Qing Dai

List of Publications by Year
in descending order

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Version: 2024-02-01

78 papers	28,838 citations	66315 42 h-index	66879 78 g-index
84 all docs	84 docs citations	84 times ranked	19458 citing authors

#	Article	IF	Citations
1	N6-methyladenosine-dependent regulation of messenger RNA stability. Nature, 2014, 505, 117-120.	13.7	3,138
2	N6-Methyladenosine in nuclear RNA is a major substrate of the obesity-associated FTO. Nature Chemical Biology, 2011, 7, 885-887.	3.9	2,936
3	Tet Proteins Can Convert 5-Methylcytosine to 5-Formylcytosine and 5-Carboxylcytosine. Science, 2011, 333, 1300-1303.	6.0	2,898
4	ALKBH5 Is a Mammalian RNA Demethylase that Impacts RNA Metabolism and Mouse Fertility. Molecular Cell, 2013, 49, 18-29.	4.5	2,549
5	A METTL3â€“METTL14 complex mediates mammalian nuclear RNA N6-adenosine methylation. Nature Chemical Biology, 2014, 10, 93-95.	3.9	2,342
6	Tet-Mediated Formation of 5-Carboxylcytosine and Its Excision by TDG in Mammalian DNA. Science, 2011, 333, 1303-1307.	6.0	2,332
7	N6-methyladenosine-dependent RNA structural switches regulate RNAâ€“protein interactions. Nature, 2015, 518, 560-564.	13.7	1,482
8	Selective chemical labeling reveals the genome-wide distribution of 5-hydroxymethylcytosine. Nature Biotechnology, 2011, 29, 68-72.	9.4	955
9	Base-Resolution Analysis of 5-Hydroxymethylcytosine in the Mammalian Genome. Cell, 2012, 149, 1368-1380.	13.5	912
10	R-2HG Exhibits Anti-tumor Activity by Targeting FTO/m6A/MYC/CEBPA Signaling. Cell, 2018, 172, 90-105.e23.	13.5	794
11	The dynamic N1-methyladenosine methylome in eukaryotic messenger RNA. Nature, 2016, 530, 441-446.	13.7	765
12	5-hmCâ€“mediated epigenetic dynamics during postnatal neurodevelopment and aging. Nature Neuroscience, 2011, 14, 1607-1616.	7.1	746
13	Ythdc2 is an N6-methyladenosine binding protein that regulates mammalian spermatogenesis. Cell Research, 2017, 27, 1115-1127.	5.7	696
14	N 6-methyladenosine alters RNA structure to regulate binding of a low-complexity protein. Nucleic Acids Research, 2017, 45, 6051-6063.	6.5	586
15	Genome-wide Profiling of 5-Formylcytosine Reveals Its Roles in Epigenetic Priming. Cell, 2013, 153, 678-691.	13.5	502
16	Efficient and quantitative high-throughput tRNA sequencing. Nature Methods, 2015, 12, 835-837.	9.0	426
17	Probing N⁶-methyladenosine RNA modification status at single nucleotide resolution in mRNA and long noncoding RNA. Rna, 2013, 19, 1848-1856.	1.6	421
18	ALKBH1-Mediated tRNA Demethylation Regulates Translation. Cell, 2016, 167, 816-828.e16.	13.5	366

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19	Highâ€Resolution N⁶â€Methyladenosine (m⁶A) Map Using Photoâ€Crosslinkingâ€Assisted m⁶A Sequencing. Angewandte Chemie - International Edition, 2015, 54, 1587-1590.	7.2	319
20	Transcriptome-wide Mapping of Internal N7-Methylguanosine Methylome in Mammalian mRNA. Molecular Cell, 2019, 74, 1304-1316.e8.	4.5	276
21	N6-Methyladenosine methyltransferase ZCCHC4 mediates ribosomal RNA methylation. Nature Chemical Biology, 2019, 15, 88-94.	3.9	258
22	DNA Hydroxymethylation Profiling Reveals that WT1 Mutations Result in Loss of TET2 Function in Acute Myeloid Leukemia. Cell Reports, 2014, 9, 1841-1855.	2.9	237
23	Nm-seq maps 2â€²-O-methylation sites in human mRNA with base precision. Nature Methods, 2017, 14, 695-698.	9.0	218
24	Transfer RNA demethylase ALKBH3 promotes cancer progression via induction of tRNA-derived small RNAs. Nucleic Acids Research, 2019, 47, 2533-2545.	6.5	213
25	Effects of cytosine modifications on DNA flexibility and nucleosome mechanical stability. Nature Communications, 2016, 7, 10813.	5.8	177
26	N6-Methyladenosine Modification in a Long Noncoding RNA Hairpin Predisposes Its Conformation to Protein Binding. Journal of Molecular Biology, 2016, 428, 822-833.	2.0	164
27	Decoding the epitranscriptional landscape from native RNA sequences. Nucleic Acids Research, 2021, 49, e7-e7.	6.5	149
28	A metabolic labeling method detects m6A transcriptome-wide at single base resolution. Nature Chemical Biology, 2020, 16, 887-895.	3.9	133
29	N6-methyladenosine dynamics in neurodevelopment and aging, and its potential role in Alzheimerâ€™s disease. Genome Biology, 2021, 22, 17.	3.8	131
30	m6A RNA modifications are measured at single-base resolution across the mammalian transcriptome. Nature Biotechnology, 2022, 40, 1210-1219.	9.4	115
31	Evolution of a reverse transcriptase to map N1-methyladenosine in human messenger RNA. Nature Methods, 2019, 16, 1281-1288.	9.0	113
32	Cell-Penetrating Peptide-Modified Gold Nanoparticles for the Delivery of Doxorubicin to Brain Metastatic Breast Cancer. Molecular Pharmaceutics, 2016, 13, 1843-1854.	2.3	102
33	Queuosine modification protects cognate tRNAs against ribonuclease cleavage. Rna, 2018, 24, 1305-1313.	1.6	92
34	Identification of recognition residues for ligation-based detection and quantitation of pseudouridine and N6 -methyladenosine. Nucleic Acids Research, 2007, 35, 6322-6329.	6.5	89
35	METTL3-dependent RNA m6A dysregulation contributes to neurodegeneration in Alzheimerâ€™s disease through aberrant cell cycle events. Molecular Neurodegeneration, 2021, 16, 70.	4.4	87
36	Ten-eleven translocation 2 interacts with forkhead box O3 and regulates adult neurogenesis. Nature Communications, 2017, 8, 15903.	5.8	82

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37	Bisulfite-Free, Nanoscale Analysis of 5-Hydroxymethylcytosine at Single Base Resolution. Journal of the American Chemical Society, 2018, 140, 13190-13194.	6.6	71
38	N⁶-Allyladenosine: A New Small Molecule for RNA Labeling Identified by Mutation Assay. Journal of the American Chemical Society, 2017, 139, 17213-17216.	6.6	59
39	Weakened N3 Hydrogen Bonding by 5-Formylcytosine and 5-Carboxylcytosine Reduces Their Base-Pairing Stability. ACS Chemical Biology, 2016, 11, 470-477.	1.6	56
40	A Novel Allosteric Inhibitor of Phosphoglycerate Mutase 1 Suppresses Growth and Metastasis of Non-Small-Cell Lung Cancer. Cell Metabolism, 2019, 30, 1107-1119.e8.	7.2	52
41	Syntheses of 5-Formyl- and 5-Carboxyl-dC Containing DNA Oligos as Potential Oxidation Products of 5-Hydroxymethylcytosine in DNA. Organic Letters, 2011, 13, 3446-3449.	2.4	47
42	Tyrosine Phosphorylation of Mitochondrial Creatine Kinase 1 Enhances a Druggable Tumor Energy Shuttle Pathway. Cell Metabolism, 2018, 28, 833-847.e8.	7.2	46
43	Biogenesis of a 22-nt microRNA in Phaseoleae species by precursor-programmed uridylation. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 8037-8042.	3.3	46
44	Selective Enzymatic Demethylation of N²,N²â€Dimethylguanosine in RNA and Its Application in Highâ€Throughput tRNA Sequencing. Angewandte Chemie - International Edition, 2017, 56, 5017-5020.	7.2	44
45	Interferon inducible pseudouridine modification in human mRNA by quantitative nanopore profiling. Genome Biology, 2021, 22, 330.	3.8	44
46	Comparison of the Structures and Mechanisms of the Pistol and Hammerhead Ribozymes. Journal of the American Chemical Society, 2019, 141, 7865-7875.	6.6	41
47	ALKBH7-mediated demethylation regulates mitochondrial polycistronic RNA processing. Nature Cell Biology, 2021, 23, 684-691.	4.6	41
48	Syntheses of Two 5-Hydroxymethyl-2â€²-deoxycytidine Phosphoramidites with TBDMS as the 5-Hydroxymethyl Protecting Group and Their Incorporation into DNA. Journal of Organic Chemistry, 2011, 76, 4182-4188.	1.7	39
49	Î³-6-Phosphogluconolactone, a Byproduct of the Oxidative Pentose Phosphate Pathway, Contributes to AMPK Activation through Inhibition of PP2A. Molecular Cell, 2019, 76, 857-871.e9.	4.5	39
50	Efficient Synthesis of [2â€˜-18O]Uridine and Its Incorporation into Oligonucleotides:â€‰ A New Tool for Mechanistic Study of Nucleotidyl Transfer Reactions by Isotope Effect Analysis. Journal of Organic Chemistry, 2008, 73, 309-311.	1.7	29
51	Jump-seq: Genome-Wide Capture and Amplification of 5-Hydroxymethylcytosine Sites. Journal of the American Chemical Society, 2019, 141, 8694-8697.	6.6	26
52	The METTL5-TRMT112 N6-methyladenosine methyltransferase complex regulates mRNA translation via 18S rRNA methylation. Journal of Biological Chemistry, 2022, 298, 101590.	1.6	26
53	5-Hydroxymethylcytosine-mediated alteration of transposon activity associated with the exposure to adversein uteroenvironments in human. Human Molecular Genetics, 2016, 25, 2208-2219.	1.4	25
54	Pseudouridines have context-dependent mutation and stop rates in high-throughput sequencing. RNA Biology, 2018, 15, 892-900.	1.5	25

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55	Excision of 5-Carboxylcytosine by Thymine DNA Glycosylase. Journal of the American Chemical Society, 2019, 141, 18851-18861.	6.6	21
56	Thymine DNA glycosylase recognizes the geometry alteration of minor grooves induced by 5-formylcytosine and 5-carboxylcytosine. Chemical Science, 2019, 10, 7407-7417.	3.7	20
57	Single base resolution mapping of 2â€²-O-methylation sites in human mRNA and in 3â€² terminal ends of small RNAs. Methods, 2019, 156, 85-90.	1.9	20
58	Synthesis of 2â€˜-C-Î²-Fluoromethyluridine. Organic Letters, 2003, 5, 807-810.	2.4	18
59	Efficient Chemical Synthesis of AppDNA by Adenylation of Immobilized DNA-5â€²-monophosphate. Organic Letters, 2009, 11, 1067-1070.	2.4	17
60	Oxidized Derivatives of 5-Methylcytosine Alter the Stability and Dehybridization Dynamics of Duplex DNA. Journal of Physical Chemistry B, 2020, 124, 1160-1174.	1.2	16
61	Improved synthesis of 2â€²-amino-2â€²-deoxyguanosine and its phosphoramidite. Bioorganic and Medicinal Chemistry, 2006, 14, 705-713.	1.4	13
62	DNA 5-Methylcytosine-Specific Amplification and Sequencing. Journal of the American Chemical Society, 2020, 142, 4539-4543.	6.6	13
63	Deoxyribozyme-based method for absolute quantification of N6-methyladenosine fractions at specific sites of RNA. Journal of Biological Chemistry, 2020, 295, 6992-7000.	1.6	13
64	5-Carboxylcytosine and Cytosine Protonation Distinctly Alter the Stability and Dehybridization Dynamics of the DNA Duplex. Journal of Physical Chemistry B, 2020, 124, 627-640.	1.2	11
65	A high-throughput screening method for evolving a demethylase enzyme with improved and new functionalities. Nucleic Acids Research, 2021, 49, e30-e30.	6.5	11
66	Synthesis of DNA oligos containing 2â€²-deoxy-2â€²-fluoro-d-arabinofuranosyl-5-carboxylcytosine as hTDG inhibitor. Tetrahedron, 2012, 68, 5145-5151.	1.0	10
67	Tethering-facilitated DNA â€˜openingâ€™ and complementary roles of Î²-hairpin motifs in the Rad4/XPC DNA damage sensor protein. Nucleic Acids Research, 2020, 48, 12348-12364.	6.5	9
68	Syntheses of (2â€˜)3â€˜-15N-Amino-(2â€˜)3â€˜-deoxyguanosine and Determination of Their pKa Values by 15N NMR Spectroscopy. Organic Letters, 2007, 9, 3057-3060.	2.4	8
69	An active site rearrangement within the Tetrahymena group I ribozyme releases nonproductive interactions and allows formation of catalytic interactions. Rna, 2016, 22, 32-48.	1.6	7
70	Efficient Synthesis of 2â€˜,3â€˜-Dideoxy-2â€˜-amino-3â€˜-thiouridine. Organic Letters, 2004, 6, 2169-2172.	2.4	5
71	Impact of DNA sequences on DNA â€˜openingâ€™ by the Rad4/XPC nucleotide excision repair complex. DNA Repair, 2021, 107, 103194.	1.3	5
72	Preparation of DNA Containing 5â€Hydroxymethylâ€2â€²â€Deoxycytidine Modification Through Phosphoramidites with TBDMS as 5â€Hydroxymethyl Protecting Group. Current Protocols in Nucleic Acid Chemistry, 2011, 47, Unit 4.47.1-18.	0.5	3

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73	Selective Enzymatic Demethylation of N²,N²â€Dimethylguanosine in RNA and Its Application in Highâ€Throughput tRNA Sequencing. Angewandte Chemie, 2017, 129, 5099-5102.	1.6	3
74	Dysregulation of the Epitranscriptomic Mark m1A in Ischemic Stroke. Translational Stroke Research, 0, , .	2.3	3
75	Cover Picture: The AlkB Domain of Mammalian ABH8 Catalyzes Hydroxylation of 5-Methoxycarbonylmethyluridine at the Wobble Position of tRNA (Angew. Chem. Int. Ed. 47/2010). Angewandte Chemie - International Edition, 2010, 49, 8765-8765.	7.2	2
76	Synthesis of 2â€²-N-Methylamino-2â€²-deoxyguanosine and 2â€²-N,N-Dimethylamino-2â€²-deoxyguanosine and Their Incorporation into RNA by Phosphoramidite Chemistry. Journal of Organic Chemistry, 2011, 76, 8718-8725.	1.7	1
77	Titelbild: The AlkB Domain of Mammalian ABH8 Catalyzes Hydroxylation of 5-Methoxycarbonylmethyluridine at the Wobble Position of tRNA (Angew. Chem. 47/2010). Angewandte Chemie, 2010, 122, 8947-8947.	1.6	0
78	Experimental and computational evidence that ribonuclease A alters the transition state for RNA 2â€²â€Oâ€transphosphorylation. FASEB Journal, 2013, 27, 998.6.	0.2	0