Sua Myong

List of Publications by Year
in descending order

84 papers	7,056 citations	76326 40 h-index	71685 76 g-index
89 all docs	89 docs citations	89 times ranked	7966 citing authors

#	Article	IF	Citations
1	The disordered P granule protein LAF-1 drives phase separation into droplets with tunable viscosity and dynamics. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 7189-7194.	7.1	986
2	The transcription factor GABP selectively binds and activates the mutant TERT promoter in cancer. Science, 2015, 348, 1036-1039.	12.6	451
3	mRNA structure determines specificity of a polyQ-driven phase separation. Science, 2018, 360, 922-927.	12.6	421
4	Cytosolic Viral Sensor RIG-I Is a 5'-Triphosphateâ€“Dependent Translocase on Double-Stranded RNA. Science, 2009, 323, 1070-1074.	12.6	325
5	Real-Time Observation of RecA Filament Dynamics with Single Monomer Resolution. Cell, 2006, 126, 515-527.	28.9	285
6	Spring-Loaded Mechanism of DNA Unwinding by Hepatitis C Virus NS3 Helicase. Science, 2007, 317, 513-516.	12.6	281
7	Repetitive shuttling of a motor protein on DNA. Nature, 2005, 437, 1321-1325.	27.8	254
8	Protein induced fluorescence enhancement as a single molecule assay with short distance sensitivity. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 7414-7418.	7.1	224
9	Structural basis of G-quadruplex unfolding by the DEAH/RHA helicase DHX36. Nature, 2018, 558, 465-469.	27.8	224
10	Roles of RIG-I N-terminal tandem CARD and splice variant in TRIM25-mediated antiviral signal transduction. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 16743-16748.	7.1	219
11	Protein induced fluorescence enhancement (PIFE) for probing proteinâ€“nucleic acid interactions. Chemical Society Reviews, 2014, 43, 1221-1229.	38.1	195
12	TDP-43 represses cryptic exon inclusion in the FTDâ€“ALS gene UNC13A. Nature, 2022, 603, 124-130.	27.8	193
13	DNA-binding Orientation and Domain Conformation of the E.coli Rep Helicase Monomer Bound to a Partial Duplex Junction: Single-molecule Studies of Fluorescently Labeled Enzymes. Journal of Molecular Biology, 2004, 336, 395-408.	4.2	159
14	PcrA Helicase Dismantles RecA Filaments by Reeling in DNA in Uniform Steps. Cell, 2010, 142, 544-555.	28.9	156
15	FRET-based dynamic structural biology: Challenges, perspectives and an appeal for open-science practices. ELife, 2021, 10, .	6.0	152
16	G-quadruplex conformation and dynamics are determined by loop length and sequence. Nucleic Acids Research, 2014, 42, 8106-8114.	14.5	142
17	Oxidative guanine base damage regulates human telomerase activity. Nature Structural and Molecular Biology, 2016, 23, 1092-1100.	8.2	134
18	Loss of Dynamic RNA Interaction and Aberrant Phase Separation Induced by Two Distinct Types of ALS/FTD-Linked FUS Mutations. Molecular Cell, 2020, 77, 82-94.e4.	9.7	119

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19	POT1-TPP1 Regulates Telomeric Overhang Structural Dynamics. Structure, 2012, 20, 1872-1880.	3.3	115
20	RNA Droplets. Annual Review of Biophysics, 2020, 49, 247-265.	10.0	102
21	Ubiquilin 2 modulates ALS/FTD-linked FUSâ€“RNA complex dynamics and stress granule formation. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E11485-E11494.	7.1	100
22	Srs2 prevents Rad51 filament formation by repetitive motion on DNA. Nature Communications, 2013, 4, 2281.	12.8	86
23	Single-molecule imaging reveals a common mechanism shared by G-quadruplexâ€“resolving helicases. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 8448-8453.	7.1	85
24	FUS Regulates Activity of MicroRNA-Mediated Gene Silencing. Molecular Cell, 2018, 69, 787-801.e8.	9.7	76
25	ATP Hydrolysis Enhances RNA Recognition and Antiviral Signal Transduction by the Innate Immune Sensor, Laboratory of Genetics and Physiology 2 (LGP2). Journal of Biological Chemistry, 2013, 288, 938-946.	3.4	74
26	G-quadruplex formation in double strand DNA probed by NMM and CV fluorescence. Nucleic Acids Research, 2015, 43, 7961-7970.	14.5	74
27	Nanopore-Based Assay for Detection of Methylation in Double-Stranded DNA Fragments. ACS Nano, 2015, 9, 290-300.	14.6	73
28	R-loop induced G-quadruplex in non-template promotes transcription by successive R-loop formation. Nature Communications, 2020, 11, 3392.	12.8	71
29	RNA promotes phase separation of glycolysis enzymes into yeast G bodies in hypoxia. ELife, 2020, 9, .	6.0	70
30	ATP-independent diffusion of double-stranded RNA binding proteins. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 151-156.	7.1	62
31	Telomeric Overhang Length Determines Structural Dynamics and Accessibility to Telomerase and ALT-Associated Proteins. Structure, 2014, 22, 842-853.	3.3	62
32	ALS/FTLD-Linked Mutations in FUS Glycine Residues Cause Accelerated Gelation and Reduced Interactions with Wild-Type FUS. Molecular Cell, 2020, 80, 666-681.e8.	9.7	62
33	Molecular mechanisms by which oxidative DNA damage promotes telomerase activity. Nucleic Acids Research, 2017, 45, 11752-11765.	14.5	58
34	Rotations of the 2B Sub-domain of E. coli UvrD Helicase/Translocase Coupled to Nucleotide and DNA Binding. Journal of Molecular Biology, 2011, 411, 633-648.	4.2	57
35	RNA G-quadruplex is resolved by repetitive and ATP-dependent mechanism of DHX36. Nature Communications, 2019, 10, 1855.	12.8	56
36	Bridging Conformational Dynamics and Function Using Single-Molecule Spectroscopy. Structure, 2006, 14, 633-643.	3.3	53

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37	Dynamic profiling of double-stranded RNA binding proteins. Nucleic Acids Research, 2015, 43, 7566-7576.	14.5	53
38	Single Molecule Nanocontainers Made Porous Using a Bacterial Toxin. Journal of the American Chemical Society, 2009, 131, 14844-14849.	13.7	52
39	RNA Remodeling Activity of DEAD Box Proteins Tuned by Protein Concentration, RNA Length, and ATP. Molecular Cell, 2016, 63, 865-876.	9.7	51
40	The Chd1 Chromatin Remodeler Shifts Nucleosomal DNA Bidirectionally as a Monomer. Molecular Cell, 2017, 68, 76-88.e6.	9.7	50
41	Stepwise translocation of nucleic acid motors. Current Opinion in Structural Biology, 2010, 20, 121-127.	5.7	47
42	A guanine-flipping and sequestration mechanism for G-quadruplex unwinding by RecQ helicases. Nature Communications, 2018, 9, 4201.	12.8	46
43	A Helicase Unwinds Hexanucleotide Repeat RNA G-Quadruplexes and Facilitates Repeat-Associated Non-AUG Translation. Journal of the American Chemical Society, 2021, 143, 7368-7379.	13.7	43
44	Poly(ADP-ribose) drives condensation of FUS via a transient interaction. Molecular Cell, 2022, 82, 969-985.e11.	9.7	41
45	Repetitive RNA unwinding by RNA helicase A facilitates RNA annealing. Nucleic Acids Research, 2014, 42, 8556-8564.	14.5	39
46	Single-molecule real-time detection of telomerase extension activity. Scientific Reports, 2014, 4, 6391.	3.3	37
47	Unraveling helicase mechanisms one molecule at a time. Nucleic Acids Research, 2006, 34, 4225-4231.	14.5	28
48	Methods to Study Phase-Separated Condensates and the Underlying Molecular Interactions. Trends in Biochemical Sciences, 2020, 45, 1004-1005.	7.5	28
49	Is transcriptional regulation just going through a phase?. Molecular Cell, 2021, 81, 1579-1585.	9.7	27
50	E. coli Rep helicase and RecA recombinase unwind G4 DNA and are important for resistance to G4-stabilizing ligands. Nucleic Acids Research, 2020, 48, 6640-6653.	14.5	24
51	Position-Dependent Effect of Guanine Base Damage and Mutations on Telomeric G-Quadruplex and Telomerase Extension. Biochemistry, 2020, 59, 2627-2639.	2.5	21
52	Quantitative analysis and prediction of G-quadruplex forming sequences in double-stranded DNA. Nucleic Acids Research, 2016, 44, 4807-4817.	14.5	20
53	Regeneration of PEG slide for multiple rounds of single-molecule measurements. Biophysical Journal, 2021, 120, 1788-1799.	0.5	19
54	Next generation single-molecule techniques: Imaging, labeling, and manipulation inÂvitro and in cellulo. Molecular Cell, 2022, 82, 304-314.	9.7	17

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55	G-Quadruplex and Protein Binding by Single-Molecule FRET Microscopy. Methods in Molecular Biology, 2019, 2035, 309-322.	0.9	15
56	The yeast Hrq1 helicase stimulates Pso2 translesion nuclease activity and thereby promotes DNA interstrand crosslink repair. Journal of Biological Chemistry, 2020, 295, 8945-8957.	3.4	12
57	Single-Molecule Nanopositioning: Structural Transitions of a Helicase-DNA Complex during ATP Hydrolysis. Biophysical Journal, 2011, 101, 976-984.	0.5	11
58	Single-molecule and ensemble methods to probe RNP nucleation and condensate properties. Methods, 2022, 197, 74-81.	3.8	11
59	Protocol for generation and regeneration of PEG-passivated slides for single-molecule measurements. STAR Protocols, 2022, 3, 101152.	1.2	11
60	RNA Scanning of a Molecular Machine with a Built-in Ruler. Journal of the American Chemical Society, 2017, 139, 262-268.	13.7	10
61	Just Took a DNA Test, Turns Out 100% Not That Phase. Molecular Cell, 2020, 78, 193-194.	9.7	10
62	Antigenic Variation in Neisseria gonorrhoeae Occurs Independently of RecQ-Mediated Unwinding of the pilE G Quadruplex. Journal of Bacteriology, 2020, 202, .	2.2	9
63	Context-Dependent Remodeling of Rad51â€“DNA Complexes by Srs2 Is Mediated by a Specific Proteinâ€“Protein Interaction. Journal of Molecular Biology, 2014, 426, 1883-1897.	4.2	8
64	Single-Molecule and Ensemble Methods to Probe Initial Stages of RNP Granule Assembly. Methods in Molecular Biology, 2018, 1814, 325-338.	0.9	8
65	TRF2 promotes dynamic and stepwise looping of POT1 bound telomeric overhang. Nucleic Acids Research, 2021, 49, 12377-12393.	14.5	8
66	Molecular Mechanism of Resolving Trinucleotide Repeat Hairpin by Helicases. Structure, 2015, 23, 1018-1027.	3.3	6
67	Visualizing repetitive diffusion activity of double-strand RNA binding proteins by single molecule fluorescence assays. Methods, 2016, 105, 109-118.	3.8	6
68	Single-Molecule Imaging With One Color Fluorescence. Methods in Enzymology, 2016, 581, 33-51.	1.0	6
69	Probing steps in DNA transcription using single-molecule methods. Journal of Biological Chemistry, 2021, 297, 101086.	3.4	6
70	RNA stem structure governs coupling of dicing and gene silencing in RNA interference. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E10349-E10358.	7.1	5
71	Vectorial folding of telomere overhang promotes higher accessibility. Nucleic Acids Research, 2022, 50, 6271-6283.	14.5	4
72	Single-Cell Imaging Approaches for Studying Small-RNA-Induced Gene Regulation. Biophysical Journal, 2018, 115, 203-208.	0.5	2

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73	Detection of Methylation on dsDNA at Single-Molecule Level using Solid-State Nanopores. Biophysical Journal, 2018, 114, 216a.	0.5	1
74	Probing Dynamic Assembly and Disassembly of Rad51 Tuned by Srs2 Using smFRET. Methods in Enzymology, 2018, 600, 321-345.	1.0	1
75	Editorial overview: Advances and future prospects of molecular imaging for studying and quantifying biological processes. Current Opinion in Chemical Biology, 2019, 51, A4-A5.	6.1	1
76	Single molecule probing of disordered RNA binding proteins. STAR Protocols, 2022, 3, 101131.	1.2	1
77	Characterization of Single Molecule Protein Induced Fluorescence Enhancement (PIFE) as an Alternative to SmFRET. Biophysical Journal, 2010, 98, 590a.	0.5	0
78	Single Molecule Detection of One, Two and Multiplex Proteins Involved in DNA/RNA Transaction. Cellular and Molecular Bioengineering, 2011, 4, 125-137.	2.1	0
79	Single Molecule Imaging of Proteins That Recognize and Repair DNA Damages. IEEE Journal of Selected Topics in Quantum Electronics, 2014, 20, 223-231.	2.9	0
80	Quantitative Analysis of RNA Interference by mRNA Couting at Single-Cell Level. Biophysical Journal, 2015, 108, 364a.	0.5	0
81	Single molecule probing by fluorescence and force detection. Methods, 2016, 105, 1-2.	3.8	0
82	Systematic and Quantitative Analysis of G-Quadruplex DNA Folding. Biophysical Journal, 2016, 110, 565a.	0.5	0
83	Evolving Methods in Defining the Role of RNA in RNP Assembly. Biological and Medical Physics Series, 2019, , 39-55.	0.4	0
84	Helicase mediated vectorial folding of telomere G-quadruplex. Methods in Enzymology, 2022, , 283-297.	1.0	0