Chirlmin Joo

List of Publications by Year
in descending order

89	7,445	36	75
papers	citations	h-index	g-index
		101543	74163

107	107	107	7794
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Exploring molecular biology in sequence space: The road to next-generation single-molecule biophysics. Molecular Cell, 2022, 82, 1788-1805.	9.7	3
2	Small RNA-directed DNA elimination: the molecular mechanism and its potential for genome editing. RNA Biology, 2021, 18, 1540-1545.	3.1	3
3	FRET-based dynamic structural biology: Challenges, perspectives and an appeal for open-science practices. ELife, 2021, 10, .	6.0	152
4	High-Resolution Single-Molecule FRET via DNA eXchange (FRET X). Nano Letters, 2021, 21, 3295-3301.	9.1	21
5	Targeting G-quadruplex Forming Sequences with Cas9. ACS Chemical Biology, 2021, 16, 596-603.	3.4	11
6	AutoStepfinder: A fast and automated step detection method for single-molecule analysis. Patterns, 2021, 2, 100256.	5.9	29
7	The emerging landscape of single-molecule protein sequencing technologies. Nature Methods, 2021, 18, 604-617.	19.0	198
8	Completing the canvas: advances and challenges for DNA-PAINT super-resolution imaging. Trends in Biochemical Sciences, 2021, 46, 918-930.	7.5	23
9	FRETboard: Semisupervised classification of FRET traces. Biophysical Journal, 2021, 120, 3253-3260.	0.5	7
10	Drift correction in localization microscopy using entropy minimization. Optics Express, 2021, 29, 27961.	3.4	14
11	Leaders of the field: What does the future hold for single molecule technology?. IScience, 2021, 24, 103161.	4.1	0
12	Evaluation of FRET X for single-molecule protein fingerprinting. IScience, 2021, 24, 103239.	4.1	18
13	mRNA structural dynamics shape Argonaute-target interactions. Nature Structural and Molecular Biology, 2020, 27, 790-801.	8.2	32
14	Tetrameric architecture of an active phenol-bound form of the AAA+ transcriptional regulator DmpR. Nature Communications, 2020, 11, 2728.	12.8	12
15	Conditional Copperâ€Catalyzed Azideâ€"Alkyne Cycloaddition by Catalyst Encapsulation. Angewandte Chemie - International Edition, 2020, 59, 9340-9344.	13.8	33
16	High-Speed Super-Resolution Imaging Using Protein-Assisted DNA-PAINT. Nano Letters, 2020, 20, 2264-2270.	9.1	45
17	Selective loading and processing of prespacers for precise CRISPR adaptation. Nature, 2020, 579, 141-145.	27.8	46
18	Label-Free Detection of Post-translational Modifications with a Nanopore. Nano Letters, 2019, 19, 7957-7964.	9.1	88

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19	Resolving Chemical Modifications to a Single Amino Acid within a Peptide Using a Biological Nanopore. ACS Nano, 2019, 13, 13668-13676.	14.6	76
20	Argonaute bypasses cellular obstacles without hindrance during target search. Nature Communications, 2019, 10, 4390.	12.8	16
21	Electro-Mechanical Conductance Modulation of a Nanopore Using a Removable Gate. ACS Nano, 2019, 13, 2398-2409.	14.6	16
22	Facilitated diffusion of Argonaute-mediated target search. RNA Biology, 2019, 16, 1093-1107.	3.1	7
23	DNA-guided DNA cleavage at moderate temperatures by Clostridium butyricum Argonaute. Nucleic Acids Research, 2019, 47, 5809-5821.	14.5	115
24	Single-Molecule Protein Fingerprinting using Nanopores. Biophysical Journal, 2019, 116, 316a.	0.5	1
25	<scp>CRISPR</scp> /Cas9 searches for a protospacer adjacent motif by lateral diffusion. EMBO Journal, 2019, 38, .	7.8	80
26	Single-molecule FRET studies of Cas9 endonuclease. Methods in Enzymology, 2019, 616, 313-335.	1.0	5
27	Biophysics of RNA-Guided CRISPR Immunity. Biological and Medical Physics Series, 2019, , 189-210.	0.4	0
28	Viral suppressors of RNAi employ a rapid screening mode to discriminate viral RNA from cellular small RNA. Nucleic Acids Research, 2018, 46, 3187-3197.	14.5	8
29	Repetitive DNA Reeling by the Cascade-Cas3 Complex in Nucleotide Unwinding Steps. Molecular Cell, 2018, 70, 385-394.e3.	9.7	54
30	Single-Molecule View of Small RNAâ€"Guided Target Search and Recognition. Annual Review of Biophysics, 2018, 47, 569-593.	10.0	12
31	Single-molecule peptide fingerprinting. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 3338-3343.	7.1	64
32	Helixâ€7 in Argonaute2 shapes the microRNA seed region for rapid target recognition. EMBO Journal, 2018, 37, 75-88.	7.8	63
33	Paving the way to single-molecule protein sequencing. Nature Nanotechnology, 2018, 13, 786-796.	31.5	292
34	Multiplex Single-Molecule DNA Barcoding Using an Oligonucleotide Ligation Assay. Biophysical Journal, 2018, 115, 957-967.	0.5	11
35	Probing RNAâ€"Protein Interactions with Single-Molecule Pull-Down Assays. Methods in Molecular Biology, 2018, 1814, 267-285.	0.9	0
36	Single-Molecule Protein Fingerprinting with Nanopores. Biophysical Journal, 2017, 112, 330a.	0.5	1

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37	Autonomous Generation and Loading of DNA Guides by Bacterial Argonaute. Molecular Cell, 2017, 65, 985-998.e6.	9.7	103
38	Argonaute Target Search is Facilitated by Long Distance Diffusion. Biophysical Journal, 2017, 112, 314a.	0.5	0
39	Single-Molecule Peptide Fingerprinting. Biophysical Journal, 2017, 112, 471a.	0.5	2
40	Shedding Light on Cas9 Target Search. Biophysical Journal, 2017, 112, 71a.	0.5	0
41	Repetitive Loop Formation by the CRISPR-Cas3 Helicase. Biophysical Journal, 2017, 112, 71a.	0.5	0
42	Single-Molecule Fluorescence Study of RNA Recognition by Viral RNAi Suppressors. Biophysical Journal, 2017, 112, 151a.	0.5	0
43	Engineering ClpXP for Single-Molecule Protein Sequencing. Biophysical Journal, 2017, 112, 151a.	0.5	1
44	RecA filament maintains structural integrity using ATP-driven internal dynamics. Science Advances, 2017, 3, e1700676.	10.3	21
45	SDS-assisted protein transport through solid-state nanopores. Nanoscale, 2017, 9, 11685-11693.	5.6	67
46	Why Argonaute is needed to make microRNA target search fast and reliable. Seminars in Cell and Developmental Biology, 2017, 65, 20-28.	5.0	41
47	TRBP ensures efficient Dicer processing of precursor microRNA in RNA-crowded environments. Nature Communications, 2016, 7, 13694.	12.8	80
48	Single-molecule pull-down for investigating proteinâ€“nucleic acid interactions. Methods, 2016, 105, 99-108.	3.8	12
49	Water-mediated recognition of t1-adenosine anchors Argonaute2 to microRNA targets. ELife, 2015, 4, .	6.0	78
50	<scp>TUT</scp> 7 controls the fate of precursor micro <scp>RNA</scp> s by using three different uridylation mechanisms. EMBO Journal, 2015, 34, 1801-1815.	7.8	97
51	Two Distinct DNA Binding Modes Guide Dual Roles of a CRISPR-Cas Protein Complex. Molecular Cell, 2015, 58, 60-70.	9.7	100
52	A Dynamic Search Process Underlies MicroRNA Targeting. Cell, 2015, 162, 96-107.	28.9	241
53	Single-molecule protein sequencing through fingerprinting: computational assessment. Physical Biology, 2015, 12, 055003.	1.8	53
54	Dynamic Growth and Shrinkage Govern the pH Dependence of RecA Filament Stability. PLoS ONE, 2015, 10, e0115611.	2.5	9

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55	Distinct mechanisms regulating mechanical force-induced Ca2+ signals at the plasma membrane and the ER in human MSCs. ELife, 2015, 4, e04876.	6.0	90
56	Defense Against Viral Attack: Single-Molecule View on a Bacterial Adaptive Immune System. Biophysical Journal, 2014, 106, 22a.	0.5	0
57	Cooperative Conformational Transitions Keep RecA Filament Active During ATPase Cycle. Journal of the American Chemical Society, 2014, 136, 14796-14800.	13.7	24
58	Weak Interactions between Risc and mRNA Promote Optimal Targeting in RNA Interference. Biophysical Journal, 2014, 106, 496a.	0.5	0
59	Single-Molecule View on the Duality of Microrna Uridylation. Biophysical Journal, 2014, 106, 698a.	0.5	0
60	Surface Passivation for Single-molecule Protein Studies. Journal of Visualized Experiments, 2014, , .	0.3	153
61	Unfolding and Degradation of Proteins by ClpXP Monitored with Single Molecule FRET. Biophysical Journal, 2013, 104, 515a.	0.5	0
62	RecA Filament Migration on a Single-Stranded DNA. Biophysical Journal, 2013, 104, 77a.	0.5	0
63	The ATP Hydrolysis Cycle and the Corresponding Motion of RecA Filament on Single-Stranded DNA. Biophysical Journal, 2013, 104, 541a.	0.5	0
64	Bringing single-molecule spectroscopy to macromolecular protein complexes. Trends in Biochemical Sciences, 2013, 38, 30-37.	7.5	24
65	Molecular mechanism of sequence-dependent stability of RecA filament. Nucleic Acids Research, 2013, 41, 7738-7744.	14.5	6
66	Preparing Sample Chambers for Single-Molecule FRET. Cold Spring Harbor Protocols, 2012, 2012, pdb.prot071530.	0.3	59
67	Objective-Type Total Internal Reflection Microscopy (Excitation) for Single-Molecule FRET. Cold Spring Harbor Protocols, 2012, 2012, pdb.prot072025.	0.3	1
68	Single-Molecule FRET with Total Internal Reflection Microscopy. Cold Spring Harbor Protocols, 2012, 2012, pdb.top072058.	0.3	57
69	Imaging and Identifying Impurities in Single-Molecule FRET Studies. Cold Spring Harbor Protocols, 2012, 2012, pdb.prot071548-pdb.prot071548.	0.3	5
70	Objective-Type Total Internal Reflection Microscopy (Emission) for Single-Molecule FRET. Cold Spring Harbor Protocols, 2012, 2012, pdb.prot072033.	0.3	5
71	Prism-Type Total Internal Reflection Microscopy for Single-Molecule FRET. Cold Spring Harbor Protocols, 2012, 2012, pdb.prot072041-pdb.prot072041.	0.3	5
72	Single Molecule Observation of MicroRNA Processing Enzymes at Action. Biophysical Journal, 2012, 102, 486a.	0.5	0

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73	Labeling Proteins for Single-Molecule FRET. Cold Spring Harbor Protocols, 2012, 2012, pdb.prot071035-pdb.prot071035.	0.3	7
74	Labeling DNA (or RNA) for Single-Molecule FRET. Cold Spring Harbor Protocols, 2012, 2012, pdb.prot071027-pdb.prot071027.	0.3	20
75	A single vesicle-vesicle fusion assay for in vitro studies of SNAREs and accessory proteins. Nature Protocols, 2012, 7, 921-934.	12.0	98
76	Real-Time Observation of Strand Exchange Reaction with High Spatiotemporal Resolution. Structure, 2011, 19, 1064-1073.	3.3	64
77	Singleâ€molecule approach to immunoprecipitated protein complexes: insights into miRNA uridylation. EMBO Reports, 2011, 12, 690-696.	4.5	70
78	Singleâ€Molecule Fourâ€Color FRET. Angewandte Chemie - International Edition, 2010, 49, 9922-9925.	13.8	148
79	Single-Molecule Study on Microrna Machineries: Micrornaprocessing With Immunoprecipitates At the Single-Molecule Level. Biophysical Journal, 2010, 98, 75a.	0.5	0
80	TUT4 in Concert with Lin28 Suppresses MicroRNA Biogenesis through Pre-MicroRNA Uridylation. Cell, 2009, 138, 696-708.	28.9	730
81	Advances in Single-Molecule Fluorescence Methods for Molecular Biology. Annual Review of Biochemistry, 2008, 77, 51-76.	11.1	673
82	Lin28 Mediates the Terminal Uridylation of let-7 Precursor MicroRNA. Molecular Cell, 2008, 32, 276-284.	9.7	885
83	Single Molecule Studies of Protein-DNA Interactions inside Porous Nanocontainers. , 2008, , .		0
84	Fueling protein DNA interactions inside porous nanocontainers. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 12646-12650.	7.1	159
85	Analysis of Single-Molecule FRET Trajectories Using Hidden Markov Modeling. Biophysical Journal, 2006, 91, 1941-1951.	0.5	690
86	Real-Time Observation of RecA Filament Dynamics with Single Monomer Resolution. Cell, 2006, 126, 515-527.	28.9	285
87	Repetitive shuttling of a motor protein on DNA. Nature, 2005, 437, 1321-1325.	27.8	254
88	Single-Molecule Three-Color FRET. Biophysical Journal, 2004, 87, 1328-1337.	0.5	320
89	Exploring Rare Conformational Species and Ionic Effects in DNA Holliday Junctions Using Single-molecule Spectroscopy. Journal of Molecular Biology, 2004, 341, 739-751.	4.2	111