesis modes in plants. *Nucleic Acids Research*, **2018**, 46, 10709-10723	20.1	26
64	Direct Selection of -Acting Ribozymes for Posttranscriptional, Site-Specific, and Covalent Fluorescent Labeling of RNA. *Journal of the American Chemical Society*, **2019**, 141, 19546-19549	16.4	25
63	N -Methyladenosine-Sensitive RNA-Cleaving Deoxyribozymes. *Angewandte Chemie - International Edition*, **2018**, 57, 15117-15121	16.4	25
62	A Multicolor Large Stokes Shift Fluorogen-Activating RNA Aptamer with Cationic Chromophores. *Chemistry - A European Journal*, **2019**, 25, 1931-1935	4.8	24
61	Engineering a selective small-molecule substrate binding site into a deoxyribozyme. *Angewandte Chemie - International Edition*, **2007**, 46, 7420-4	16.4	22
60	Sekundärstrukturanalyse von spinmarkierter RNA mit Puls-EPR-Spektroskopie. *Angewandte Chemie* , **2010**, 122, 6588-6592	3.6	21
59	Site-selective depurination by a periodate-dependent deoxyribozyme. *Chemical Communications*, **2007**, 2255-7	5.8	21
58	Novel Fluoride-Labile Nucleobase-Protecting Groups for the Synthesis of 3?(2?)-O-Aminoacylated RNA Sequences. *Helvetica Chimica Acta*, **2000**, 83, 2477-2503	2	21
57	Machine learning of reverse transcription signatures of variegated polymerases allows mapping and discrimination of methylated purines in limited transcriptomes. *Nucleic Acids Research*, **2020**, 48, 3734-3746	20.1	20
56	DNA-Catalyzed Formation of Nucleopeptide Linkages. *Angewandte Chemie*, **2008**, 120, 1777-1781	3.6	19
55	Repurposing Antiviral Drugs for Orthogonal RNA-Catalyzed Labeling of RNA. *Angewandte Chemie - International Edition*, **2020**, 59, 9335-9339	16.4	18

54	Site-specific RNA methylation by a methyltransferase ribozyme. *Nature*, **2020**, 587, 663-667	50.4	18
53	Chemoselective labeling and site-specific mapping of 5-formylcytosine as a cellular nucleic acid modification. *FEBS Letters*, **2018**, 592, 2032-2047	3.8	17
52	Yeast Prp2 liberates the 5Tsplice site and the branch site adenosine for catalysis of pre-mRNA splicing. *Rna*, **2017**, 23, 1770-1779	5.8	17
51	Enzymatic ligation strategies for the preparation of purine riboswitches with site-specific chemical modifications. *Methods in Molecular Biology*, **2009**, 540, 15-24	1.4	17
50	Substrate-assisted mechanism of RNP disruption by the spliceosomal Brr2 RNA helicase. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 7798-803	11.5	15
49	Measurement of Angstrom to Nanometer Molecular Distances with F Nuclear Spins by EPR/ENDOR Spectroscopy. *Angewandte Chemie - International Edition*, **2020**, 59, 373-379	16.4	15
48	Synthesis and properties of DNA oligonucleotides with a zwitterionic backbone structure. *Chemical Communications*, **2014**, 50, 13742-5	5.8	13
47	Triggering of RNA Secondary Structures by a Functionalized Nucleobase. *Angewandte Chemie*, **2004** , 116, 4012-4015	3.6	13
46	Translation of non-standard codon nucleotides reveals minimal requirements for codon-anticodon interactions. *Nature Communications*, **2018**, 9, 4865	17.4	13
45	Supramolecular Fluorescence Resonance Energy Transfer in Nucleobase-Modified Fluorogenic RNA Aptamers. *Angewandte Chemie - International Edition*, **2020**, 59, 6760-6764	16.4	12
44	High-frequency 263 GHz PELDOR. *Applied Magnetic Resonance*, **2014**, 45, 969-979	0.8	12
43	Enzymatic labeling of 5-hydroxymethylcytosine in DNA. *Angewandte Chemie - International Edition*, **2011**, 50, 4268-70	16.4	12
42	RNA-Konformationsgleichgewichte und der Einfluss der Methylierung von Nucleobasen auf die Gleichgewichtslage. *Angewandte Chemie*, **2002**, 114, 619-623	3.6	12
41	NOseq: amplicon sequencing evaluation method for RNA m6A sites after chemical deamination. *Nucleic Acids Research*, **2021**, 49, e23	20.1	12
40	Fluorogene Markierung von 5-Formylpyrimidin-Nucleotiden in DNA und RNA. *Angewandte Chemie*, **2016**, 128, 1946-1950	3.6	11
39	Deoxyribozyme-mediated ligation for incorporating EPR spin labels and reporter groups into RNA. *Methods in Enzymology*, **2014**, 549, 85-104	1.7	11
38	Debranchase-resistant labeling of RNA using the 10DM24 deoxyribozyme and fluorescent modified nucleotides. *Chemical Communications*, **2017**, 53, 11992-11995	5.8	10
37	Incorporation of 4′C-aminomethyl-2′O-methylthymidine into DNA by thermophilic DNA polymerases. *Chemical Communications*, **2012**, 48, 9619-21	5.8	9

36	Combinatorial nucleoside-deletion-scanning mutagenesis of functional DNA. *Angewandte Chemie - International Edition*, **2013**, 52, 2995-9	16.4	9
35	Repurposing Antiviral Drugs for Orthogonal RNA-Catalyzed Labeling of RNA. *Angewandte Chemie*, **2020**, 132, 9421-9425	3.6	8
34	NAA-modified DNA oligonucleotides with zwitterionic backbones: stereoselective synthesis of A-T phosphoramidite building blocks. *Beilstein Journal of Organic Chemistry*, **2015**, 11, 50-60	2.5	8
33	Kombinatorische Mutationsinterferenz-Analyse zur Untersuchung funktioneller Nucleotide in Desoxyribozymen. *Angewandte Chemie*, **2010**, 122, 8682-8687	3.6	8
32	N6-Methyladenosine-Sensitive RNA-Cleaving Deoxyribozymes. *Angewandte Chemie*, **2018**, 130, 15337-15341	3.6	8
31	Engineering a Selective Small-Molecule Substrate Binding Site into a Deoxyribozyme. *Angewandte Chemie*, **2007**, 119, 7564-7568	3.6	7
30	Mg2+-dependent conformational changes and product release during DNA-catalyzed RNA ligation monitored by Bimane fluorescence. *Nucleic Acids Research*, **2015**, 43, 40-50	20.1	6
29	N -Isopentenyladenosine in RNA Determines the Cleavage Site of Endonuclease Deoxyribozymes. *Angewandte Chemie - International Edition*, **2020**, 59, 18627-18631	16.4	6
28	Functional Hallmarks of a Catalytic DNA that Makes Lariat RNA. *Chemistry - A European Journal*, **2016**, 22, 3720-8	4.8	6
27	Preparation of 2′-deoxy-2′-methylseleno-modified phosphoramidites and RNA. *Current Protocols in Nucleic Acid Chemistry*, **2007**, Chapter 1, Unit 1.15	0.5	5
26	RNA-Cleaving Deoxyribozymes Differentiate Methylated Cytidine Isomers in RNA. *Angewandte Chemie - International Edition*, **2021**, 60, 19058-19062	16.4	5
25	Structure-fluorescence activation relationships of a large Stokes shift fluorogenic RNA aptamer. *Nucleic Acids Research*, **2019**, 47, 11538-11550	20.1	5
24	Chemical Synthesis of Modified RNA1-37		5
23	Mechanism of molnupiravir-induced SARS-CoV-2 mutagenesis		4
22	Large Stokes shift fluorescence activation in an RNA aptamer by intermolecular proton transfer to guanine. *Nature Communications*, **2021**, 12, 3549	17.4	4
21	Enzymatic combinatorial nucleoside deletion scanning mutagenesis of functional RNA. *Chemical Communications*, **2014**, 50, 10937-40	5.8	3
20	N6-Isopentenyladenosine in RNA Determines the Cleavage Site of Endonuclease Deoxyribozymes. *Angewandte Chemie*, **2020**, 132, 18786-18790	3.6	3
19	New Deoxyribozymes for the Native Ligation of RNA. *Molecules*, **2020**, 25,	4.8	3

18	In Vitro Assays for RNA Methyltransferase Activity. *Methods in Molecular Biology*, **2017**, 1562, 259-268	1.4	2
17	Synthesis of a norcantharidin-tethered guanosine: Protein phosphatase-1 inhibitors that change alternative splicing. *Bioorganic and Medicinal Chemistry Letters*, **2016**, 26, 965-968	2.9	1
16	Mutationsanalyse funktionaler DNA durch statistische Nucleosiddeletion. *Angewandte Chemie*, **2013**, 125, 3069-3073	3.6	1
15	On Secondary Structure Rearrangements and Equilibria of Small RNAs. *ChemBioChem*, **2003**, 4, 1263-1268	3.8	1
14	Staining of Membrane Receptors with Fluorescently-labeled DNA Aptamers for Super-resolution Imaging. *Bio-protocol*, **2017**, 7, e2541	0.9	1
13	RNA-Cleaving DNA Enzymes and Their Potential Therapeutic Applications as Antibacterial and Antiviral Agents **2012**, 371-410		1
12	Structure and mechanism of the methyltransferase ribozyme MTR1.. *Nature Chemical Biology*, **2022**,	11.7	1
11	Chemical Synthesis of RNA **2012**, 154-162		0
10	The RNA methyltransferase METTL8 installs mC in mitochondrial tRNAs to optimise tRNA structure and mitochondrial translation.. *Nature Communications*, **2022**, 13, 209	17.4	0
9	Measurement of Angstrom to Nanometer Molecular Distances with 19F Nuclear Spins by EPR/ENDOR Spectroscopy. *Angewandte Chemie*, **2020**, 132, 381-387	3.6	0
8	RNA-Cleaving Deoxyribozymes Differentiate Methylated Cytidine Isomers in RNA. *Angewandte Chemie*, **2021**, 133, 19206-19210	3.6	0
7	Strategies for Characterization of Enzymatic Nucleic Acids. *Advances in Biochemical Engineering/Biotechnology*, **2020**, 170, 37-58	1.7	
6	Equilibria of RNA Secondary Structures **2004**, 1-17		
5	Supramolecular Fluorescence Resonance Energy Transfer in Nucleobase-Modified Fluorogenic RNA Aptamers. *Angewandte Chemie*, **2020**, 132, 6826-6830	3.6	
4	DNA Catalysts for Synthetic Applications in Biomolecular Chemistry127-155		
3	Titelbild: N6-Methyladenosine-Sensitive RNA-Cleaving Deoxyribozymes (Angew. Chem. 46/2018). *Angewandte Chemie*, **2018**, 130, 15165-15165	3.6	
2	Nucleic Acid-Catalyzed RNA Ligation and Labeling **2021**, 557-570		
1	In Vitro Selection of Deoxyribozymes for the Detection of RNA Modifications. *Methods in Molecular Biology*, **2022**, 167-179	1.4	