Ä°lyas Yildirim

List of Publications by Year
in descending order

40 papers	1,722 citations	279798 23 h-index	289244 40 g-index
42 all docs	42 docs citations	42 times ranked	1863 citing authors

#	Article	IF	Citations
1	Reparameterization of RNA Ï‡ Torsion Parameters for the AMBER Force Field and Comparison to NMR Spectra for Cytidine and Uridine. Journal of Chemical Theory and Computation, 2010, 6, 1520-1531.	5.3	155
2	Allosteric transcriptional regulation via changes in the overall topology of the core promoter. Science, 2015, 349, 877-881.	12.6	118
3	Small-molecule targeted recruitment of a nuclease to cleave an oncogenic RNA in a mouse model of metastatic cancer. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 2406-2411.	7.1	116
4	Stacking in RNA: NMR of Four Tetramers Benchmark Molecular Dynamics. Journal of Chemical Theory and Computation, 2015, 11, 2729-2742.	5.3	99
5	Benchmarking AMBER Force Fields for RNA: Comparisons to NMR Spectra for Single-Stranded r(GACC) Are Improved by Revised Ï‡ Torsions. Journal of Physical Chemistry B, 2011, 115, 9261-9270.	2.6	95
6	Testing the Nearest Neighbor Model for Canonical RNA Base Pairs: Revision of GU Parameters. Biochemistry, 2012, 51, 3508-3522.	2.5	80
7	The Hairpin Form of r(G4C2)exp in c9ALS/FTD Is Repeat-Associated Non-ATG Translated and a Target for Bioactive Small Molecules. Cell Chemical Biology, 2019, 26, 179-190.e12.	5.2	80
8	Induction and reversal of myotonic dystrophy type 1 pre-mRNA splicing defects by small molecules. Nature Communications, 2013, 4, 2044.	12.8	76
9	Methods to enable the design of bioactive small molecules targeting RNA. Organic and Biomolecular Chemistry, 2014, 12, 1029-1039.	2.8	68
10	Revision of AMBER Torsional Parameters for RNA Improves Free Energy Predictions for Tetramer Duplexes with GC and iGiC Base Pairs. Journal of Chemical Theory and Computation, 2012, 8, 172-181.	5.3	65
11	Structure of the Myotonic Dystrophy Type 2 RNA and Designed Small Molecules That Reduce Toxicity. ACS Chemical Biology, 2014, 9, 538-550.	3.4	61
12	A Dynamic Structural Model of Expanded RNA CAG Repeats: A Refined X-ray Structure and Computational Investigations Using Molecular Dynamics and Umbrella Sampling Simulations. Journal of the American Chemical Society, 2013, 135, 3528-3538.	13.7	53
13	Design of a small molecule that stimulates vascular endothelial growth factor A enabled by screening RNA foldâ€“small molecule interactions. Nature Chemistry, 2020, 12, 952-961.	13.6	51
14	A general fragment-based approach to identify and optimize bioactive ligands targeting RNA. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 33197-33203.	7.1	48
15	RNA Challenges for Computational Chemistsâ€. Biochemistry, 2005, 44, 13225-13234.	2.5	47
16	An RNA Molecular Switch: Intrinsic Flexibility of 23S rRNA Helices 40 and 68 5â€²-UAA/5â€²-GAN Internal Loops Studied by Molecular Dynamics Methods. Journal of Chemical Theory and Computation, 2010, 6, 910-929.	5.3	46
17	Interplay of LNA and 2â€²-O-Methyl RNA in the Structure and Thermodynamics of RNA Hybrid Systems: A Molecular Dynamics Study Using the Revised AMBER Force Field and Comparison with Experimental Results. Journal of Physical Chemistry B, 2014, 118, 14177-14187.	2.6	46
18	Contributions of Stacking, Preorganization, and Hydrogen Bonding to the Thermodynamic Stability of Duplexes between RNA and 2â€²-O-Methyl RNA with Locked Nucleic Acids. Biochemistry, 2009, 48, 4377-4387.	2.5	43

#	ARTICLE	IF	CITATIONS
19	Effects of Restrained Sampling Space and Nonplanar Amino Groups on Free-Energy Predictions for RNA with Imino and Sheared Tandem GA Base Pairs Flanked by GC, CG, iGiC or iCiG Base Pairs. Journal of Chemical Theory and Computation, 2009, 5, 2088-2100.	5.3	39
20	Ribonuclease recruitment using a small molecule reduced c9ALS/FTD r(G ₄ C ₂) Tj ETQq0 0 0 rgBT /Overlock 1	12.4	39
21	Zinc porphyrin: A fluorescent acceptor in studies of Zn-cytochromecunfolding by fluorescence resonance energy transfer. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 10779-10784.	7.1	37
22	Enhancing the Melting Properties of Small Molecule-DNA Hybrids through Designed Hydrophobic Interactions: An Experimental-Computational Study. Journal of the American Chemical Society, 2012, 134, 7450-7458.	13.7	33
23	Optimization of an AMBER Force Field for the Artificial Nucleic Acid, LNA, and Benchmarking with NMR of L(CAAU). Journal of Physical Chemistry B, 2014, 118, 1216-1228.	2.6	32
24	Improving Computational Predictions of Single-Stranded RNA Tetramers with Revised Î±/Î³ Torsional Parameters for the Amber Force Field. Journal of Physical Chemistry B, 2017, 121, 2989-2999.	2.6	23
25	A Small Molecule that Binds an RNA Repeat Expansion Stimulates Its Decay via the Exosome Complex. Cell Chemical Biology, 2021, 28, 34-45.e6.	5.2	23
26	Computational Investigation of RNA C<u>U</u>G Repeats Responsible for Myotonic Dystrophy 1. Journal of Chemical Theory and Computation, 2015, 11, 4943-4958.	5.3	20
27	Crystallographic and Computational Analyses of AUUCU Repeating RNA That Causes Spinocerebellar Ataxia Type 10 (SCA10). Biochemistry, 2015, 54, 3851-3859.	2.5	19
28	Structure and Dynamics of RNA Repeat Expansions That Cause Huntingtonâ€™s Disease and Myotonic Dystrophy Type 1. Biochemistry, 2017, 56, 3463-3474.	2.5	19
29	Stacking Effects on Local Structure in RNA:Â Changes in the Structure of Tandem GA Pairs when Flanking GC Pairs Are Replaced by isoGâ^isoC Pairsâ€. Journal of Physical Chemistry B, 2007, 111, 6718-6727.	2.6	17
30	An RNA molecular switch: Intrinsic flexibility of 23S rRNA Helices 40 and 68 5'-UAA/5'-GAN internal loops studied by molecular dynamics methods. Journal of Chemical Theory and Computation, 2010, 2010, 910-929.	5.3	17
31	Structural Features of Small Molecules Targeting the RNA Repeat Expansion That Causes Genetically Defined ALS/FTD. ACS Chemical Biology, 2020, 15, 3112-3123.	3.4	12
32	Hydrophobic Organic Linkers in the Self-Assembly of Small Molecule-DNA Hybrid Dimers: A Computationalâ€“Experimental Study of the Role of Linkage Direction in Product Distributions and Stabilities. Journal of Physical Chemistry B, 2014, 118, 2366-2376.	2.6	10
33	A Small Molecule Exploits Hidden Structural Features within the RNA Repeat Expansion That Causes c9ALS/FTD and Rescues Pathological Hallmarks. ACS Chemical Neuroscience, 2021, 12, 4076-4089.	3.5	8
34	Evaluating Geometric Definitions of Stacking for RNA Dinucleoside Monophosphates Using Molecular Mechanics Calculations. Journal of Chemical Theory and Computation, 2022, 18, 3637-3653.	5.3	8
35	Structure and Dynamics of Electron Injection and Charge Recombination in i-Motif DNA Conjugates. Journal of Physical Chemistry B, 2017, 121, 8058-8068.	2.6	4
36	Massively Parallel Optimization of the Linker Domain in Small Molecule Dimers Targeting a Toxic r(CUG) Repeat Expansion. ACS Medicinal Chemistry Letters, 2021, 12, 907-914.	2.8	4

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37	Computational Investigation of RNA A-Bulges Related to the Microtubule-Associated Protein Tau Causing Frontotemporal Dementia and Parkinsonism. Journal of Physical Chemistry B, 2019, 123, 57-65.	2.6	3
38	Macrocyclization of a Ligand Targeting a Toxic RNA Dramatically Improves Potency. ChemBioChem, 2020, 21, 3229-3233.	2.6	2
39	Improvement of RNA Simulations with Torsional Revisions of the AMBER Force Field. Methods in Molecular Biology, 2019, 2022, 55-74.	0.9	2
40	Computational Investigation of Bending Properties of RNA AUUCU, CCUG, CAG, and CUG Repeat Expansions Associated With Neuromuscular Disorders. Frontiers in Molecular Biosciences, 2022, 9, 830161.	3.5	2