Claudia HÃ¶bartner

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/4572999/publications.pdf

Version: 2024-02-01

101	6,071	101543	76900
papers	citations	36 h-index	74 g-index

123	123	123	6102
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Structural Basis for Discriminative Regulation of Gene Expression by Adenine- and Guanine-Sensing mRNAs. Chemistry and Biology, 2004, 11, 1729-1741.	6.0	505
2	Human METTL16 is a N ⁶ â€methyladenosine (m ⁶ A) methyltransferase that targets preâ€mRNAs and various nonâ€coding RNAs. EMBO Reports, 2017, 18, 2004-2014.	4.5	481
3	Mechanism of molnupiravir-induced SARS-CoV-2 mutagenesis. Nature Structural and Molecular Biology, 2021, 28, 740-746.	8.2	450
4	Mechanism of SARS-CoV-2 polymerase stalling by remdesivir. Nature Communications, 2021, 12, 279.	12.8	412
5	Eukaryotic 5-methylcytosine (m5C) RNA Methyltransferases: Mechanisms, Cellular Functions, and Links to Disease. Genes, 2019, 10, 102.	2.4	291
6	Multimodal optical sensing and analyte specificity using single-walled carbon nanotubes. Nature Nanotechnology, 2009, 4, 114-120.	31.5	284
7	<scp>NSUN</scp> 3 and <scp>ABH</scp> 1 modify the wobble position of mtâ€t <scp>RNA</scp> ^{Met} to expand codon recognition in mitochondrial translation. EMBO Journal, 2016, 35, 2104-2119.	7.8	197
8	Structural basis for Diels-Alder ribozyme-catalyzed carbon-carbon bond formation. Nature Structural and Molecular Biology, 2005, 12, 218-224.	8.2	183
9	The m⁶A reader protein YTHDC2 interacts with the small ribosomal subunit and the 5â€²â€“3â€² exoribonuclease XRN1. Rna, 2018, 24, 1339-1350.	3.5	171
10	NSUN6 is a human RNA methyltransferase that catalyzes formation of m⁵C72 in specific tRNAs. Rna, 2015, 21, 1532-1543.	3.5	144
11	Fundamental studies of functional nucleic acids: aptamers, riboswitches, ribozymes and DNAzymes. Chemical Society Reviews, 2020, 49, 7331-7353.	38.1	130
12	Crystal structure of a DNA catalyst. Nature, 2016, 529, 231-234.	27.8	126
13	Syntheses of RNAs with up to 100 Nucleotides Containing Site-Specific 2â€˜-Methylseleno Labels for Use in X-ray Crystallography. Journal of the American Chemical Society, 2005, 127, 12035-12045.	13.7	98
14	Chemical Synthesis of Selenium-Modified Oligoribonucleotides and Their Enzymatic Ligation Leading to an U6 SnRNA Stemâ€™Loop Segment. Journal of the American Chemical Society, 2004, 126, 1141-1149.	13.7	96
15	DNAâ€Catalyzed Formation of Nucleopeptide Linkages. Angewandte Chemie - International Edition, 2008, 47, 1753-1757.	13.8	88
16	Probing Secondary Structures of Spinâ€Labeled RNA by Pulsed EPR Spectroscopy. Angewandte Chemie - International Edition, 2010, 49, 6443-6447.	13.8	88
17	Chemical RNA Modifications for Studies of RNA Structure and Dynamics. ChemBioChem, 2010, 11, 469-480.	2.6	83
18	Methylation of the nucleobases in RNA oligonucleotides mediates duplexâ€“hairpin conversion. Nucleic Acids Research, 2001, 29, 3997-4005.	14.5	81

#	Article	IF	Citations
19	Modulation of RNA Tertiary Folding by Incorporation of Caged Nucleotides. Angewandte Chemie - International Edition, 2005, 44, 7305-7309.	13.8	76
20	Bistable Secondary Structures of Small RNAs and Their Structural Probing by Comparative Imino Proton NMR Spectroscopy. Journal of Molecular Biology, 2003, 325, 421-431.	4.2	73
21	Recent advances in DNA catalysis. Biopolymers, 2007, 87, 279-292.	2.4	72
22	Site-Specific Labeling of RNA at Internal Ribose Hydroxyl Groups: Terbium-Assisted Deoxyribozymes at Work. Journal of the American Chemical Society, 2014, 136, 8131-8137.	13.7	69
23	Synthesis of spin-labeled riboswitch RNAs using convertible nucleosides and DNA-catalyzed RNA ligation. Bioorganic and Medicinal Chemistry, 2013, 21, 6171-6180.	3.0	65
24	Fluorogenic Labeling of 5â€Formylpyrimidine Nucleotides in DNA and RNA. Angewandte Chemie - International Edition, 2016, 55, 1912-1916.	13.8	65
25	Synthesis and Characterization of RNA Containing a Rigid and Nonperturbing Cytidine-Derived Spin Label. Journal of Organic Chemistry, 2012, 77, 7749-7754.	3.2	61
26	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.	5.9	59
27	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.	2.8	58
28	On Secondary Structure Rearrangements and Equilibria of Small RNAs. ChemBioChem, 2003, 4, 984-990.	2.6	56
29	A Miniâ€Twister Variant and Impact of Residues/Cations on the Phosphodiester Cleavage of this Ribozyme Class. Angewandte Chemie - International Edition, 2015, 54, 15128-15133.	13.8	51
30	High-resolution measurement of long-range distances in RNA: pulse EPR spectroscopy with TEMPO-labeled nucleotides. Chemical Science, 2016, 7, 3172-3180.	7.4	49
31	Site-specific RNA methylation by a methyltransferase ribozyme. Nature, 2020, 587, 663-667.	27.8	49
32	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 FÃ¼r Chemie, 2003, 134, 851-873.	1.8	48
33	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.	14.5	45
34	A Multicolor Large Stokes Shift Fluorogenâ€Activating RNA Aptamer with Cationic Chromophores. Chemistry - A European Journal, 2019, 25, 1931-1935.	3.3	44
35	Triggering of RNA Secondary Structures by a Functionalized Nucleobase. Angewandte Chemie - International Edition, 2004, 43, 3922-3925.	13.8	42
36	Control of membrane gaps by synaptotagmin-Ca2+ measured with a novel membrane distance ruler. Nature Communications, 2014, 5, 5859.	12.8	42

#	Article	IF	Citations
37	Aptamers provide superior stainings of cellular receptors studied under super-resolution microscopy. PLoS ONE, 2017, 12, e0173050.	2.5	40
38	N⁶â€Methyladenosineâ€Sensitive RNAâ€Cleaving Deoxyribozymes. Angewandte Chemie - International Edition, 2018, 57, 15117-15121.	13.8	39
39	Efficiency and precision of microRNA biogenesis modes in plants. Nucleic Acids Research, 2018, 46, 10709-10723.	14.5	37
40	Direct in Vitro Selection of Trans-Acting Ribozymes for Posttranscriptional, Site-Specific, and Covalent Fluorescent Labeling of RNA. Journal of the American Chemical Society, 2019, 141, 19546-19549.	13.7	37
41	Synthesis, Gene Silencing, and Molecular Modeling Studies of 4â€²-C-Aminomethyl-2â€²-O-methyl Modified Small Interfering RNAs. Journal of Organic Chemistry, 2012, 77, 3233-3245.	3.2	35
42	RNA Two-State Conformation Equilibria and the Effect of Nucleobase Methylation. Angewandte Chemie - International Edition, 2002, 41, 605-609.	13.8	33
43	Translation of non-standard codon nucleotides reveals minimal requirements for codon-anticodon interactions. Nature Communications, 2018, 9, 4865.	12.8	33
44	A dual-mode microwave resonator for double electronâ€“electron spin resonance spectroscopy at W-band microwave frequencies. Journal of Magnetic Resonance, 2011, 209, 341-346.	2.1	32
45	Measurement of Angstrom to Nanometer Molecular Distances with ¹⁹F Nuclear Spins by EPR/ENDOR Spectroscopy. Angewandte Chemie - International Edition, 2020, 59, 373-379.	13.8	32
46	Combinatorial Mutation Interference Analysis Reveals Functional Nucleotides Required for DNA Catalysis. Angewandte Chemie - International Edition, 2010, 49, 8504-8508.	13.8	30
47	Probing Essential Nucleobase Functional Groups in Aptamers and Deoxyribozymes by Nucleotide Analogue Interference Mapping of DNA. Journal of the American Chemical Society, 2011, 133, 14888-14891.	13.7	30
48	One pot synthesis of Cu(II) 2,2â€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, 256-267.	3.5	30
49	Novel Fluoride-Labile Nucleobase-Protecting Groups for the Synthesis of 3â€²(2â€²)-O-Aminoacylated RNA Sequences. Helvetica Chimica Acta, 2000, 83, 2477-2503.	1.6	27
50	Lanthanide Cofactors Accelerate DNA-Catalyzed Synthesis of Branched RNA. Journal of the American Chemical Society, 2013, 135, 12839-12848.	13.7	27
51	Repurposing Antiviral Drugs for Orthogonal RNAâ€Catalyzed Labeling of RNA. Angewandte Chemie - International Edition, 2020, 59, 9335-9339.	13.8	27
52	Yeast Prp2 liberates the 5â€² splice site and the branch site adenosine for catalysis of pre-mRNA splicing. Rna, 2017, 23, 1770-1779.	3.5	26
53	Large Stokes shift fluorescence activation in an RNA aptamer by intermolecular proton transfer to guanine. Nature Communications, 2021, 12, 3549.	12.8	26
54	NOseq: amplicon sequencing evaluation method for RNA m6A sites after chemical deamination. Nucleic Acids Research, 2021, 49, e23-e23.	14.5	25

#	Article	IF	Citations
55	Engineering a Selective Smallâ€Molecule Substrate Binding Site into a Deoxyribozyme. Angewandte Chemie - International Edition, 2007, 46, 7420-7424.	13.8	24
56	Chemoselective labeling and siteâ€specific mapping of 5â€formylcytosine as a cellular nucleic acid modification. FEBS Letters, 2018, 592, 2032-2047.	2.8	23
57	Site-selective depurination by a periodate-dependent deoxyribozyme. Chemical Communications, 2007, , 2255-2257.	4.1	22
58	Supramolecular Fluorescence Resonance Energy Transfer in Nucleobaseâ€Modified Fluorogenic RNA Aptamers. Angewandte Chemie - International Edition, 2020, 59, 6760-6764.	13.8	22
59	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, 7798-7803.	7.1	21
60	The RNA methyltransferase METTL8 installs m3C32 in mitochondrial tRNAsThr/Ser(UCN) to optimise tRNA structure and mitochondrial translation. Nature Communications, 2022, 13, 209.	12.8	19
61	Tuning Exciton Coupling of Merocyanine Nucleoside Dimers by RNA, DNA and GNA Double Helix Conformations. Angewandte Chemie - International Edition, 2022, 61, .	13.8	18
62	Enzymatic Ligation Strategies for the Preparation of Purine Riboswitches with Site-Specific Chemical Modifications. Methods in Molecular Biology, 2009, 540, 15-24.	0.9	17
63	Enzymatic Labeling of 5â€Hydroxymethylcytosine in DNA. Angewandte Chemie - International Edition, 2011, 50, 4268-4270.	13.8	16
64	N⁶â€Isopentenyladenosine in RNA Determines the Cleavage Site of Endonuclease Deoxyribozymes. Angewandte Chemie - International Edition, 2020, 59, 18627-18631.	13.8	16
65	Structure and mechanism of the methyltransferase ribozyme MTR1. Nature Chemical Biology, 2022, 18, 547-555.	8.0	16
66	Fluorogene Markierung von 5â€Formylpyrimidinâ€Nucleotiden in DNA und RNA. Angewandte Chemie, 2016, 128, 1946-1950.	2.0	15
67	High-frequency 263ÂGHz PELDOR. Applied Magnetic Resonance, 2014, 45, 969-979.	1.2	14
68	Synthesis and properties of DNA oligonucleotides with a zwitterionic backbone structure. Chemical Communications, 2014, 50, 13742-13745.	4.1	14
69	Mg2+-dependent conformational changes and product release during DNA-catalyzed RNA ligation monitored by Bimane fluorescence. Nucleic Acids Research, 2015, 43, 40-50.	14.5	14
70	Combinatorial Nucleosideâ€Deletionâ€Scanning Mutagenesis of Functional DNA. Angewandte Chemie - International Edition, 2013, 52, 2995-2999.	13.8	13
71	RNAâ€Cleaving Deoxyribozymes Differentiate Methylated Cytidine Isomers in RNA. Angewandte Chemie - International Edition, 2021, 60, 19058-19062.	13.8	13
72	Debranchase-resistant labeling of RNA using the 10DM24 deoxyribozyme and fluorescent modified nucleotides. Chemical Communications, 2017, 53, 11992-11995.	4.1	12

#	Article	IF	Citations
73	Deoxyribozyme-Mediated Ligation for Incorporating EPR Spin Labels and Reporter Groups into RNA. Methods in Enzymology, 2014, 549, 85-104.	1.0	11
74	N 6 â€Methyladenosineâ€Sensitive RNAâ€Cleaving Deoxyribozymes. Angewandte Chemie, 2018, 130, 15337-15341.	2.0	11
75	Structureâ€“fluorescence activation relationships of a large Stokes shift fluorogenic RNA aptamer. Nucleic Acids Research, 2019, 47, 11538-11550.	14.5	11
76	Peptide Backbone Directed Selfâ€Assembly of Merocyanine Oligomers into Duplex Structures. Angewandte Chemie - International Edition, 2022, 61, .	13.8	10
77	Incorporation of 4â€²-C-aminomethyl-2â€²-O-methylthymidine into DNA by thermophilic DNA polymerases. Chemical Communications, 2012, 48, 9619.	4.1	9
78	Repurposing Antiviral Drugs for Orthogonal RNAâ€Catalyzed Labeling of RNA. Angewandte Chemie, 2020, 132, 9421-9425.	2.0	9
79	NAA-modified DNA oligonucleotides with zwitterionic backbones: stereoselective synthesis of Aâ€“T phosphoramidite building blocks. Beilstein Journal of Organic Chemistry, 2015, 11, 50-60.	2.2	8
80	Tuning Exciton Coupling of Merocyanine Nucleoside Dimers by RNA, DNA and GNA Double Helix Conformations. Angewandte Chemie, 2022, 134, .	2.0	8
81	New Deoxyribozymes for the Native Ligation of RNA. Molecules, 2020, 25, 3650.	3.8	7
82	Functional Hallmarks of a Catalytic DNA that Makes Lariat RNA. Chemistry - A European Journal, 2016, 22, 3720-3728.	3.3	6
83	Preparation of 2â€²â€Deoxyâ€2â€²â€Methylselenoâ€Modified Phosphoramidites and RNA. Current Protocols in Nucleic Acid Chemistry, 2006, 27, Unit 1.15.	0.5	5
84	High-Throughput Activity Profiling of RNA-Cleaving DNA Catalysts by Deoxyribozyme Sequencing (DZ-seq). Journal of the American Chemical Society, 2022, 144, 2090-2094.	13.7	5
85	Enzymatic combinatorial nucleoside deletion scanning mutagenesis of functional RNA. Chemical Communications, 2014, 50, 10937.	4.1	4
86	How RNA modification allows non-conventional decoding in mitochondria. Cell Cycle, 2017, 16, 145-146.	2.6	4
87	How DNA catalyses RNA ligation. Nature Catalysis, 2019, 2, 483-484.	34.4	4
88	N6â€Isopentenyladenosine in RNA Determines the Cleavage Site of Endonuclease Deoxyribozymes. Angewandte Chemie, 2020, 132, 18786-18790.	2.0	4
89	In Vitro Assays for RNA Methyltransferase Activity. Methods in Molecular Biology, 2017, 1562, 259-268.	0.9	2
90	RNA-Cleaving DNA Enzymes and Their Potential Therapeutic Applications as Antibacterial and Antiviral Agents. , 2012, , 371-410.		2

#	Article	IF	Citations
91	Peptide Backbone Directed Selfâ€Assembly of Merocyanine Oligomers into Duplex Structures. Angewandte Chemie, 0, , .	2.0	2
92	On Secondary Structure Rearrangements and Equilibria of Small RNAs. ChemBioChem, 2003, 4, 1263-1263.	2.6	1
93	Synthesis of a norcantharidin-tethered guanosine: Protein phosphatase-1 inhibitors that change alternative splicing. Bioorganic and Medicinal Chemistry Letters, 2016, 26, 965-968.	2.2	1
94	Strategies for Characterization of Enzymatic Nucleic Acids. Advances in Biochemical Engineering/Biotechnology, 2017, 170, 37-58.	1.1	1
95	Measurement of Angstrom to Nanometer Molecular Distances with 19 F Nuclear Spins by EPR/ENDOR Spectroscopy. Angewandte Chemie, 2020, 132, 381-387.	2.0	1
96	RNAâ€Cleaving Deoxyribozymes Differentiate Methylated Cytidine Isomers in RNA. Angewandte Chemie, 2021, 133, 19206-19210.	2.0	1
97	Staining of Membrane Receptors with Fluorescently-labeled DNA Aptamers for Super-resolution Imaging. Bio-protocol, 2017, 7, e2541.	0.4	1
98	Supramolecular Fluorescence Resonance Energy Transfer in Nucleobaseâ€Modified Fluorogenic RNA Aptamers. Angewandte Chemie, 2020, 132, 6826-6830.	2.0	1
99	Frontispiece: Functional Hallmarks of a Catalytic DNA that Makes Lariat RNA. Chemistry - A European Journal, 2016, 22, n/a-n/a.	3.3	0
100	Titelbild: N⁶â€Methyladenosineâ€Sensitive RNAâ€Cleaving Deoxyribozymes (Angew. Chem.) Tj ETQq0 0 0 rgBT /Ov	2.0	0
101	4. Bioorthogonal modifications and cycloaddition reactions for RNA chemical biology. , 2013, , 75-100.		0