

# Qing Dai

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

80  
papers

20,033  
citations

38  
h-index

84  
g-index

84  
ext. papers

24,932  
ext. citations

16.2  
avg, IF

6.41  
L-index

#	Paper	IF	Citations
80	The METTL5-TRMT112 N-methyladenosine methyltransferase complex regulates mRNA translation via 18S rRNA methylation.. <i>Journal of Biological Chemistry</i> , <b>2022</b> , 101590	5.4	2
79	mA RNA modifications are measured at single-base resolution across the mammalian transcriptome.. <i>Nature Biotechnology</i> , <b>2022</b> ,	44.5	9
78	A high-throughput screening method for evolving a demethylase enzyme with improved and new functionalities. <i>Nucleic Acids Research</i> , <b>2021</b> , 49, e30	20.1	6
77	ALKBH7-mediated demethylation regulates mitochondrial polycistronic RNA processing. <i>Nature Cell Biology</i> , <b>2021</b> , 23, 684-691	23.4	10
76	Decoding the epitranscriptional landscape from native RNA sequences. <i>Nucleic Acids Research</i> , <b>2021</b> , 49, e7	20.1	68
75	METTL3-dependent RNA mA dysregulation contributes to neurodegeneration in Alzheimer's disease through aberrant cell cycle events. <i>Molecular Neurodegeneration</i> , <b>2021</b> , 16, 70	19	15
74	Impact of DNA sequences on DNA opening by the Rad4/XPC nucleotide excision repair complex. <i>DNA Repair</i> , <b>2021</b> , 107, 103194	4.3	2
73	N6-methyladenosine dynamics in neurodevelopment and aging, and its potential role in Alzheimer's disease. <i>Genome Biology</i> , <b>2021</b> , 22, 17	18.3	38
72	Interferon inducible pseudouridine modification in human mRNA by quantitative nanopore profiling. <i>Genome Biology</i> , <b>2021</b> , 22, 330	18.3	6
71	DNA 5-Methylcytosine-Specific Amplification and Sequencing. <i>Journal of the American Chemical Society</i> , <b>2020</b> , 142, 4539-4543	16.4	8
70	Oxidized Derivatives of 5-Methylcytosine Alter the Stability and Dehybridization Dynamics of Duplex DNA. <i>Journal of Physical Chemistry B</i> , <b>2020</b> , 124, 1160-1174	3.4	8
69	Deoxyribozyme-based method for absolute quantification of 5-methyladenosine fractions at specific sites of RNA. <i>Journal of Biological Chemistry</i> , <b>2020</b> , 295, 6992-7000	5.4	12
68	A metabolic labeling method detects mA transcriptome-wide at single base resolution. <i>Nature Chemical Biology</i> , <b>2020</b> , 16, 887-895	11.7	70
67	5-Carboxylcytosine and Cytosine Protonation Distinctly Alter the Stability and Dehybridization Dynamics of the DNA Duplex. <i>Journal of Physical Chemistry B</i> , <b>2020</b> , 124, 627-640	3.4	5
66	Tethering-facilitated DNA opening and complementary roles of hairpin motifs in the Rad4/XPC DNA damage sensor protein. <i>Nucleic Acids Research</i> , <b>2020</b> , 48, 12348-12364	20.1	6
65	6-Phosphogluconolactone, a Byproduct of the Oxidative Pentose Phosphate Pathway, Contributes to AMPK Activation through Inhibition of PP2A. <i>Molecular Cell</i> , <b>2019</b> , 76, 857-871.e9	17.6	15
64	Evolution of a reverse transcriptase to map N-methyladenosine in human messenger RNA. <i>Nature Methods</i> , <b>2019</b> , 16, 1281-1288	21.6	55

63	Thymine DNA glycosylase recognizes the geometry alteration of minor grooves induced by 5-formylcytosine and 5-carboxylcytosine. <i>Chemical Science</i> , <b>2019</b> , 10, 7407-7417	9.4	13
62	Jump-seq: Genome-Wide Capture and Amplification of 5-Hydroxymethylcytosine Sites. <i>Journal of the American Chemical Society</i> , <b>2019</b> , 141, 8694-8697	16.4	14
61	Comparison of the Structures and Mechanisms of the Pistol and Hammerhead Ribozymes. <i>Journal of the American Chemical Society</i> , <b>2019</b> , 141, 7865-7875	16.4	29
60	Transcriptome-wide Mapping of Internal N-Methylguanosine Methylome in Mammalian mRNA. <i>Molecular Cell</i> , <b>2019</b> , 74, 1304-1316.e8	17.6	133
59	A Novel Allosteric Inhibitor of Phosphoglycerate Mutase 1 Suppresses Growth and Metastasis of Non-Small-Cell Lung Cancer. <i>Cell Metabolism</i> , <b>2019</b> , 30, 1107-1119.e8	24.6	31
58	Excision of 5-Carboxylcytosine by Thymine DNA Glycosylase. <i>Journal of the American Chemical Society</i> , <b>2019</b> , 141, 18851-18861	16.4	12
57	Transfer RNA demethylase ALKBH3 promotes cancer progression via induction of tRNA-derived small RNAs. <i>Nucleic Acids Research</i> , <b>2019</b> , 47, 2533-2545	20.1	108
56	Single base resolution mapping of 2SO-methylation sites in human mRNA and in 3Sterminal ends of small RNAs. <i>Methods</i> , <b>2019</b> , 156, 85-90	4.6	10
55	NMethyladenosine methyltransferase ZCCHC4 mediates ribosomal RNA methylation. <i>Nature Chemical Biology</i> , <b>2019</b> , 15, 88-94	11.7	149
54	Pseudouridines have context-dependent mutation and stop rates in high-throughput sequencing. <i>RNA Biology</i> , <b>2018</b> , 15, 892-900	4.8	18
53	Biogenesis of a 22-nt microRNA in Phaseoleae species by precursor-programmed uridylation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2018</b> , 115, 8037-8042	11.5	27
52	R-2HG Exhibits Anti-tumor Activity by Targeting FTO/mA/MYC/CEBPA Signaling. <i>Cell</i> , <b>2018</b> , 172, 90-105.e33	23.3	479
51	Bisulfite-Free, Nanoscale Analysis of 5-Hydroxymethylcytosine at Single Base Resolution. <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 13190-13194	16.4	42
50	Tyrosine Phosphorylation of Mitochondrial Creatine Kinase 1 Enhances a Druggable Tumor Energy Shuttle Pathway. <i>Cell Metabolism</i> , <b>2018</b> , 28, 833-847.e8	24.6	25
49	Queuosine modification protects cognate tRNAs against ribonuclease cleavage. <i>Rna</i> , <b>2018</b> , 24, 1305-1313	3.8	56
48	N6-methyladenosine alters RNA structure to regulate binding of a low-complexity protein. <i>Nucleic Acids Research</i> , <b>2017</b> , 45, 6051-6063	20.1	339
47	Nm-seq maps 2SO-methylation sites in human mRNA with base precision. <i>Nature Methods</i> , <b>2017</b> , 14, 695-698	21.6	146
46	Selective Enzymatic Demethylation of N2,N2-Dimethylguanosine in RNA and Its Application in High-Throughput tRNA Sequencing. <i>Angewandte Chemie</i> , <b>2017</b> , 129, 5099-5102	3.6	3

45	Selective Enzymatic Demethylation of N,N-Dimethylguanosine in RNA and Its Application in High-Throughput tRNA Sequencing. <i>Angewandte Chemie - International Edition</i> , <b>2017</b> , 56, 5017-5020	16.4	30
44	Ythdc2 is an N-methyladenosine binding protein that regulates mammalian spermatogenesis. <i>Cell Research</i> , <b>2017</b> , 27, 1115-1127	24.7	404
43	N-Allyladenosine: A New Small Molecule for RNA Labeling Identified by Mutation Assay. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 17213-17216	16.4	46
42	Ten-eleven translocation 2 interacts with forkhead box O3 and regulates adult neurogenesis. <i>Nature Communications</i> , <b>2017</b> , 8, 15903	17.4	65
41	N(6)-Methyladenosine Modification in a Long Noncoding RNA Hairpin Predisposes Its Conformation to Protein Binding. <i>Journal of Molecular Biology</i> , <b>2016</b> , 428, 822-833	6.5	122
40	ALKBH1-Mediated tRNA Demethylation Regulates Translation. <i>Cell</i> , <b>2016</b> , 167, 816-828.e16	56.2	197
39	5-Hydroxymethylcytosine-mediated alteration of transposon activity associated with the exposure to adverse in utero environments in human. <i>Human Molecular Genetics</i> , <b>2016</b> , 25, 2208-2219	5.6	21
38	The dynamic N(1)-methyladenosine methylome in eukaryotic messenger RNA. <i>Nature</i> , <b>2016</b> , 530, 441-6	50.4	523
37	An active site rearrangement within the Tetrahymena group I ribozyme releases nonproductive interactions and allows formation of catalytic interactions. <i>Rna</i> , <b>2016</b> , 22, 32-48	5.8	5
36	Weakened N3 Hydrogen Bonding by 5-Formylcytosine and 5-Carboxylcytosine Reduces Their Base-Pairing Stability. <i>ACS Chemical Biology</i> , <b>2016</b> , 11, 470-7	4.9	45
35	Effects of cytosine modifications on DNA flexibility and nucleosome mechanical stability. <i>Nature Communications</i> , <b>2016</b> , 7, 10813	17.4	126
34	Cell-Penetrating Peptide-Modified Gold Nanoparticles for the Delivery of Doxorubicin to Brain Metastatic Breast Cancer. <i>Molecular Pharmaceutics</i> , <b>2016</b> , 13, 1843-54	5.6	75
33	N(6)-methyladenosine-dependent RNA structural switches regulate RNA-protein interactions. <i>Nature</i> , <b>2015</b> , 518, 560-4	50.4	988
32	Efficient and quantitative high-throughput tRNA sequencing. <i>Nature Methods</i> , <b>2015</b> , 12, 835-837	21.6	291
31	High-Resolution N6-Methyladenosine (m6A) Map Using Photo-Crosslinking-Assisted m6A Sequencing. <i>Angewandte Chemie</i> , <b>2015</b> , 127, 1607-1610	3.6	26
30	High-resolution N(6) -methyladenosine (m(6) A) map using photo-crosslinking-assisted m(6) A sequencing. <i>Angewandte Chemie - International Edition</i> , <b>2015</b> , 54, 1587-90	16.4	249
29	A METTL3-METTL14 complex mediates mammalian nuclear RNA N6-adenosine methylation. <i>Nature Chemical Biology</i> , <b>2014</b> , 10, 93-5	11.7	1458
28	N6-methyladenosine-dependent regulation of messenger RNA stability. <i>Nature</i> , <b>2014</b> , 505, 117-20	50.4	1949

27	DNA hydroxymethylation profiling reveals that WT1 mutations result in loss of TET2 function in acute myeloid leukemia. <i>Cell Reports</i> , <b>2014</b> , 9, 1841-1855	10.6	183
26	Probing N6-methyladenosine RNA modification status at single nucleotide resolution in mRNA and long noncoding RNA. <i>Rna</i> , <b>2013</b> , 19, 1848-56	5.8	320
25	ALKBH5 is a mammalian RNA demethylase that impacts RNA metabolism and mouse fertility. <i>Molecular Cell</i> , <b>2013</b> , 49, 18-29	17.6	1627
24	Genome-wide profiling of 5-formylcytosine reveals its roles in epigenetic priming. <i>Cell</i> , <b>2013</b> , 153, 678-915	56.2	453
23	Experimental and computational evidence that ribonuclease A alters the transition state for RNA 2'-O-transphosphorylation. <i>FASEB Journal</i> , <b>2013</b> , 27, 998.6	0.9	
22	Synthesis of DNA oligos containing 2Sdeoxy-2Sfluoro-D-arabinofuranosyl-5-carboxylcytosine as hTDG inhibitor. <i>Tetrahedron</i> , <b>2012</b> , 68, 5145-5151	2.4	9
21	Base-resolution analysis of 5-hydroxymethylcytosine in the mammalian genome. <i>Cell</i> , <b>2012</b> , 149, 1368-80	56.2	801
20	N6-methyladenosine in nuclear RNA is a major substrate of the obesity-associated FTO. <i>Nature Chemical Biology</i> , <b>2011</b> , 7, 885-7	11.7	1937
19	Tet-mediated formation of 5-carboxylcytosine and its excision by TDG in mammalian DNA. <i>Science</i> , <b>2011</b> , 333, 1303-7	33.3	1980
18	Syntheses of two 5-hydroxymethyl-2Sdeoxycytidine phosphoramidites with TBDMS as the 5-hydroxymethyl protecting group and their incorporation into DNA. <i>Journal of Organic Chemistry</i> , <b>2011</b> , 76, 4182-8	4.2	35
17	5-hmC-mediated epigenetic dynamics during postnatal neurodevelopment and aging. <i>Nature Neuroscience</i> , <b>2011</b> , 14, 1607-16	25.5	639
16	Tet proteins can convert 5-methylcytosine to 5-formylcytosine and 5-carboxylcytosine. <i>Science</i> , <b>2011</b> , 333, 1300-3	33.3	2426
15	Preparation of DNA containing 5-hydroxymethyl-2Sdeoxycytidine modification through phosphoramidites with TBDMS as 5-hydroxymethyl protecting group. <i>Current Protocols in Nucleic Acid Chemistry</i> , <b>2011</b> , Chapter 4, Unit 4.47.1-18	0.5	2
14	Selective chemical labeling reveals the genome-wide distribution of 5-hydroxymethylcytosine. <i>Nature Biotechnology</i> , <b>2011</b> , 29, 68-72	44.5	816
13	Syntheses of 5-formyl- and 5-carboxyl-dC containing DNA oligos as potential oxidation products of 5-hydroxymethylcytosine in DNA. <i>Organic Letters</i> , <b>2011</b> , 13, 3446-9	6.2	38
12	Synthesis of 2SN-methylamino-2Sdeoxyguanosine and 2SN,N-dimethylamino-2Sdeoxyguanosine and their incorporation into RNA by phosphoramidite chemistry. <i>Journal of Organic Chemistry</i> , <b>2011</b> , 76, 8718-25	4.2	1
11	The AlkB Domain of Mammalian ABH8 Catalyzes Hydroxylation of 5-Methoxycarbonylmethyluridine at the Wobble Position of tRNA. <i>Angewandte Chemie</i> , <b>2010</b> , 122, 9069-9072	3.6	6
10	Titelbild: The AlkB Domain of Mammalian ABH8 Catalyzes Hydroxylation of 5-Methoxycarbonylmethyluridine at the Wobble Position of tRNA (Angew. Chem. 47/2010). <i>Angewandte Chemie</i> , <b>2010</b> , 122, 8947-8947	3.6	

9	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). <i>Angewandte Chemie - International Edition</i> , <b>2010</b> , 49, 8765-8765	16.4	2
8	Efficient chemical synthesis of AppDNA by adenylation of immobilized DNA-5Smonophosphate. <i>Organic Letters</i> , <b>2009</b> , 11, 1067-70	6.2	12
7	Efficient synthesis of [2S18O]uridine and its incorporation into oligonucleotides: a new tool for mechanistic study of nucleotidyl transfer reactions by isotope effect analysis. <i>Journal of Organic Chemistry</i> , <b>2008</b> , 73, 309-11	4.2	27
6	Syntheses of (2S3S15N-amino-(2S3Sdeoxyguanosine and determination of their pKa values by 15N NMR spectroscopy. <i>Organic Letters</i> , <b>2007</b> , 9, 3057-60	6.2	8
5	The Mechanism of RNA Strand Scission: An Experimental Measure of the Brüsted Coefficient, <i>Buc. Angewandte Chemie</i> , <b>2007</b> , 119, 3788-3791	3.6	3
4	Identification of recognition residues for ligation-based detection and quantitation of pseudouridine and N6-methyladenosine. <i>Nucleic Acids Research</i> , <b>2007</b> , 35, 6322-9	20.1	83
3	Improved synthesis of 2Samino-2Sdeoxyguanosine and its phosphoramidite. <i>Bioorganic and Medicinal Chemistry</i> , <b>2006</b> , 14, 705-13	3.4	12
2	Efficient synthesis of 2S3Sdideoxy-2Samino-3Sthiouridine. <i>Organic Letters</i> , <b>2004</b> , 6, 2169-72	6.2	4
1	Synthesis of 2SC-beta-fluoromethyluridine. <i>Organic Letters</i> , <b>2003</b> , 5, 807-10	6.2	17