Sungchul Hohng

List of Publications by Year
in descending order

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65	6,036	136950	106344
papers	citations	32 h-index	65 g-index

73	73	73	7393
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A practical guide to single-molecule FRET. Nature Methods, 2008, 5, 507-516.	19.0	1,857
2	Near-Complete Suppression of Quantum Dot Blinking in Ambient Conditions. Journal of the American Chemical Society, 2004, 126, 1324-1325.	13.7	485
3	Single-Molecule Three-Color FRET. Biophysical Journal, 2004, 87, 1328-1337.	0.5	320
4	Functional Anatomy of the Human Microprocessor. Cell, 2015, 161, 1374-1387.	28.9	315
5	Fluorescence-Force Spectroscopy Maps Two-Dimensional Reaction Landscape of the Holliday Junction. Science, 2007, 318, 279-283.	12.6	270
6	Structure of Human DROSHA. Cell, 2016, 164, 81-90.	28.9	187
7	Human Argonaute 2 Has Diverse Reaction Pathways on Target RNAs. Molecular Cell, 2015, 59, 117-124.	9.7	166
8	Single-Molecule Quantum-Dot Fluorescence Resonance Energy Transfer. ChemPhysChem, 2005, 6, 956-960.	2.1	155
9	FRET-based dynamic structural biology: Challenges, perspectives and an appeal for open-science practices. ELife, 2021, 10, .	6.0	152
10	Singleâ€Molecule Fourâ€Color FRET. Angewandte Chemie - International Edition, 2010, 49, 9922-9925.	13.8	148
11	Kinetic mechanism for viral dsRNA length discrimination by MDA5 filaments. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E3340-9.	7.1	118
12	Protein conformational dynamics dictate the binding affinity for a ligand. Nature Communications, 2014, 5, 3724.	12.8	113
13	A single-molecule dissection of ligand binding to a protein with intrinsic dynamics. Nature Chemical Biology, 2013, 9, 313-318.	8.0	105
14	Observation of internal cleavage and ligation reactions of a ribozyme. Nature Structural and Molecular Biology, 2004, 11, 1107-1113.	8.2	104
15	Single-Molecule Three-Color FRET with Both Negligible Spectral Overlap and Long Observation Time. PLoS ONE, 2010, 5, e12270.	2.5	95
16	Intrinsic Z-DNA Is Stabilized by the Conformational Selection Mechanism of Z-DNA-Binding Proteins. Journal of the American Chemical Society, 2011, 133, 668-671.	13.7	92
17	Conformational Flexibility of Four-way Junctions in RNA. Journal of Molecular Biology, 2004, 336, 69-79.	4.2	86
18	Spectroscopic observation of RNA chaperone activities of Hfq in post-transcriptional regulation by a small non-coding RNA. Nucleic Acids Research, 2007, 35, 999-1006.	14.5	86

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19	Hidden complexity in the isomerization dynamics of Holliday junctions. Nature Chemistry, 2012, 4, 907-914.	13.6	85
20	Maximizing information content of single-molecule FRET experiments: multi-color FRET and FRET combined with force or torque. Chemical Society Reviews, 2014, 43, 1007-1013.	38.1	81
21	Structural basis of recognition and destabilization of the histone H2B ubiquitinated nucleosome by the DOT1L histone H3 Lys79 methyltransferase. Genes and Development, 2019, 33, 620-625.	5.9	73
22	Singleâ€molecule approach to immunoprecipitated protein complexes: insights into miRNA uridylation. EMBO Reports, 2011, 12, 690-696.	4.5	70
23	Dynamic competition of DsrA and rpoS fragments for the proximal binding site of Hfq as a means for efficient annealing. Nucleic Acids Research, 2011, 39, 5131-5139.	14.5	58
24	DNA cleavage and opening reactions of human topoisomerase IIÎ± are regulated via Mg ²⁺ -mediated dynamic bending of gate-DNA. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 2925-2930.	7.1	56
25	Quantification of purified endogenous miRNAs with high sensitivity and specificity. Nature Communications, 2020, 11, 6033.	12.8	55
26	Single-molecule FRET studies on the cotranscriptional folding of a thiamine pyrophosphate riboswitch. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 331-336.	7.1	49
27	Dynamic Anchoring of the 3â€²-End of the Guide Strand Controls the Target Dissociation of Argonauteâ€“Guide Complex. Journal of the American Chemical Society, 2013, 135, 16865-16871.	13.7	47
28	Distinct Z-DNA binding mode of a PKR-like protein kinase containing a Z-DNA binding domain (PKZ). Nucleic Acids Research, 2014, 42, 5937-5948.	14.5	46
29	Accelerated super-resolution imaging with FRET-PAINT. Molecular Brain, 2017, 10, 63.	2.6	44
30	AUF1 promotes let-7b loading on Argonaute 2. Genes and Development, 2015, 29, 1599-1604.	5.9	41
31	AUF1 facilitates microRNA-mediated gene silencing. Nucleic Acids Research, 2017, 45, 6064-6073.	14.5	40
32	Video-Rate Confocal Microscopy for Single-Molecule Imaging in Live Cells and Superresolution Fluorescence Imaging. Biophysical Journal, 2012, 103, 1691-1697.	0.5	38
33	ATAD5 promotes replication restart by regulating RAD51 and PCNA in response to replication stress. Nature Communications, 2019, 10, 5718.	12.8	35
34	Single-molecule fluorescence studies on cotranscriptional G-quadruplex formation coupled with R-loop formation. Nucleic Acids Research, 2020, 48, 9195-9203.	14.5	31
35	An Optical Trap Combined with Three-Color FRET. Journal of the American Chemical Society, 2013, 135, 18260-18263.	13.7	30
36	ATP Binding to Rad5 Initiates Replication Fork Reversal by Inducing the Unwinding of the Leading Arm and the Formation of the Holliday Junction. Cell Reports, 2018, 23, 1831-1839.	6.4	30

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37	Multiple RPAs make WRN syndrome protein a superhelicase. Nucleic Acids Research, 2018, 46, 4689-4698.	14.5	28
38	NAP1L1 accelerates activation and decreases pausing to enhance nucleosome remodeling by CSB. Nucleic Acids Research, 2017, 45, 4696-4707.	14.5	25
39	Accelerated FRET-PAINT microscopy. Molecular Brain, 2018, 11, 70.	2.6	25
40	Transcription reinitiation by recycling RNA polymerase that diffuses on DNA after releasing terminated RNA. Nature Communications, 2020, 11, 450.	12.8	25
41	Autofocusing system based on optical astigmatism analysis of single-molecule images. Optics Express, 2012, 20, 29353.	3.4	15
42	Increased PKMÎ¶ activity impedes lateral movement of GluA2-containing AMPA receptors. Molecular Brain, 2017, 10, 56.	2.6	15
43	Z-DNA stabilization is dominated by the Hofmeister effect. Physical Chemistry Chemical Physics, 2013, 15, 15829.	2.8	13
44	Superresolution fluorescence microscopy for 3D reconstruction of thick samples. Molecular Brain, 2018, 11, 17.	2.6	13
45	Rho-dependent transcription termination proceeds via three routes. Nature Communications, 2022, 13, 1663.	12.8	13
46	Energetics of Z-DNA Binding Protein-Mediated Helicity Reversals in DNA, RNA, and DNAâ€“RNA Duplexes. Journal of Physical Chemistry B, 2013, 117, 13866-13871.	2.6	11
47	Active Control of Repetitive Structural Transitions between Replication Forks and Holliday Junctions by Werner Syndrome Helicase. Structure, 2016, 24, 1292-1300.	3.3	10
48	Extended depth of field for single biomolecule optical imaging-force spectroscopy. Optics Express, 2017, 25, 32189.	3.4	7
49	Single-molecule fluorescence measurements reveal the reaction mechanisms of the core-RISC, composed of human Argonaute 2 and a guide RNA. BMB Reports, 2015, 48, 643-644.	2.4	7
50	Hopping and Flipping of RNA Polymerase on DNA during Recycling for Reinitiation after Intrinsic Termination in Bacterial Transcription. International Journal of Molecular Sciences, 2021, 22, 2398.	4.1	6
51	Dicer Nuclease‐Promoted Production of Let7a‐1 MicroRNA Is Enhanced in the Presence of Tryptophan‐Containing Amphiphilic Peptides. ChemBioChem, 2014, 15, 1651-1659.	2.6	5
52	Morphological analysis of oligomeric vs. fibrillar forms of Î±-synuclein aggregates with super-resolution BALM imaging. Chemical Physics Letters, 2017, 690, 62-67.	2.6	5
53	Mechanisms of the Binding/Dissociation Acceleration of the Target–Guide Interaction by Thermus thermophilus Argonaute. Bulletin of the Korean Chemical Society, 2018, 39, 167-173.	1.9	5
54	Structure-based elucidation of the regulatory mechanism for aminopeptidase activity. Acta Crystallographica Section D: Biological Crystallography, 2013, 69, 1738-1747.	2.5	4

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55	A Novel N-terminal Region to Chromodomain in CHD7 is Required for the Efficient Remodeling Activity. Journal of Molecular Biology, 2021, 433, 167114.	4.2	4
56	Ligand Recognition Mechanism of Thiamine Pyrophosphate Riboswitch Aptamer. Bulletin of the Korean Chemical Society, 2017, 38, 1465-1473.	1.9	3
57	Subâ€Diffraction Limit Imaging of Inorganic Nanowire Networks Interfacing Cells. Small, 2014, 10, 462-468.	10.0	2
58	Singleâ€Molecule FRET Combined with Magnetic Tweezers at Low Force Regime. Bulletin of the Korean Chemical Society, 2016, 37, 408-410.	1.9	2
59	Yeast Chd1p Unwraps the Exit Side DNA upon ATP Binding to Facilitate the Nucleosome Translocation Occurring upon ATP Hydrolysis. Biochemistry, 2020, 59, 4481-4487.	2.5	2
60	Single-Molecule FRET Assay for Studying Cotranscriptional RNA Folding. Methods in Molecular Biology, 2020, 2106, 271-282.	0.9	2
61	Single-Molecule Fluorescence Energy Transfer Assays for the Characterization of Reaction Pathways of miRNA-Argonaute Complex. Methods in Molecular Biology, 2017, 1517, 305-315.	0.9	1
62	Realâ€Time Monitoring of the Binding/Dissociation and Redox States of a Single Transition Metal Ions. Bulletin of the Korean Chemical Society, 2018, 39, 638-642.	1.9	1
63	Werner Syndrome Protein Forms a Bidirectional Fork Regression Motor Whose Direction is Switched at DNA Modifications. Biophysical Journal, 2013, 104, 74a.	0.5	0
64	Single-molecule Fluorescence Technique to Monitor the Co-transcriptional Formation of G-quadruplex and R-loop Structures. Bio-protocol, 2021, 11, e4069.	0.4	0
65	Single-Molecule FRET. , 2005, , 165-179.		0