Andrea Rentmeister

List of Publications by Year
in descending order

94	3,039	147566	189595
papers	citations	31 h-index	50 g-index

133	133	133	3042
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	FTO controls reversible m6Am RNA methylation during snRNA biogenesis. Nature Chemical Biology, 2019, 15, 340-347.	3.9	192
2	The energy-transfer-enabled biocompatible disulfideâ€“ene reaction. Nature Chemistry, 2018, 10, 981-988.	6.6	143
3	Chemo-enzymatic fluorination of unactivated organic compounds. Nature Chemical Biology, 2009, 5, 26-28.	3.9	125
4	A Chemoâ€Enzymatic Approach for Siteâ€Specific Modification of the RNA Cap. Angewandte Chemie - International Edition, 2013, 52, 7874-7878.	7.2	110
5	Enzymatic modification of 5â€²-capped RNA with a 4-vinylbenzyl group provides a platform for photoclick and inverse electron-demand Dielsâ€“Alder reaction. Chemical Science, 2015, 6, 1362-1369.	3.7	92
6	Modifying the 5â€²â€Cap for Click Reactions of Eukaryotic mRNA and To Tune Translation Efficiency in Living Cells. Angewandte Chemie - International Edition, 2016, 55, 10899-10903.	7.2	86
7	GGA1 Is Expressed in the Human Brain and Affects the Generation of Amyloid Â-Peptide. Journal of Neuroscience, 2006, 26, 12838-12846.	1.7	82
8	Enzymatic or In Vivo Installation of Propargyl Groups in Combination with Click Chemistry for the Enrichment and Detection of Methyltransferase Target Sites in RNA. Angewandte Chemie - International Edition, 2018, 57, 6342-6346.	7.2	82
9	Bioorthogonal site-specific labeling of the 5â€²-cap structure in eukaryotic mRNAs. Chemical Communications, 2014, 50, 4478-4481.	2.2	81
10	Cell-Specific Aptamers as Emerging Therapeutics. Journal of Nucleic Acids, 2011, 2011, 1-18.	0.8	79
11	Covalent labeling of nucleic acids. Chemical Society Reviews, 2020, 49, 8749-8773.	18.7	79
12	Synthetic mRNA capping. Beilstein Journal of Organic Chemistry, 2017, 13, 2819-2832.	1.3	68
13	Conformational changes in the expression domain of the Escherichia coli thiM riboswitch. Nucleic Acids Research, 2007, 35, 3713-3722.	6.5	67
14	A Biocatalytic Cascade for Versatile Oneâ€Pot Modification of mRNA Starting from Methionine Analogues. Angewandte Chemie - International Edition, 2016, 55, 1917-1920.	7.2	66
15	RNA aptamers selectively modulate protein recruitment to the cytoplasmic domain of Â-secretase BACE1 in vitro. Rna, 2006, 12, 1650-1660.	1.6	51
16	An Aptamer Targeting the Apicalâ€Loop Domain Modulates priâ€miRNA Processing. Angewandte Chemie - International Edition, 2010, 49, 4674-4677.	7.2	49
17	Current Approaches for RNA Labeling in Vitro and in Cells Based on Click Reactions. ChemBioChem, 2014, 15, 2342-2347.	1.3	49
18	New AdoMet Analogues as Tools for Enzymatic Transfer of Photoâ€Crossâ€Linkers and Capturing RNAâ€“Protein Interactions. Chemistry - A European Journal, 2017, 23, 5988-5993.	1.7	48

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19	Multiple covalent fluorescence labeling of eukaryotic mRNA at the poly(A) tail enhances translation and can be performed in living cells. Nucleic Acids Research, 2019, 47, e42-e42.	6.5	47
20	Structural Elucidation of the Bispecificity of A Domains as a Basis for Activating Nonâ€natural Amino Acids. Angewandte Chemie - International Edition, 2015, 54, 8833-8836.	7.2	46
21	Dual 5â€² Cap Labeling Based on Regioselective RNA Methyltransferases and Bioorthogonal Reactions. Chemistry - A European Journal, 2017, 23, 6165-6173.	1.7	43
22	Genetically encoded tools for RNA imaging in living cells. Current Opinion in Biotechnology, 2015, 31, 42-49.	3.3	42
23	Current covalent modification methods for detecting RNA in fixed and living cells. Methods, 2016, 98, 18-25.	1.9	42
24	Reversible modification of DNA by methyltransferase-catalyzed transfer and light-triggered removal of photo-caging groups. Chemical Communications, 2018, 54, 449-451.	2.2	42
25	Tagâ€Free Internal RNA Labeling and Photocaging Based on mRNA Methyltransferases. Angewandte Chemie - International Edition, 2021, 60, 4098-4103.	7.2	40
26	A diverse set of familyÂ48 bacterial glycoside hydrolase cellulases created by structureâ€guided recombination. FEBS Journal, 2012, 279, 4453-4465.	2.2	38
27	Engineered Bacterial Mimics of Human Drug Metabolizing Enzyme CYP2C9. ChemCatChem, 2011, 3, 1065-1071.	1.8	36
28	A benzylic linker promotes methyltransferase catalyzed norbornene transfer for rapid bioorthogonal tetrazine ligation. Chemical Science, 2017, 8, 7947-7953.	3.7	36
29	A Benzophenoneâ€Based Photocaging Strategy for the N7 Position of Guanosine. Angewandte Chemie - International Edition, 2020, 59, 3161-3165.	7.2	36
30	Engineered SAM Synthetases for Enzymatic Generation of AdoMet Analogs with Photocaging Groups and Reversible DNA Modification in Cascade Reactions. Angewandte Chemie - International Edition, 2021, 60, 480-485.	7.2	36
31	Sequence-specific m⁶A demethylation in RNA by FTO fused to RCas9. Rna, 2019, 25, 1311-1323.	1.6	34
32	Chemoâ€Enzymatic Modification of the 5â€² Cap Maintains Translation and Increases Immunogenic Properties of mRNA. Angewandte Chemie - International Edition, 2021, 60, 13280-13286.	7.2	34
33	Differential Requirement for Translation Initiation Factor Pathways during Ecdysone-Dependent Neuronal Remodeling in Drosophila. Cell Reports, 2018, 24, 2287-2299.e4.	2.9	32
34	Tetramolecular Fluorescence Complementation for Detection of Specific RNAs in Vitro. ChemBioChem, 2013, 14, 200-204.	1.3	31
35	Visualization of Multimerization and Self-Assembly of DNA-Functionalized Gold Nanoparticles Using In-Liquid Transmission Electron Microscopy. Journal of Physical Chemistry Letters, 2015, 6, 4487-4492.	2.1	31
36	Chemoâ€enzymatic treatment of RNA to facilitate analyses. Wiley Interdisciplinary Reviews RNA, 2020, 11, e1561.	3.2	31

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37	Engineering Giardia lamblia trimethylguanosine synthase (GlaTgs2) to transfer non-natural modifications to the RNA 5'-cap. Protein Engineering, Design and Selection, 2015, 28, 179-186.	1.0	30
38	Photocaged 5â€² cap analogues for optical control of mRNA translation in cells. Nature Chemistry, 2022, 14, 905-913.	6.6	29
39	Eine biokatalytische Kaskade fÃ¼r die vielseitige Eintopfâ€Modifizierung von mRNA ausgehend von Methioninanaloga. Angewandte Chemie, 2016, 128, 1951-1954.	1.6	28
40	Modifizierung der 5â€²â€Kappe eukaryotischer mRNA fÃ¼r Klickâ€Reaktionen und zur Beeinflussung der Translationseffizienz in lebenden Zellen. Angewandte Chemie, 2016, 128, 11059-11063.	1.6	28
41	Nucleoside-modified AdoMet analogues for differential methyltransferase targeting. Chemical Communications, 2020, 56, 2115-2118.	2.2	27
42	Enzyme-mediated tagging of RNA. Current Opinion in Biotechnology, 2017, 48, 69-76.	3.3	24
43	Current techniques for visualizing RNA in cells. F1000Research, 2016, 5, 775.	0.8	23
44	Bioorthogonal mRNA labeling at the poly(A) tail for imaging localization and dynamics in live zebrafish embryos. Chemical Science, 2020, 11, 3089-3095.	3.7	23
45	Emerging approaches for detection of methylation sites in RNA. Open Biology, 2018, 8, .	1.5	22
46	An enzyme-coupled high-throughput assay for screening RNA methyltransferase activity inE. Colicell lysate. RNA Biology, 2012, 9, 577-586.	1.5	19
47	Enzymatischer oder In-vivo-Einbau von Propargylgruppen in Kombination mit Klick-Chemie zur Anreicherung und Detektion von Methyltransferase-Zielsequenzen in RNA. Angewandte Chemie, 2018, 130, 6451-6455.	1.6	19
48	Titelbild: MaÃŸgeschneiderte SAMâ€Synthetasen zur enzymatischen Herstellung von AdoMetâ€Analoga mit Photoschutzgruppen und zur reversiblen DNAâ€Modifizierung in Kaskadenreaktionen (Angew. Chem.) Tj ETQq0 0 0 rgBT /Overlock 10 T	1.6	19
49	One-pot modification of 5â€²-capped RNA based on methionine analogs. Methods, 2016, 107, 3-9.	1.9	18
50	Mapping N⁶â€Methyladenosine (m⁶A) in RNA: Established Methods, Remaining Challenges, and Emerging Approaches. Chemistry - A European Journal, 2019, 25, 3455-3464.	1.7	18
51	Making the Message Clear: Concepts for mRNA Imaging. ACS Central Science, 2017, 3, 701-707.	5.3	16
52	Harnessing methylation and AdoMet-utilising enzymes for selective modification in cascade reactions. Organic and Biomolecular Chemistry, 2021, 19, 3756-3762.	1.5	16
53	Secondary structures and functional requirements for thiM riboswitches from Desulfovibrio vulgaris, Erwinia carotovora and Rhodobacter spheroides. Biological Chemistry, 2008, 389, 127-134.	1.2	15
54	mRNA Therapies: New Hope in the Fight against Melanoma. Biochemistry, 2020, 59, 1650-1655.	1.2	14

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55	Quantum Chemical Calculations and Experimental Validation of the Photoclick Reaction for Fluorescent Labeling of the 5â€™ cap of Eukaryotic mRNAs. ChemistryOpen, 2015, 4, 295-301.	0.9	13
56	Chemo-Enzymatic Modification of the 5â€² Cap To Study mRNAs. Accounts of Chemical Research, 2022, 55, 1249-1261.	7.6	13
57	Quantification of mRNA cap-modifications by means of LC-QqQ-MS. Methods, 2022, 203, 196-206.	1.9	12
58	Bio-additive-based screening: toward evaluation of the biocompatibility of chemical reactions. Nature Protocols, 2019, 14, 2599-2626.	5.5	11
59	Clicking a Fish: Click Chemistry of Different Biomolecules inDanio rerio. Biochemistry, 2019, 58, 24-30.	1.2	11
60	Tagâ€Free Internal RNA Labeling and Photocaging Based on mRNA Methyltransferases. Angewandte Chemie, 2021, 133, 4144-4149.	1.6	11
61	Visualization of Cellular Components in a Mammalian Cell with Liquid-Cell Transmission Electron Microscopy. Microscopy and Microanalysis, 2017, 23, 46-55.	0.2	10
62	Chemo-enzymatic modification of eukaryotic mRNA. Organic and Biomolecular Chemistry, 2017, 15, 278-284.	1.5	10
63	A FACS-based screening strategy to assess sequence-specific RNA-binding of Pumilio protein variants in E. coli. Biological Chemistry, 2017, 398, 69-75.	1.2	10
64	Multiresponsive hydrogels and organogels based on photocaged cysteine. Chemical Communications, 2021, 57, 5913-5916.	2.2	10
65	Practical Synthesis of Capâ€4 RNA. ChemBioChem, 2020, 21, 265-271.	1.3	9
66	Chemically labeled toxins or bioactive peptides show a heterogeneous intracellular distribution and low spatial overlap with autofluorescence in bloom-forming cyanobacteria. Scientific Reports, 2020, 10, 2781.	1.6	9
67	Chemoenzymatic strategies for RNA modification and labeling. Current Opinion in Chemical Biology, 2021, 63, 46-56.	2.8	9
68	Visibleâ€Light Removable Photocaging Groups Accepted by MjMAT Variant: Structural Basis and Compatibility with DNA and RNA Methyltransferases. ChemBioChem, 2022, 23, e202100437.	1.3	9
69	CRISPR/Cas9: A New Tool for RNA Imaging in Live Cells. ChemBioChem, 2016, 17, 1682-1684.	1.3	8
70	Eine auf dem BenzophenongerÃ¼st basierende Strategie fÃ¼r die PhotoschÃ¼tzung der N7â€Position des Guanosins. Angewandte Chemie, 2020, 132, 3186-3191.	1.6	8
71	Selfâ€Assembled Cationic Polypeptide Supramolecular Nanogels for Intracellular DNA Delivery. Chemistry - A European Journal, 2021, 27, 12198-12206.	1.7	8
72	A Genetically Encodable System for Sequenceâ€Specific Detection of RNAs in Two Colors. ChemBioChem, 2016, 17, 895-899.	1.3	7

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73	Combining Chemical Synthesis and Enzymatic Methylation to Access Short RNAs with Various 5â€² Caps. ChemBioChem, 2019, 20, 1693-1700.	1.3	7
74	Current Developments in Cellulase Engineering. ChemBioEng Reviews, 2014, 1, 6-13.	2.6	6
75	Programmable Design of Functional Ribonucleoprotein Complexes. Chemistry - an Asian Journal, 2014, 9, 2045-2051.	1.7	6
76	Challenging natureâ€™s preference for methylation. Nature Chemistry, 2020, 12, 791-792.	6.6	6
77	Current Developments in Cellulase Engineering. Chemie-Ingenieur-Technik, 2013, 85, 818-825.	0.4	5
78	CRISPR Craze Conquers the RNA World: Precise Manipulation of DNA and RNA Based on a Bacterial Defense System. Angewandte Chemie - International Edition, 2015, 54, 4710-4712.	7.2	5
79	Enzymatic Modification of 5â€²-Capped RNA and Subsequent Labeling by Click Chemistry. Methods in Molecular Biology, 2016, 1428, 45-60.	0.4	5
80	Direct Bisulfiteâ€Free Detection of 5â€Methylcytosine by Using Electrochemical Measurements Aided by a Monoclonal Antibody. ChemElectroChem, 2018, 5, 1631-1635.	1.7	5
81	MaÃŸgeschneiderte SAMâ€Synthetasen zur enzymatischen Herstellung von AdoMetâ€Analoga mit Photoschutzgruppen und zur reversiblen DNAâ€Modifizierung in Kaskadenreaktionen. Angewandte Chemie, 2021, 133, 484-489.	1.6	5
82	A novel ¹⁸F-labeled clickable substrate for targeted imaging of SNAP-tag expressing cells by PET in vivo. Chemical Communications, 2021, 57, 9850-9853.	2.2	5
83	Light-control of cap methylation and mRNA translation via genetic code expansion of Ecm1. Chemical Science, 2021, 12, 4383-4388.	3.7	4
84	Covalent labeling of immune cells. Current Opinion in Chemical Biology, 2022, 68, 102144.	2.8	3
85	Kinetic Examination and Simulation of GDP-Î²-l-fucose Synthetase Reaction Using NADPH or NADH. Biocatalysis and Biotransformation, 2004, 22, 49-56.	1.1	2
86	Eine chemoâ€enzymatische Modifizierung der 5â€²â€Kappe erhÃlt die Translation und erhÃ¶ht die ImmunogenitÃt der mRNA. Angewandte Chemie, 2021, 133, 13390-13397.	1.6	2
87	Computational design and experimental characterization of a photo-controlled mRNA-cap guanine-N7 methyltransferase. RSC Chemical Biology, 2021, 2, 1484-1490.	2.0	2
88	Manipulation von RNA mit Designerproteinen. Nachrichten Aus Der Chemie, 2016, 64, 297-301.	0.0	1
89	Enzymatic Transfer of Photo-Cross-Linkers for RNA-Protein Photo-Cross-Linking at the mRNA 5â€²-Cap. Methods in Molecular Biology, 2019, 2008, 131-146.	0.4	1
90	Chemoenzymatic labeling of RNA to enrich, detect and identify methyltransferase-target sites. Methods in Enzymology, 2021, 658, 161-190.	0.4	1

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91	Chemo-enzymatic Strategies to Modify RNA in vitro or in Living Cells. , 2014, , 409-421.		1
92	Sequence-specific targeting of RNA. Methods, 2022, 205, 73-82.	1.9	1
93	Innentitelbild: Enzymatischer oder Inâ€vivoâ€Einbau von Propargylgruppen in Kombination mit Klickâ€Chemie zur Anreicherung und Detektion von Methyltransferaseâ€Zielsequenzen in RNA (Angew. Chem. 21/2018). Angewandte Chemie, 2018, 130, 6064-6064.	1.6	0
94	Functional Nucleic Acid Sensors as Screening Tools. , 2009, , 343-354.		0