Ya-Ming Hou

List of Publications by Year
in descending order

143	5,185	101543 36	118850 62
papers	citations	h-index	g-index

153	153	153	4715
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Interplay between an ATP-binding cassette F protein and the ribosome from Mycobacterium tuberculosis. Nature Communications, 2022, 13, 432.	12.8	16
2	Genome Expansion by tRNA +1 Frameshifting at Quadruplet Codons. Journal of Molecular Biology, 2022, 434, 167440.	4.2	5
3	A stress-free strategy to correct point mutations in patient iPS cells. Stem Cell Research, 2021, 53, 102332.	0.7	4
4	Structural basis for +1 ribosomal frameshifting during EF-G-catalyzed translocation. Nature Communications, 2021, 12, 4644.	12.8	15
5	Twice exploration of tRNAÂ+1 frameshifting in an elongation cycle of protein synthesis. Nucleic Acids Research, 2021, 49, 10046-10060.	14.5	9
6	Loss of N1-methylation of G37 in tRNA induces ribosome stalling and reprograms gene expression. ELife, 2021, 10, .	6.0	17
7	Insights into genome recoding from the mechanism of a classic +1-frameshifting tRNA. Nature Communications, 2021, 12, 328.	12.8	26
8	Time-resolved cryo-EM visualizes ribosomal translocation with EF-G and GTP. Nature Communications, 2021, 12, 7236.	12.8	43
9	A Label-Free Assay for Aminoacylation of tRNA. Genes, 2020, 11, 1173.	2.4	10
10	Deacetylation of HSD17B10 by SIRT3 regulates cell growth and cell resistance under oxidative and starvation stresses. Cell Death and Disease, 2020, 11, 563.	6.3	12
11	A Mitochondrial <scp>tRNA</scp> Mutation Causes Axonal <scp>CMT</scp> in a Large Venezuelan Family. Annals of Neurology, 2020, 88, 830-842.	5.3	7
12	Mg²⁺-Dependent Methyl Transfer by a Knotted Protein: A Molecular Dynamics Simulation and Quantum Mechanics Study. ACS Catalysis, 2020, 10, 8058-8068.	11.2	15
13	<scp>tRNA</scp> methylation: An unexpected link to bacterial resistance and persistence to antibiotics and beyond. Wiley Interdisciplinary Reviews RNA, 2020, 11, e1609.	6.4	13
14	tRNAArg-Derived Fragments Can Serve as Arginine Donors for Protein Arginylation. Cell Chemical Biology, 2020, 27, 839-849.e4.	5.2	19
15	Purification and Use of tRNA for Enzymatic Post-translational Addition of Amino Acids to Proteins. STAR Protocols, 2020, 1, 100207.	1.2	11
16	How to Untie a Protein Knot. Structure, 2019, 27, 1190-1191.	3.3	3
17	Loss-of-function mutations in Lysyl-tRNA synthetase cause various leukoencephalopathy phenotypes. Neurology: Genetics, 2019, 5, e565.	1.9	9
18	tRNA Methylation Is a Global Determinant of Bacterial Multi-drug Resistance. Cell Systems, 2019, 8, 302-314.e8.	6.2	41

#	Article	IF	Citations
19	Allele-specific RNA interference prevents neuropathy in Charcot-Marie-Tooth disease type 2D mouse models. Journal of Clinical Investigation, 2019, 129, 5568-5583.	8.2	47
20	Selective terminal methylation of a tRNA wobble base. Nucleic Acids Research, 2018, 46, e37-e37.	14.5	20
21	tRNA 3â€²-amino-tailing for stable amino acid attachment. Rna, 2018, 24, 1878-1885.	3.5	17
22	Stabilization of Cyclin-Dependent Kinase 4 by Methionyl-tRNA Synthetase in p16^{INK4a}-Negative Cancer. ACS Pharmacology and Translational Science, 2018, 1, 21-31.	4.9	25
23	Hypermorphic and hypomorphic AARS alleles in patients with CMT2N expand clinical and molecular heterogeneities. Human Molecular Genetics, 2018, 27, 4036-4050.	2.9	22
24	Codon-Specific Translation by m1G37 Methylation of tRNA. Frontiers in Genetics, 2018, 9, 713.	2.3	17
25	tRNA Methylation Controls Bacterial Multiâ€Drug Resistance. FASEB Journal, 2018, 32, 105.1.	0.5	0
26	Effect of Nascent Peptide Steric Bulk on Elongation Kinetics in the Ribosome Exit Tunnel. Journal of Molecular Biology, 2017, 429, 1873-1888.	4.2	7
27	Compound heterozygosity for loss-of-function<i>GARS</i>variants results in a multisystem developmental syndrome that includes severe growth retardation. Human Mutation, 2017, 38, 1412-1420.	2.5	30
28	TrmD. The Enzymes, 2017, 41, 89-115.	1.7	24
29	Transcriptionâ€“translation coupling: direct interactions of RNA polymerase with ribosomes and ribosomal subunits. Nucleic Acids Research, 2017, 45, 11043-11055.	14.5	64
30	A genetically encoded fluorescent tRNA is active in live-cell protein synthesis. Nucleic Acids Research, 2017, 45, 4081-4093.	14.5	13
31	Methyl transfer by substrate signaling from a knotted protein fold. Nature Structural and Molecular Biology, 2016, 23, 941-948.	8.2	74
32	Mg ²⁺ regulates transcription of <i>mgtA</i> in <i>Salmonella</i> Typhimurium via translation of proline codons during synthesis of the MgtL peptide. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 15096-15101.	7.1	52
33	Initiator tRNA genes template the 3â€² CCA end at high frequencies in bacteria. BMC Genomics, 2016, 17, 1003.	2.8	10
34	Molecular Basis and Consequences of the Cytochrome c-tRNA Interaction. Journal of Biological Chemistry, 2016, 291, 10426-10436.	3.4	14
35	A novel<i>HSD17B10</i>mutation impairing the activities of the mitochondrial RNase P complex causes X-linked intractable epilepsy and neurodevelopmental regression. RNA Biology, 2016, 13, 477-485.	3.1	42
36	Single-Turnover Kinetics of Methyl Transfer to tRNA by Methyltransferases. Methods in Molecular Biology, 2016, 1421, 79-96.	0.9	1

#	Article	IF	Citations
37	The UGG Isoacceptor of tRNAPro Is Naturally Prone to Frameshifts. International Journal of Molecular Sciences, 2015, 16, 14866-14883.	4.1	30
38	Maintenance of protein synthesis reading frame by EF-P and m1G37-tRNA. Nature Communications, 2015, 6, 7226.	12.8	78
39	Post-transcriptional modifications to tRNAâ€"a response to the genetic code degeneracy. Rna, 2015, 21, 642-644.	3.5	36
40	Kinetic Analysis of tRNA Methyltransferases. Methods in Enzymology, 2015, 560, 91-116.	1.0	4
41	Loss-of-Function Alanyl-tRNA Synthetase Mutations Cause an Autosomal-Recessive Early-Onset Epileptic Encephalopathy with Persistent Myelination Defect. American Journal of Human Genetics, 2015, 96, 675-681.	6.2	84
42	Structural basis for methyl-donorâ€"dependent and sequence-specific binding to tRNA substrates by knotted methyltransferase TrmD. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E4197-205.	7.1	54
43	Impaired Function is a Common Feature of Neuropathy-Associated Glycyl-tRNA Synthetase Mutations. Human Mutation, 2014, 35, n/a-n/a.	2.5	51
44	A dual-targeted aminoacyl-tRNA synthetase in <i>Plasmodium falciparum</i> charges cytosolic and apicoplast tRNACys. Biochemical Journal, 2014, 458, 513-523.	3.7	31
45	Amino acidâ€"dependent stability of the acyl linkage in aminoacyl-tRNA. Rna, 2014, 20, 758-764.	3.5	37
46	Biochemical Characterization of Pathogenic Mutations in Human Mitochondrial Methionyl-tRNA Formyltransferase. Journal of Biological Chemistry, 2014, 289, 32729-32741.	3.4	11
47	A Divalent Metal Ion-Dependent N 1 -Methyl Transfer to G37-tRNA. Chemistry and Biology, 2014, 21, 1351-1360.	6.0	26
48	The selective tRNA aminoacylation mechanism based on a single Gâ€¢U pair. Nature, 2014, 510, 507-511.	27.8	80
49	Regulation of Cell Death by Transfer RNA. Antioxidants and Redox Signaling, 2013, 19, 583-594.	5.4	20
50	High-Purity Enzymatic Synthesis of Site-Specifically Modified tRNA. Methods in Molecular Biology, 2013, 941, 195-212.	0.9	3
51	Structural and Mechanistic Basis for Enhanced Translational Efficiency by 2-Thiouridine at the tRNA Anticodon Wobble Position. Journal of Molecular Biology, 2013, 425, 3888-3906.	4.2	66
52	Conservation of structure and mechanism by Trm5 enzymes. Rna, 2013, 19, 1192-1199.	3.5	33
53	The Temperature Sensitivity of a Mutation in the Essential tRNA Modification Enzyme tRNA Methyltransferase D (TrmD). Journal of Biological Chemistry, 2013, 288, 28987-28996.	3.4	19
54	The Catalytic Domain of Topological Knot tRNA Methyltransferase (TrmH) Discriminates between Substrate tRNA and Nonsubstrate tRNA via an Induced-fit Process. Journal of Biological Chemistry, 2013, 288, 25562-25574.	3.4	32

#	Article	IF	Citations
55	Adaptation to tRNA acceptor stem structure by flexible adjustment in the catalytic domain of class I tRNA synthetases. Rna, 2012, 18, 213-221.	3.5	11
56	Recognition of guanosine by dissimilar tRNA methyltransferases. Rna, 2012, 18, 1687-1701.	3.5	29
57	Genes adopt nonâ€optimal codon usage to generate cell cycleâ€dependent oscillations in protein levels. Molecular Systems Biology, 2012, 8, 572.	7.2	111
58	A Recurrent loss-of-function alanyl-tRNA synthetase (AARSâ€‰) mutation in patients with charcot-marie-tooth disease type 2N (CMT2N). Human Mutation, 2012, 33, 244-253.	2.5	90
59	Pyrophosphorolysis of CCA Addition: Implication for Fidelity. Journal of Molecular Biology, 2011, 414, 28-43.	4.2	9
60	A role for SUMO in nucleotide excision repair. DNA Repair, 2011, 10, 1243-1251.	2.8	35
61	Differentiating analogous tRNA methyltransferases by fragments of the methyl donor. Rna, 2011, 17, 1236-1246.	3.5	33
62	Allosteric Communication in Cysteinyl tRNA Synthetase. Journal of Biological Chemistry, 2011, 286, 37721-37731.	3.4	68
63	Potential for interdependent development of tRNA determinants for aminoacylation and ribosome decoding. Nature Communications, 2011, 2, 329.	12.8	21
64	Compound Heterozygosity for Loss-of-Function Lysyl-tRNA Synthetase Mutations in a Patient with Peripheral Neuropathy. American Journal of Human Genetics, 2010, 87, 560-566.	6.2	169
65	Apoptotic regulation and tRNA. Protein and Cell, 2010, 1, 795-801.	11.0	30
66	Stereochemical mechanisms of tRNA methyltransferases. FEBS Letters, 2010, 584, 278-286.	2.8	36
67	A new (old) way of hijacking tRNA. Nature Chemical Biology, 2010, 6, 795-796.	8.0	8
68	Mechanism of N-methylation by the tRNA m1G37 methyltransferase Trm5. Rna, 2010, 16, 2484-2492.	3.5	35
69	Control of Catalytic Cycle by a Pair of Analogous tRNA Modification Enzymes. Journal of Molecular Biology, 2010, 400, 204-217.	4.2	40
70	CCA addition to tRNA: Implications for tRNA quality control. IUBMB Life, 2010, 62, 251-260.	3.4	64
71	Distinct kinetic determinants for the stepwise CCA addition to tRNA. Rna, 2009, 15, 1827-1836.	3.5	15
72	Incorporation of Tellurocysteine into Glutathione Transferase Generates High Glutathione Peroxidase Efficiency. Angewandte Chemie - International Edition, 2009, 48, 2020-2023.	13.8	69

#	Article	IF	Citations
73	The Archetype Î³-Class Carbonic Anhydrase (Cam) Contains Iron When Synthesized in Vivo. Biochemistry, 2009, 48, 817-819.	2.5	85
74	Fluorophore Labeling to Monitor tRNA Dynamics. Methods in Enzymology, 2009, 469, 69-93.	1.0	10
75	Aminoacylation of tRNA with phosphoserine for synthesis of cysteinyl-tRNACys. Nature Structural and Molecular Biology, 2008, 15, 507-514.	8.2	64
76	Methods for kinetic and thermodynamic analysis of aminoacyl-tRNA synthetases. Methods, 2008, 44, 100-118.	3.8	98
77	Properties of pseudo-complementary DNA substituted with weakly pairing analogs of guanine or cytosine. Nucleic Acids Research, 2008, 36, 6999-7008.	14.5	12
78	tRNA Integrity Is a Prerequisite for Rapid CCA Addition: Implication for Quality Control. Journal of Molecular Biology, 2008, 379, 579-588.	4.2	39
79	RecA-mediated strand invasion of DNA by oligonucleotides substituted with 2-aminoadenine and 2-thiothymine. Nucleic Acids Research, 2008, 36, 6806-6815.	14.5	5
80	Perturbation of the tRNA Tertiary Core Differentially Affects Specific Steps of the Elongation Cycle. Journal of Biological Chemistry, 2008, 283, 18431-18440.	3.4	23
81	The Homotetrameric Phosphoseryl-tRNA Synthetase from Methanosarcina mazei Exhibits Half-of-the-sites Activity. Journal of Biological Chemistry, 2008, 283, 21997-22006.	3.4	37
82	Enzymatic synthesis of structure-free DNA with pseudo-complementary properties. Nucleic Acids Research, 2008, 36, 3409-3419.	14.5	21
83	Pyrrolo-C as a molecular probe for monitoring conformations of the tRNA 3â€² end. Rna, 2008, 14, 2245-2253.	3.5	18
84	Fluorescent labeling of tRNAs for dynamics experiments. Rna, 2007, 13, 1594-1601.	3.5	35
85	Kinetic Quality Control of Anticodon Recognition by a Eukaryotic Aminoacyl-tRNA Synthetase. Journal of Molecular Biology, 2007, 367, 1063-1078.	4.2	24
86	Distinct Determinants of tRNA Recognition by the TrmD and Trm5 Methyl Transferases. Journal of Molecular Biology, 2007, 373, 623-632.	4.2	89
87	Indirect Readout of tRNA for Aminoacylation. Biochemistry, 2007, 46, 10419-10432.	2.5	41
88	Acquisition of an Insertion Peptide for Efficient Aminoacylation by a Halophile tRNA Synthetase. Biochemistry, 2006, 45, 6835-6845.	2.5	15
89	Unrestricted Hybridization of Oligonucleotides to Structure-Free DNA. Biochemistry, 2006, 45, 6978-6986.	2.5	7
90	Catalysis by the Second Class of tRNA(m1G37) Methyl Transferase Requires A Conserved Proline. Biochemistry, 2006, 45, 7463-7473.	2.5	29

#	Article	IF	Citations
91	Distinct Kinetic Mechanisms of the Two Classes of Aminoacyl-tRNA Synthetases. Journal of Molecular Biology, 2006, 361, 300-311.	4.2	100
92	Rapid ribosomal translocation depends on the conserved 18-55 base pair in P-site transfer RNA. Nature Structural and Molecular Biology, 2006, 13, 354-359.	8.2	48
93	Isolation of a site-specifically modified RNA from an unmodified transcript. Nucleic Acids Research, 2006, 34, e21-e21.	14.5	16
94	Unrestricted accessibility of short oligonucleotides to RNA. Rna, 2005, 11, 1441-1447.	3.5	10
95	Domainâ˘'Domain Communication for tRNA Aminoacylation:Â The Importance of Covalent Connectivityâ€. Biochemistry, 2005, 44, 7240-7249.	2.5	21
96	Metal-Ion-Dependent Catalysis and Specificity of CCA-Adding Enzymes:â€‰ A Comparison of Two Classes. Biochemistry, 2005, 44, 12849-12859.	2.5	15
97	Breaking the Stereo Barrier of Amino Acid Attachment to tRNA by a Single Nucleotide. Journal of Molecular Biology, 2005, 348, 513-521.	4.2	17
98	Synthesis of Cysteinyl-tRNACys by A Prolyl-tRNA Synthetase. RNA Biology, 2004, 1, 34-40.	3.1	3
99	Shape-selective RNA recognition by cysteinyl-tRNA synthetase. Nature Structural and Molecular Biology, 2004, 11, 1134-1141.	8.2	83
100	Modified Bases in RNA Reduce Secondary Structure and Enhance Hybridizationâ€. Biochemistry, 2004, 43, 10224-10236.	2.5	17
101	AlkB Restores the Biological Function of mRNA and tRNA Inactivated by Chemical Methylation. Molecular Cell, 2004, 16, 107-116.	9.7	179
102	Distinct Origins of tRNA(m1G37) Methyltransferase. Journal of Molecular Biology, 2004, 339, 707-719.	4.2	74
103	Synthesis of cysteinyl-tRNACys by a prolyl-tRNA synthetase. RNA Biology, 2004, 1, 35-41.	3.1	4
104	Association of an Aminoacyl-tRNA Synthetase with a Putative Metabolic Protein in Archaea. Biochemistry, 2003, 42, 7487-7496.	2.5	23
105	Zinc-mediated Amino Acid Discrimination in Cysteinyl-tRNA Synthetase. Journal of Molecular Biology, 2003, 327, 911-917.	4.2	48
106	Amino Acid Discrimination by a Highly Differentiated Metal Center of an Aminoacyl-tRNA Synthetase. Biochemistry, 2003, 42, 10931-10937.	2.5	28
107	Aminoacylation of an unusual tRNACys from an extreme halophile. Rna, 2003, 9, 794-801.	3.5	7
108	Aminoacyl-tRNA synthetases: Versatile players in the changing theater of translation. Rna, 2002, 8, 1363-1372.	3.5	74

#	Article	IF	Citations
109	Poly(C) Synthesis by Class I and Class II CCA-Adding Enzymes. Biochemistry, 2002, 41, 4521-4532.	2.5	32
110	Prevention of mis-aminoacylation of a dual-specificity aminoacyl-tRNA synthetase. Journal of Molecular Biology, 2002, 315, 943-949.	4.2	10
111	Amino acid activation of a dual-specificity tRNA synthetase is independent of tRNA. Journal of Molecular Biology, 2002, 316, 421-427.	4.2	9
112	Recognition of tRNA Backbone for Aminoacylation with Cysteine: Evolution from Escherichia coli to Human. Journal of Molecular Biology, 2002, 318, 1207-1220.	4.2	11
113	Structural origins of amino acid selection without editing by cysteinyl-tRNA synthetase. EMBO Journal, 2002, 21, 2778-2787.	7.8	84
114	Misacylation and Editing by Escherichia coli Valyl-tRNA Synthetase:â€‰ Evidence for Two tRNA Binding Sites. Biochemistry, 2001, 40, 8118-8125.	2.5	21
115	Divergent Adaptation of tRNA Recognition byMethanococcus jannaschii Prolyl-tRNA Synthetase. Journal of Biological Chemistry, 2001, 276, 20286-20291.	3.4	26
116	Isolation of Two cDNAs Encoding Functional Human Cytoplasmic Cysteinyl-tRNA Synthetase. Biological Chemistry, 2001, 382, 399-406.	2.5	8
117	An important 2'-OH group for an RNA-protein interaction. Nucleic Acids Research, 2001, 29, 976-985.	14.5	26
118	Recognition of functional groups in an RNA helix by a class I tRNA synthetase. Rna, 2000, 6, 922-927.	3.5	4
119	Unusual synthesis by the Escherichia coli CCA-adding enzyme. Rna, 2000, 6, 1031-1043.	3.5	34
120	Probing a tRNA core that contributes to aminoacylation. Journal of Molecular Biology, 2000, 295, 777-789.	4.2	22
121	Influence of transfer RNA tertiary structure on aminoacylation efficiency by glutaminyl and cysteinyl-tRNA synthetases 1 1Edited by J. Doudna. Journal of Molecular Biology, 2000, 299, 431-446.	4.2	25
122	Alternative design of a tRNA core for aminoacylation 1 1Edited by D. Draper. Journal of Molecular Biology, 2000, 303, 503-514.	4.2	20
123	Evidence for Unfolding of the Single-Stranded GCCA 3â€˜-End of a tRNA on Its Aminoacyl-tRNA Synthetase from a Stacked Helical to a Foldback Conformationâ€. Biochemistry, 2000, 39, 6791-6798.	2.5	6
124	Synthesis of Cysteinyl-tRNACysby a Genome That Lacks the Normal Cysteine-tRNA Synthetaseâ€. Biochemistry, 2000, 39, 7792-7798.	2.5	44
125	Evidence for a Four-Strand Exchange Catalyzed by the RecA Protein. Biochemistry, 2000, 39, 15272-15281.	2.5	26
126	Conservation of a tRNA core for aminoacylation. Nucleic Acids Research, 1999, 27, 4743-4750.	14.5	20

#	Article	IF	Citations
127	Crystallization and preliminary diffraction analysis ofEscherichia colicysteinyl-tRNA synthetase. Acta Crystallographica Section D: Biological Crystallography, 1999, 55, 1046-1047.	2.5	5
128	Transfer RNAs and pathogenicity islands. Trends in Biochemical Sciences, 1999, 24, 295-298.	7.5	72
129	An Archaeal Aminoacyl-tRNA Synthetase Missing from Genomic Analysis. Journal of Bacteriology, 1999, 181, 5880-5884.	2.2	18
130	Strand Invasion of Supercoiled DNA by Oligonucleotides with a Triplex Guide Sequence. Journal of the American Chemical Society, 1998, 120, 2182-2183.	13.7	21
131	A tRNA circularization assay: Evidence for the variation of the conformation of the CCA end. Rna, 1998, 4, 733-738.	3.5	11
132	An RNA Structural Determinant for tRNA Recognitionâ€. Biochemistry, 1997, 36, 7967-7972.	2.5	32
133	A strategy of tRNA recognition that includes determinants of RNA structure. Bioorganic and Medicinal Chemistry, 1997, 5, 1011-1019.	3.0	12
134	Discriminating among the discriminator bases of tRNAs. Chemistry and Biology, 1997, 4, 93-96.	6.0	30
135	Inhibition of tRNA Aminoacylation by 2â€˜-O-Methyl Oligonucleotidesâ€. Biochemistry, 1996, 35, 15340-15348.	2.5	9
136	Mutational Analysis of a Leucine Heptad Repeat Motif in a Class I Aminoacyl-tRNA Synthetaseâ€. Biochemistry, 1996, 35, 14405-14412.	2.5	2
137	Permutation of a Pair of Tertiary Nucleotides in a Transfer RNA. Biochemistry, 1995, 34, 2978-2984.	2.5	10
138	Enzymic Aminoacylation of tRNA Acceptor Stem Helixes with Cysteine Is Dependent on a Single Nucleotide. Biochemistry, 1995, 34, 6527-6532.	2.5	60
139	Structural Elements that Contribute to an Unusual Tertiary Interaction in a Transfer RNA. Biochemistry, 1994, 33, 4677-4681.	2.5	31
140	The tertiary structure of tRNA and the development of the genetic code. Trends in Biochemical Sciences, 1993, 18, 362-364.	7.5	10
141	Molecular dissection of a transfer RNA and the basis for its identity. Trends in Biochemical Sciences, 1989, 14, 233-237.	7.5	27
142	A simple structural feature is a major determinant of the identity of a transfer RNA. Nature, 1988, 333, 140-145.	27.8	620
143	Expression of the mouse metallothionein-I gene in Escherichia coli: Increased tolerance to heavy metals. Biochimica Et Biophysica Acta Gene Regulatory Mechanisms, 1988, 951, 230-234.	2.4	28