Beat Fierz

List of Publications by Year in descending order

57 papers	3,024 citations	218381 26 h-index	205818 48 g-index
70 all docs	70 docs citations	70 times ranked	3375 citing authors

#	Article	IF	Citations
1	Histone H2B ubiquitylation disrupts local and higher-order chromatin compaction. Nature Chemical Biology, 2011, 7, 113-119.	3.9	392
2	Dynamics of Unfolded Polypeptide Chains as Model for the Earliest Steps in Protein Folding. Journal of Molecular Biology, 2003, 332, 265-274.	2.0	248
3	Disulfide-directed histone ubiquitylation reveals plasticity in hDot1L activation. Nature Chemical Biology, 2010, 6, 267-269.	3.9	227
4	Structural mechanism of cGAS inhibition by theÂnucleosome. Nature, 2020, 587, 668-672.	13.7	157
5	Accelerated chromatin biochemistry using DNA-barcoded nucleosome libraries. Nature Methods, 2014, 11, 834-840.	9.0	129
6	BAF restricts cGAS on nuclear DNA to prevent innate immune activation. Science, 2020, 369, 823-828.	6.0	125
7	Single-molecule FRET reveals multiscale chromatin dynamics modulated by HP1Î±. Nature Communications, 2018, 9, 235.	5.8	113
8	Chromatin as an expansive canvas for chemical biology. Nature Chemical Biology, 2012, 8, 417-427.	3.9	109
9	DNA binding by PHF1 prolongs PRC2 residence time on chromatin and thereby promotes H3K27 methylation. Nature Structural and Molecular Biology, 2017, 24, 1039-1047.	3.6	105
10	Biophysics of Chromatin Dynamics. Annual Review of Biophysics, 2019, 48, 321-345.	4.5	102
11	Multivalency governs HP1Î± association dynamics with the silent chromatin state. Nature Communications, 2015, 6, 7313.	5.8	94
12	A two-state activation mechanism controls the histone methyltransferase Suv39h1. Nature Chemical Biology, 2016, 12, 188-193.	3.9	90
13	Stability of Nucleosomes Containing Homogenously Ubiquitylated H2A and H2B Prepared Using Semisynthesis. Journal of the American Chemical Society, 2012, 134, 19548-19551.	6.6	83
14	Loop formation in unfolded polypeptide chains on the picoseconds to microseconds time scale. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 2163-2168.	3.3	70
15	Sumoylated Human Histone H4 Prevents Chromatin Compaction by Inhibiting Long-range Internucleosomal Interactions. Journal of Biological Chemistry, 2014, 289, 33827-33837.	1.6	69
16	End-to-End vs Interior Loop Formation Kinetics in Unfolded Polypeptide Chains. Journal of the American Chemical Society, 2007, 129, 672-679.	6.6	67
17	Chromatin Fiber Invasion and Nucleosome Displacement by the Rap1 Transcription Factor. Molecular Cell, 2020, 77, 488-500.e9.	4.5	66
18	Local conformational dynamics in Â-helices measured by fast triplet transfer. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 1057-1062.	3.3	63

#	Article	IF	Citations
19	Histone H3K27 Trimethylation Inhibits H3 Binding and Function of SET1-Like H3K4 Methyltransferase Complexes. Molecular and Cellular Biology, 2013, 33, 4936-4946.	1.1	61
20	Dynamic chromatin technologies: from individual molecules to epigenomic regulation in cells. Nature Reviews Genetics, 2017, 18, 457-472.	7.7	60
21	Single-molecule kinetic analysis of HP1-chromatin binding reveals a dynamic network of histone modification and DNA interactions. Nucleic Acids Research, 2017, 45, 10504-10517.	6.5	49
22	On the unusual fluorescence properties of xanthone in water. Physical Chemistry Chemical Physics, 2006, 8, 3432.	1.3	46
23	Traceless Synthesis of Asymmetrically Modified Bivalent Nucleosomes. Angewandte Chemie - International Edition, 2016, 55, 2903-2906.	7.2	46
24	Single-molecule dynamics and genome-wide transcriptomics reveal that NF-kB (p65)-DNA binding times can be decoupled from transcriptional activation. PLoS Genetics, 2019, 15, e1007891.	1.5	45
25	Engineered Multivalent Sensors to Detect Coexisting Histone Modifications in Living Stem Cells. Cell Chemical Biology, 2018, 25, 51-56.e6.	2.5	39
26	Release of linker histone from the nucleosome driven by polyelectrolyte competition with a disordered protein. Nature Chemistry, 2022, 14, 224-231.	6.6	37
27	Histone Monoubiquitylation Position Determines Specificity and Direction of Enzymatic Cross-talk with Histone Methyltransferases Dot1L and PRC2. Journal of Biological Chemistry, 2012, 287, 23718-23725.	1.6	32
28	Intrachain diffusion in a protein loop fragment from carp parvalbumin. Chemical Physics, 2004, 307, 209-215.	0.9	24
29	Testing the diffusing boundary model for the helixâ€“coil transition in peptides. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 12905-12910.	3.3	23
30	A bi-terminal protein ligation strategy to probe chromatin structure during DNA damage. Chemical Science, 2018, 9, 3704-3709.	3.7	23
31	Engineering chromatin states: Chemical and synthetic biology approaches to investigate histone modification function. Biochimica Et Biophysica Acta - Gene Regulatory Mechanisms, 2014, 1839, 644-656.	0.9	17
32	SUV39 SET domains mediate crosstalk of heterochromatic histone marks. ELife, 2021, 10, .	2.8	17
33	Torsin ATPases influence chromatin interaction of the Torsin regulator LAP1. ELife, 2020, 9, .	2.8	17
34	KAP1 is an antiparallel dimer with a functional asymmetry. Life Science Alliance, 2019, 2, e201900349.	1.3	16
35	O-GlcNAcylation of High Mobility Group Box 1 (HMGB1) Alters Its DNA Binding and DNA Damage Processing Activities. Journal of the American Chemical Society, 2021, 143, 16030-16040.	6.6	14
36	The Elusive Structure of Centro-Chromatin: Molecular Order or Dynamic Heterogenetity?. Journal of Molecular Biology, 2021, 433, 166676.	2.0	13

#	Article	IF	Citations
37	Title is missing!. , 0, , .		13
38	Controlling the supramolecular assembly of nucleosomes asymmetrically modified on H4. Chemical Communications, 2017, 53, 10267-10270.	2.2	11
39	A Modular Ligation Strategy for Asymmetric Bivalent Nucleosomes Trimethylated at K36 and K27. ChemBioChem, 2019, 20, 1124-1128.	1.3	11
40	Synthetic Chromatin Approaches To Probe the Writing and Erasing of Histone Modifications. ChemMedChem, 2014, 9, 495-504.	1.6	10
41	Spurlose Synthese von asymmetrisch modifizierten, bivalenten Nukleosomen. Angewandte Chemie, 2016, 128, 2954-2958.	1.6	10
42	Multivalent Peptide Ligands To Probe the Chromocenter Microenvironment in Living Cells. ACS Chemical Biology, 2023, 18, 1066-1075.	1.6	10
43	Dynamic Chromatin Regulation from a Single Molecule Perspective. ACS Chemical Biology, 2016, 11, 609-620.	1.6	9
44	Using Triplet-Triplet Energy Transfer to Measure Conformational Dynamics in Polypeptide Chains. , 2007, 350, 169-188.		7
45	Chemical and biophysical methods to explore dynamic mechanisms of chromatin silencing. Current Opinion in Chemical Biology, 2019, 51, 1-10.	2.8	6
46	Nucleosome Binding by the Lysine Specific Demethylase 1 (LSD1) Enzyme Enables Histone H3 Demethylation. Biochemistry, 2020, 59, 2479-2483.	1.2	6
47	Multiplexed Single-Molecule Experiments Reveal Nucleosome Invasion Dynamics of the Cas9 Genome Editor. Journal of the American Chemical Society, 2021, 143, 16313-16319.	6.6	6
48	Revealing chromatin organization in metaphase chromosomes. EMBO Journal, 2019, 38, .	3.5	3
49	Observing protein interaction dynamics to chemically defined chromatin fibers by colocalization single-molecule fluorescence microscopy. Methods, 2020, 184, 112-124.	1.9	3
50	Semisynthesis and Reconstitution of Nucleosomes Carrying Asymmetric Histone Modifications. Methods in Molecular Biology, 2020, 2133, 263-291.	0.4	1
51	Chromatin as a Dynamic Platform for Protein-Protein Interactions. Biophysical Journal, 2014, 106, 77a.	0.2	0
52	Molecular and Chemical Mechanism in Epigenetics â€“ Swiss Summer School 2015 July 12â€“17, 2015, Hotel Kurhaus, Arolla, Switzerland. Chimia, 2015, 69, 624.	0.3	0
53	Heterochromatin Assembly and Dynamics on the Single Molecule Level. Biophysical Journal, 2015, 108, 14a.	0.2	0
54	2016 International Symposium on Chemical Biology of the NCCR Chemical Biology Campus Biotech, Geneva 13â€“15.1.2016. Chimia, 2016, 70, 215-219.	0.3	0

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55	Chromatin Remodeling Induced by the Invasion of Yeast Pioneer Transcription Factor Rap1 Revealed by Single-Molecule FRET. Biophysical Journal, 2019, 116, 39a-40a.	0.2	0
56	Applying Peptide and Protein Synthesis to Study Post-translational Modifications in Epigenetics and Beyond. Chimia, 2021, 75, 484-488.	0.3	0
57	Target Search Dynamics of Sox Transcription Factors. FASEB Journal, 2022, 36, .	0.2	0