

Claudia Härtner

List of Publications by Year in descending order

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101
papers

6,071
citations

101384

36
h-index

76769

74
g-index

123
all docs

123
docs citations

123
times ranked

6102
citing authors

#	ARTICLE	IF	CITATIONS
1	Structural Basis for Discriminative Regulation of Gene Expression by Adenine- and Guanine-Sensing mRNAs. <i>Chemistry and Biology</i> , 2004, 11, 1729-1741.	6.2	505
2	Human METTL16 is a ⁶ methyladenosine (m ⁶ A) methyltransferase that targets pre-mRNAs and various non-coding RNAs. <i>EMBO Reports</i> , 2017, 18, 2004-2014.	2.0	481
3	Mechanism of molnupiravir-induced SARS-CoV-2 mutagenesis. <i>Nature Structural and Molecular Biology</i> , 2021, 28, 740-746.	3.6	450
4	Mechanism of SARS-CoV-2 polymerase stalling by remdesivir. <i>Nature Communications</i> , 2021, 12, 279.	5.8	412
5	Eukaryotic 5-methylcytosine (m5C) RNA Methyltransferases: Mechanisms, Cellular Functions, and Links to Disease. <i>Genes</i> , 2019, 10, 102.	1.0	291
6	Multimodal optical sensing and analyte specificity using single-walled carbon nanotubes. <i>Nature Nanotechnology</i> , 2009, 4, 114-120.	15.6	284
7	NSUN3 and ABH1 modify the wobble position of mt-met to expand codon recognition in mitochondrial translation. <i>EMBO Journal</i> , 2016, 35, 2104-2119.	3.5	197
8	Structural basis for Diels-Alder ribozyme-catalyzed carbon-carbon bond formation. <i>Nature Structural and Molecular Biology</i> , 2005, 12, 218-224.	3.6	183
9	The m ⁶ A reader protein YTHDC2 interacts with the small ribosomal subunit and the 5' exoribonuclease XRN1. <i>Rna</i> , 2018, 24, 1339-1350.	1.6	171
10	NSUN6 is a human RNA methyltransferase that catalyzes formation of m ⁵ C72 in specific tRNAs. <i>Rna</i> , 2015, 21, 1532-1543.	1.6	144
11	Fundamental studies of functional nucleic acids: aptamers, riboswitches, ribozymes and DNAzymes. <i>Chemical Society Reviews</i> , 2020, 49, 7331-7353.	18.7	130
12	Crystal structure of a DNA catalyst. <i>Nature</i> , 2016, 529, 231-234.	13.7	126
13	Syntheses of RNAs with up to 100 Nucleotides Containing Site-Specific ² -Methylseleno Labels for Use in X-ray Crystallography. <i>Journal of the American Chemical Society</i> , 2005, 127, 12035-12045.	6.6	98
14	Chemical Synthesis of Selenium-Modified Oligoribonucleotides and Their Enzymatic Ligation Leading to an U6 SnRNA Stem-Loop Segment. <i>Journal of the American Chemical Society</i> , 2004, 126, 1141-1149.	6.6	96
15	DNA-Catalyzed Formation of Nucleopeptide Linkages. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 1753-1757.	7.2	88
16	Probing Secondary Structures of Spin-Labeled RNA by Pulsed EPR Spectroscopy. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 6443-6447.	7.2	88
17	Chemical RNA Modifications for Studies of RNA Structure and Dynamics. <i>ChemBioChem</i> , 2010, 11, 469-480.	1.3	83
18	Methylation of the nucleobases in RNA oligonucleotides mediates duplex-hairpin conversion. <i>Nucleic Acids Research</i> , 2001, 29, 3997-4005.	6.5	81

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19	Modulation of RNA Tertiary Folding by Incorporation of Caged Nucleotides. <i>Angewandte Chemie - International Edition</i> , 2005, 44, 7305-7309.	7.2	76
20	Bistable Secondary Structures of Small RNAs and Their Structural Probing by Comparative Imino Proton NMR Spectroscopy. <i>Journal of Molecular Biology</i> , 2003, 325, 421-431.	2.0	73
21	Recent advances in DNA catalysis. <i>Biopolymers</i> , 2007, 87, 279-292.	1.2	72
22	Site-Specific Labeling of RNA at Internal Ribose Hydroxyl Groups: Terbium-Assisted Deoxyribozymes at Work. <i>Journal of the American Chemical Society</i> , 2014, 136, 8131-8137.	6.6	69
23	Synthesis of spin-labeled riboswitch RNAs using convertible nucleosides and DNA-catalyzed RNA ligation. <i>Bioorganic and Medicinal Chemistry</i> , 2013, 21, 6171-6180.	1.4	65
24	Fluorogenic Labeling of 5'-Formylpyrimidine Nucleotides in DNA and RNA. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 1912-1916.	7.2	65
25	Synthesis and Characterization of RNA Containing a Rigid and Nonperturbing Cytidine-Derived Spin Label. <i>Journal of Organic Chemistry</i> , 2012, 77, 7749-7754.	1.7	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. <i>Genes and Development</i> , 2015, 29, 94-107.	2.7	59
27	Orientation selection in distance measurements between nitroxide spin labels at 94 GHz EPR with variable dual frequency irradiation. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 3433.	1.3	58
28	On Secondary Structure Rearrangements and Equilibria of Small RNAs. <i>ChemBioChem</i> , 2003, 4, 984-990.	1.3	56
29	A Mini-Twister Variant and Impact of Residues/Cations on the Phosphodiester Cleavage of this Ribozyme Class. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 15128-15133.	7.2	51
30	High-resolution measurement of long-range distances in RNA: pulse EPR spectroscopy with TEMPO-labeled nucleotides. <i>Chemical Science</i> , 2016, 7, 3172-3180.	3.7	49
31	Site-specific RNA methylation by a methyltransferase ribozyme. <i>Nature</i> , 2020, 587, 663-667.	13.7	49
32	The Synthesis of 2'-O-[(Triisopropylsilyloxy) 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. <i>Monatshefte für Chemie</i> , 2003, 134, 851-873.	0.9	48
33	Machine learning of reverse transcription signatures of variegated polymerases allows mapping and discrimination of methylated purines in limited transcriptomes. <i>Nucleic Acids Research</i> , 2020, 48, 3734-3746.	6.5	45
34	A Multicolor Large Stokes Shift Fluorogenic Activating RNA Aptamer with Cationic Chromophores. <i>Chemistry - A European Journal</i> , 2019, 25, 1931-1935.	1.7	44
35	Triggering of RNA Secondary Structures by a Functionalized Nucleobase. <i>Angewandte Chemie - International Edition</i> , 2004, 43, 3922-3925.	7.2	42
36	Control of membrane gaps by synaptotagmin-Ca ²⁺ measured with a novel membrane distance ruler. <i>Nature Communications</i> , 2014, 5, 5859.	5.8	42

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37	Aptamers provide superior stainings of cellular receptors studied under super-resolution microscopy. <i>PLoS ONE</i> , 2017, 12, e0173050.	1.1	40
38	<i>N⁶-Methyladenosine</i> -Sensitive RNA-Cleaving Deoxyribozymes. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 15117-15121.	7.2	39
39	Efficiency and precision of microRNA biogenesis modes in plants. <i>Nucleic Acids Research</i> , 2018, 46, 10709-10723.	6.5	37
40	Direct <i>In Vitro</i> Selection of <i>Trans</i> -Acting Ribozymes for Posttranscriptional, Site-Specific, and Covalent Fluorescent Labeling of RNA. <i>Journal of the American Chemical Society</i> , 2019, 141, 19546-19549.	6.6	37
41	Synthesis, Gene Silencing, and Molecular Modeling Studies of 4 <i>C</i> -Aminomethyl-2 <i>O</i> -methyl Modified Small Interfering RNAs. <i>Journal of Organic Chemistry</i> , 2012, 77, 3233-3245.	1.7	35
42	RNA Two-State Conformation Equilibria and the Effect of Nucleobase Methylation. <i>Angewandte Chemie - International Edition</i> , 2002, 41, 605-609.	7.2	33
43	Translation of non-standard codon nucleotides reveals minimal requirements for codon-anticodon interactions. <i>Nature Communications</i> , 2018, 9, 4865.	5.8	33
44	A dual-mode microwave resonator for double electron-electron spin resonance spectroscopy at W-band microwave frequencies. <i>Journal of Magnetic Resonance</i> , 2011, 209, 341-346.	1.2	32
45	Measurement of Angstrom to Nanometer Molecular Distances with ¹⁹ F Nuclear Spins by EPR/ENDOR Spectroscopy. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 373-379.	7.2	32
46	Combinatorial Mutation Interference Analysis Reveals Functional Nucleotides Required for DNA Catalysis. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 8504-8508.	7.2	30
47	Probing Essential Nucleobase Functional Groups in Aptamers and Deoxyribozymes by Nucleotide Analogue Interference Mapping of DNA. <i>Journal of the American Chemical Society</i> , 2011, 133, 14888-14891.	6.6	30
48	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. <i>Journal of Inorganic Biochemistry</i> , 2011, 105, 256-267.	1.5	30
49	Novel Fluoride-Labile Nucleobase-Protecting Groups for the Synthesis of 3-(2'-O-Aminoacylated RNA Sequences. <i>Helvetica Chimica Acta</i> , 2000, 83, 2477-2503.	1.0	27
50	Lanthanide Cofactors Accelerate DNA-Catalyzed Synthesis of Branched RNA. <i>Journal of the American Chemical Society</i> , 2013, 135, 12839-12848.	6.6	27
51	Repurposing Antiviral Drugs for Orthogonal RNA-Catalyzed Labeling of RNA. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 9335-9339.	7.2	27
52	Yeast Prp2 liberates the 5' splice site and the branch site adenosine for catalysis of pre-mRNA splicing. <i>Rna</i> , 2017, 23, 1770-1779.	1.6	26
53	Large Stokes shift fluorescence activation in an RNA aptamer by intermolecular proton transfer to guanine. <i>Nature Communications</i> , 2021, 12, 3549.	5.8	26
54	NOseq: amplicon sequencing evaluation method for RNA m6A sites after chemical deamination. <i>Nucleic Acids Research</i> , 2021, 49, e23-e23.	6.5	25

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55	Engineering a Selective Small-Molecule Substrate Binding Site into a Deoxyribozyme. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 7420-7424.	7.2	24
56	Chemoselective labeling and site-specific mapping of 5-formylcytosine as a cellular nucleic acid modification. <i>FEBS Letters</i> , 2018, 592, 2032-2047.	1.3	23
57	Site-selective depurination by a periodate-dependent deoxyribozyme. <i>Chemical Communications</i> , 2007, , 2255-2257.	2.2	22
58	Supramolecular Fluorescence Resonance Energy Transfer in Nucleobase-Modified Fluorogenic RNA Aptamers. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 6760-6764.	7.2	22
59	Substrate-assisted mechanism of RNP disruption by the spliceosomal Brr2 RNA helicase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 7798-7803.	3.3	21
60	The RNA methyltransferase METTL8 installs m ³ C ³² in mitochondrial tRNAs ^{Thr/Ser} (UCN) to optimise tRNA structure and mitochondrial translation. <i>Nature Communications</i> , 2022, 13, 209.	5.8	19
61	Tuning Exciton Coupling of Merocyanine Nucleoside Dimers by RNA, DNA and GNA Double Helix Conformations. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	18
62	Enzymatic Ligation Strategies for the Preparation of Purine Riboswitches with Site-Specific Chemical Modifications. <i>Methods in Molecular Biology</i> , 2009, 540, 15-24.	0.4	17
63	Enzymatic Labeling of 5-Hydroxymethylcytosine in DNA. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 4268-4270.	7.2	16
64	⁶ Isopentenyladenosine in RNA Determines the Cleavage Site of Endonuclease Deoxyribozymes. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 18627-18631.	7.2	16
65	Structure and mechanism of the methyltransferase ribozyme MTR1. <i>Nature Chemical Biology</i> , 2022, 18, 547-555.	3.9	16
66	Fluorogene Markierung von 5-Formylpyrimidin-Nucleotiden in DNA und RNA. <i>Angewandte Chemie</i> , 2016, 128, 1946-1950.	1.6	15
67	High-frequency 263 GHz PELDOR. <i>Applied Magnetic Resonance</i> , 2014, 45, 969-979.	0.6	14
68	Synthesis and properties of DNA oligonucleotides with a zwitterionic backbone structure. <i>Chemical Communications</i> , 2014, 50, 13742-13745.	2.2	14
69	Mg ²⁺ -dependent conformational changes and product release during DNA-catalyzed RNA ligation monitored by Bimane fluorescence. <i>Nucleic Acids Research</i> , 2015, 43, 40-50.	6.5	14
70	Combinatorial Nucleoside-Deletion-Scanning Mutagenesis of Functional DNA. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 2995-2999.	7.2	13
71	RNA-Cleaving Deoxyribozymes Differentiate Methylated Cytidine Isomers in RNA. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 19058-19062.	7.2	13
72	Debranchase-resistant labeling of RNA using the 10DM24 deoxyribozyme and fluorescent modified nucleotides. <i>Chemical Communications</i> , 2017, 53, 11992-11995.	2.2	12

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73	Deoxyribozyme-Mediated Ligation for Incorporating EPR Spin Labels and Reporter Groups into RNA. <i>Methods in Enzymology</i> , 2014, 549, 85-104.	0.4	11
74	N ⁶ -Methyladenosine-Sensitive RNA-Cleaving Deoxyribozymes. <i>Angewandte Chemie</i> , 2018, 130, 15337-15341.	16	11
75	Structure-fluorescence activation relationships of a large Stokes shift fluorogenic RNA aptamer. <i>Nucleic Acids Research</i> , 2019, 47, 11538-11550.	6.5	11
76	Peptide Backbone Directed Self-Assembly of Merocyanine Oligomers into Duplex Structures. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	10
77	Incorporation of 4 ^ε -C-aminomethyl-2 ^ε -O-methylthymidine into DNA by thermophilic DNA polymerases. <i>Chemical Communications</i> , 2012, 48, 9619.	2.2	9
78	Repurposing Antiviral Drugs for Orthogonal RNA-Catalyzed Labeling of RNA. <i>Angewandte Chemie</i> , 2020, 132, 9421-9425.	1.6	9
79	NAA-modified DNA oligonucleotides with zwitterionic backbones: stereoselective synthesis of A ^ε T phosphoramidite building blocks. <i>Beilstein Journal of Organic Chemistry</i> , 2015, 11, 50-60.	1.3	8
80	Tuning Exciton Coupling of Merocyanine Nucleoside Dimers by RNA, DNA and GNA Double Helix Conformations. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	8
81	New Deoxyribozymes for the Native Ligation of RNA. <i>Molecules</i> , 2020, 25, 3650.	1.7	7
82	Functional Hallmarks of a Catalytic DNA that Makes Lariat RNA. <i>Chemistry - A European Journal</i> , 2016, 22, 3720-3728.	1.7	6
83	Preparation of 2 ^ε -Deoxy-2 ^ε -Methylseleno-Modified Phosphoramidites and RNA. <i>Current Protocols in Nucleic Acid Chemistry</i> , 2006, 27, Unit 1.15.	0.5	5
84	High-Throughput Activity Profiling of RNA-Cleaving DNA Catalysts by Deoxyribozyme Sequencing (DZ-seq). <i>Journal of the American Chemical Society</i> , 2022, 144, 2090-2094.	6.6	5
85	Enzymatic combinatorial nucleoside deletion scanning mutagenesis of functional RNA. <i>Chemical Communications</i> , 2014, 50, 10937.	2.2	4
86	How RNA modification allows non-conventional decoding in mitochondria. <i>Cell Cycle</i> , 2017, 16, 145-146.	1.3	4
87	How DNA catalyses RNA ligation. <i>Nature Catalysis</i> , 2019, 2, 483-484.	16.1	4
88	N ⁶ -Isopentenyladenosine in RNA Determines the Cleavage Site of Endonuclease Deoxyribozymes. <i>Angewandte Chemie</i> , 2020, 132, 18786-18790.	1.6	4
89	In Vitro Assays for RNA Methyltransferase Activity. <i>Methods in Molecular Biology</i> , 2017, 1562, 259-268.	0.4	2
90	RNA-Cleaving DNA Enzymes and Their Potential Therapeutic Applications as Antibacterial and Antiviral Agents. , 2012, , 371-410.		2

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91	Peptide Backbone Directed Self-Assembly of Merocyanine Oligomers into Duplex Structures. <i>Angewandte Chemie</i> , 0, , .	1.6	2
92	On Secondary Structure Rearrangements and Equilibria of Small RNAs. <i>ChemBioChem</i> , 2003, 4, 1263-1263.	1.3	1
93	Synthesis of a norcantharidin-tethered guanosine: Protein phosphatase-1 inhibitors that change alternative splicing. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2016, 26, 965-968.	1.0	1
94	Strategies for Characterization of Enzymatic Nucleic Acids. <i>Advances in Biochemical Engineering/Biotechnology</i> , 2017, 170, 37-58.	0.6	1
95	Measurement of Angstrom to Nanometer Molecular Distances with ¹⁹ F Nuclear Spins by EPR/ENDOR Spectroscopy. <i>Angewandte Chemie</i> , 2020, 132, 381-387.	1.6	1
96	RNA-Cleaving Deoxyribozymes Differentiate Methylated Cytidine Isomers in RNA. <i>Angewandte Chemie</i> , 2021, 133, 19206-19210.	1.6	1
97	Staining of Membrane Receptors with Fluorescently-labeled DNA Aptamers for Super-resolution Imaging. <i>Bio-protocol</i> , 2017, 7, e2541.	0.2	1
98	Supramolecular Fluorescence Resonance Energy Transfer in Nucleobase-Modified Fluorogenic RNA Aptamers. <i>Angewandte Chemie</i> , 2020, 132, 6826-6830.	1.6	1
99	Frontispiece: Functional Hallmarks of a Catalytic DNA that Makes Lariat RNA. <i>Chemistry - A European Journal</i> , 2016, 22, n/a-n/a.	1.7	0
100	Titelbild: <i>N⁶-Methyladenosine-Sensitive RNA-Cleaving Deoxyribozymes (Angew. Chem.)</i> Tj ETQq0 0 0 rgBT /Ov	1.6	0
101	4. Bioorthogonal modifications and cycloaddition reactions for RNA chemical biology. , 2013, , 75-100.		0