Michael G Poirier

List of Publications by Year in descending order

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47 papers

2,851 citations

236925 25 h-index 214800 47 g-index

52 all docs 52 docs citations

52 times ranked 2951 citing authors

#	Article	IF	Citations
1	Post-Translational Modifications of Histones That Influence Nucleosome Dynamics. Chemical Reviews, 2015, 115, 2274-2295.	47.7	384
2	Structural basis for high-affinity binding of LEDGF PWWP to mononucleosomes. Nucleic Acids Research, 2013, 41, 3924-3936.	14.5	182
3	Histone fold modifications control nucleosome unwrapping and disassembly. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 12711-12716.	7.1	172
4	Live $\hat{a} \in cell$ imaging reveals the interplay between transcription factors, nucleosomes, and bursting. EMBO Journal, 2019, 38, .	7.8	155
5	Spontaneous Access to DNA Target Sites in Folded Chromatin Fibers. Journal of Molecular Biology, 2008, 379, 772-786.	4.2	135
6	Preparation of Fully Synthetic Histone H3 Reveals That Acetyl-Lysine 56 Facilitates Protein Binding Within Nucleosomes. Journal of Molecular Biology, 2011, 408, 187-204.	4.2	133
7	Dynamics and function of compact nucleosome arrays. Nature Structural and Molecular Biology, 2009, 16, 938-944.	8.2	123
8	Nucleosomes accelerate transcription factor dissociation. Nucleic Acids Research, 2014, 42, 3017-3027.	14.5	123
9	Acetylation of Histone H3 at the Nucleosome Dyad Alters DNA-Histone Binding. Journal of Biological Chemistry, 2009, 284, 23312-23321.	3.4	116
10	Regulation of the nucleosome unwrapping rate controls DNA accessibility. Nucleic Acids Research, 2012, 40, 10215-10227.	14.5	104
11	Biophysics of Chromatin Dynamics. Annual Review of Biophysics, 2019, 48, 321-345.	10.0	102
12	Probing Nucleosome Stability with a DNA Origami Nanocaliper. ACS Nano, 2016, 10, 7073-7084.	14.6	90
13	Histone H3 and H4 N-Terminal Tails in Nucleosome Arrays at Cellular Concentrations Probed by Magic Angle Spinning NMR Spectroscopy. Journal of the American Chemical Society, 2013, 135, 15278-15281.	13.7	80
14	Binding of PHF1 Tudor to H3K36me3 enhances nucleosome accessibility. Nature Communications, 2013, 4, 2969.	12.8	77
15	Histone Core Phosphorylation Regulates DNA Accessibility. Journal of Biological Chemistry, 2015, 290, 22612-22621.	3.4	76
16	Dissociation rate compensation mechanism for budding yeast pioneer transcription factors. ELife, 2019, 8, .	6.0	68
17	Accessibility of the histone H3 tail in the nucleosome for binding of paired readers. Nature Communications, 2017, 8, 1489.	12.8	67
18	Dynamic DNA Origami Device for Measuring Compressive Depletion Forces. ACS Nano, 2017, 11, 6566-6573.	14.6	59

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19	A quantitative model of nucleosome dynamics. Nucleic Acids Research, 2011, 39, 8306-8313.	14.5	49
20	Bivalent interaction of the PZP domain of BRPF1 with the nucleosome impacts chromatin dynamics and acetylation. Nucleic Acids Research, 2016, 44, 472-484.	14.5	49
21	Linker histone H1 and H3K56 acetylation are antagonistic regulators of nucleosome dynamics. Nature Communications, 2015, 6, 10152.	12.8	39
22	Covalent Modifications of Histone H3K9 Promote Binding of CHD3. Cell Reports, 2017, 21, 455-466.	6.4	36
23	Histone Acetylation near the Nucleosome Dyad Axis Enhances Nucleosome Disassembly by RSC and SWI/SNF. Molecular and Cellular Biology, 2015, 35, 4083-4092.	2.3	35
24	Hydrazide Mimics for Protein Lysine Acylation To Assess Nucleosome Dynamics and Deubiquitinase Action. Journal of the American Chemical Society, 2018, 140, 9478-9485.	13.7	33
25	Single molecule fluorescence methodologies for investigating transcription factor binding kinetics to nucleosomes and DNA. Methods, 2014, 70, 108-118.	3 . 8	31
26	Nucleosome composition regulates the histone H3 tail conformational ensemble and accessibility. Nucleic Acids Research, 2021, 49, 4750-4767.	14.5	29
27	PHF1 Tudor and N-terminal domains synergistically target partially unwrapped nucleosomes to increase DNA accessibility. Nucleic Acids Research, 2017, 45, gkw1320.	14.5	27
28	Mechanism for autoinhibition and activation of the MORC3 ATPase. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 6111-6119.	7.1	25
29	Histone H4 Tails in Nucleosomes: a Fuzzy Interaction with DNA. Angewandte Chemie - International Edition, 2021, 60, 6480-6487.	13.8	24
30	A nanoscale DNA force spectrometer capable of applying tension and compression on biomolecules. Nucleic Acids Research, 2021, 49, 8987-8999.	14.5	24
31	Aurora-A mediated histone H3 phosphorylation of threonine 118 controls condensin I and cohesin occupancy in mitosis. ELife, 2016, 5, e11402.	6.0	23
32	Molecular Basis for the PZP Domain of BRPF1 Association with Chromatin. Structure, 2020, 28, 105-110.e3.	3.3	20
33	High-Force Application by a Nanoscale DNA Force Spectrometer. ACS Nano, 2022, 16, 5682-5695.	14.6	20
34	Quantitative Modeling of Nucleosome Unwrapping from Both Ends. Biophysical Journal, 2019, 117, 2204-2216.	0.5	15
35	The path towards functional nanoparticle-DNA origami composites. Materials Science and Engineering Reports, 2019, 138, 153-209.	31.8	15
36	Molecular mechanism of the MORC4 ATPase activation. Nature Communications, 2020, 11, 5466.	12.8	14

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37	Conformational Dynamics of Histone H3 Tails in Chromatin. Journal of Physical Chemistry Letters, 2021, 12, 6174-6181.	4.6	13
38	Electron Paramagnetic Resonance of a Single NV Nanodiamond Attached to an Individual Biomolecule. Biophysical Journal, 2016, 110, 2044-2052.	0.5	12
39	DNA sequence influences hexasome orientation to regulate DNA accessibility. Nucleic Acids Research, 2019, 47, 5617-5633.	14.5	12
40	ATP-dependent nucleosome unwrapping catalyzed by human RAD51. Nucleic Acids Research, 2013, 41, 7302-7312.	14.5	11
41	H1.0 C Terminal Domain Is Integral for Altering Transcription Factor Binding within Nucleosomes. Biochemistry, 2022, 61, 625-638.	2.5	10
42	Methods for Investigating DNA Accessibility with Single Nucleosomes. Methods in Enzymology, 2016, 581, 379-415.	1.0	9
43	The role of the PZP domain of AF10 in acute leukemia driven by AF10 translocations. Nature Communications, 2021, 12, 4130.	12.8	8
44	Protein cofactors and substrate influence Mg2+-dependent structural changes in the catalytic RNA of archaeal RNase P. Nucleic Acids Research, 2021, 49, 9444-9458.	14.5	6
45	Nanofiber-based paramagnetic probes for rapid, real-time biomedical oximetry. Biomedical Microdevices, 2016, 18, 38.	2.8	5
46	Structural and biophysical characterization of the nucleosome-binding PZP domain. STAR Protocols, 2021, 2, 100479.	1.2	5
47	Histone H4 Tails in Nucleosomes: a Fuzzy Interaction with DNA. Angewandte Chemie, 2021, 133, 6554-6561.	2.0	1