Karoline Schnizer-Luger

List of Publications by Year
in descending order

105 papers	19,380 citations	44069 48 h-index	34986 98 g-index
140 all docs	140 docs citations	140 times ranked	14124 citing authors

#	Article	IF	Citations
1	Crystal structure of the nucleosome core particle at 2.8â€‰Ã… resolution. Nature, 1997, 389, 251-260.	27.8	8,091
2	Solvent Mediated Interactions in the Structure of the Nucleosome Core Particle at 1.9Ã… Resolution. Journal of Molecular Biology, 2002, 319, 1097-1113.	4.2	1,340
3	Reconstitution of Nucleosome Core Particles from Recombinant Histones and DNA. Methods in Enzymology, 2003, 375, 23-44.	1.0	709
4	Preparation of nucleosome core particle from recombinant histones. Methods in Enzymology, 1999, 304, 3-19.	1.0	671
5	New insights into nucleosome and chromatin structure: an ordered state or a disordered affair?. Nature Reviews Molecular Cell Biology, 2012, 13, 436-447.	37.0	573
6	The Nucleosomal Surface as a Docking Station for Kaposi's Sarcoma Herpesvirus LANA. Science, 2006, 311, 856-861.	12.6	469
7	The histone tails of the nucleosome. Current Opinion in Genetics and Development, 1998, 8, 140-146.	3.3	460
8	Structural determinants for generating centromeric chromatin. Nature, 2004, 430, 578-582.	27.8	364
9	Structure of the yeast nucleosome core particle reveals fundamental changes in internucleosome interactions. EMBO Journal, 2001, 20, 5207-5218.	7.8	360
10	DNA binding within the nucleosome core. Current Opinion in Structural Biology, 1998, 8, 33-40.	5.7	275
11	Structure and dynamic behavior of nucleosomes. Current Opinion in Genetics and Development, 2003, 13, 127-135.	3.3	270
12	The Histone Variant H2A.W Defines Heterochromatin and Promotes Chromatin Condensation in Arabidopsis. Cell, 2014, 158, 98-109.	28.9	257
13	Nucleosome structure and dynamics are coming of age. Nature Structural and Molecular Biology, 2019, 26, 3-13.	8.2	233
14	The role of the nucleosome acidic patch in modulating higher order chromatin structure. Journal of the Royal Society Interface, 2013, 10, 20121022.	3.4	200
15	A New Fluorescence Resonance Energy Transfer Approach Demonstrates That the Histone Variant H2AZ Stabilizes the Histone Octamer within the Nucleosome. Journal of Biological Chemistry, 2004, 279, 24274-24282.	3.4	193
16	Nucleosome and chromatin fiber dynamics. Current Opinion in Structural Biology, 2005, 15, 188-196.	5.7	191
17	Nucleosome-binding affinity as a primary determinant of the nuclear mobility of the pioneer transcription factor FoxA. Genes and Development, 2009, 23, 804-809.	5.9	190
18	Histone chaperone FACT action during transcription through chromatin by RNA polymerase II. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 7654-7659.	7.1	182

#	Article	IF	Citations
19	The Histone Chaperone FACT: Structural Insights and Mechanisms for Nucleosome Reorganization. Journal of Biological Chemistry, 2011, 286, 18369-18374.	3.4	181
20	The structure of nucleosome assembly protein 1. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 1248-1253.	7.1	178
21	Nucleosome accessibility governed by the dimer/tetramer interface. Nucleic Acids Research, 2011, 39, 3093-3102.	14.5	175
22	FACT caught in the act of manipulating the nucleosome. Nature, 2020, 577, 426-431.	27.8	160
23	Dynamic nucleosomes. Chromosome Research, 2006, 14, 5-16.	2.2	149
24	Structure of histone-based chromatin in Archaea. Science, 2017, 357, 609-612.	12.6	149
25	Crystal Structures of Nucleosome Core Particles in Complex with Minor Groove DNA-binding Ligands. Journal of Molecular Biology, 2003, 326, 371-380.	4.2	147
26	Histone Chaperone FACT Coordinates Nucleosome Interaction through Multiple Synergistic Binding Events. Journal of Biological Chemistry, 2011, 286, 41883-41892.	3.4	129
27	Automodification switches PARP-1 function from chromatin architectural protein to histone chaperone. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 12752-12757.	7.1	127
28	The Core Histone N-terminal Tail Domains Function Independently and Additively during Salt-dependent Oligomerization of Nucleosomal Arrays. Journal of Biological Chemistry, 2005, 280, 33701-33706.	3.4	123
29	Single and double box HMGB proteins differentially destabilize nucleosomes. Nucleic Acids Research, 2019, 47, 666-678.	14.5	122
30	Torque modulates nucleosome stability and facilitates H2A/H2B dimer loss. Nature Communications, 2013, 4, 2579.	12.8	116
31	Decoding the centromeric nucleosome through CENP-N. ELife, 2017, 6, .	6.0	101
32	A charged and contoured surface on the nucleosome regulates chromatin compaction. Nature Structural and Molecular Biology, 2007, 14, 1105-1107.	8.2	99
33	From The Cover: Molecular recognition of the nucleosomal "supergroove". Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 6864-6869.	7.1	90
34	A Thermodynamic Model for Nap1-Histone Interactions. Journal of Biological Chemistry, 2008, 283, 32412-32418.	3.4	83
35	Alternative Modes of Binding of Poly(ADP-ribose) Polymerase 1 to Free DNA and Nucleosomes. Journal of Biological Chemistry, 2012, 287, 32430-32439.	3.4	78
36	Histone Core Phosphorylation Regulates DNA Accessibility. Journal of Biological Chemistry, 2015, 290, 22612-22621.	3.4	76

#	Article	IF	Citations
37	Replication Stress Shapes a Protective Chromatin Environment across Fragile Genomic Regions. Molecular Cell, 2018, 69, 36-47.e7.	9.7	75
38	Energetics and Affinity of the Histone Octamer for Defined DNA Sequences. Biochemistry, 2001, 40, 10927-10933.	2.5	74
39	A Multilaboratory Comparison of Calibration Accuracy and the Performance of External References in Analytical Ultracentrifugation. PLoS ONE, 2015, 10, e0126420.	2.5	71
40	DNA-mediated association of two histone-bound complexes of yeast Chromatin Assembly Factor-1 (CAF-1) drives tetrasome assembly in the wake of DNA replication. ELife, 2017, 6, .	6.0	71
41	Chaperone Nap1 Shields Histone Surfaces Used in a Nucleosome and Can Put H2A-H2B in an Unconventional Tetrameric Form. Molecular Cell, 2013, 51, 662-677.	9.7	69
42	The histone chaperone FACT modulates nucleosome structure by tethering its components. Life Science Alliance, 2018, 1, e201800107.	2.8	68
43	Mechanistic insights into histone deposition and nucleosome assembly by the chromatin assembly factor-1. Nucleic Acids Research, 2018, 46, 9907-9917.	14.5	67
44	Yeast CAF-1 assembles histone (H3-H4)2 tetramers prior to DNA deposition. Nucleic Acids Research, 2012, 40, 10139-10149.	14.5	66
45	Histone chaperone specificity in Rtt109 activation. Nature Structural and Molecular Biology, 2008, 15, 957-964.	8.2	62
46	Structural and Biophysical Studies of Human PARP-1 in Complex with Damaged DNA. Journal of Molecular Biology, 2010, 395, 983-994.	4.2	60
47	A quantitative investigation of linker histone interactions with nucleosomes and chromatin. Scientific Reports, 2016, 6, 19122.	3.3	59
48	Poly(ADP-ribose) polymerase 1 searches DNA via a â€˜monkey barâ€™ mechanism. ELife, 2018, 7, .	6.0	56
49	The right place at the right time: chaperoning core histone variants. EMBO Reports, 2015, 16, 1454-1466.	4.5	55
50	Fluorescence strategies for high-throughput quantification of protein interactions. Nucleic Acids Research, 2012, 40, e33-e33.	14.5	53
51	Nucleosomes in Solution Exist as a Mixture of Twist-defect States. Journal of Molecular Biology, 2005, 345, 103-114.	4.2	52
52	Inhibitors of PARP: Number crunching and structure gazing. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2121979119.	7.1	52
53	Biophysical analysis and small-angle X-ray scattering-derived structures of MeCP2â€“nucleosome complexes. Nucleic Acids Research, 2011, 39, 4122-4135.	14.5	49
54	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

#	Article	IF	Citations
55	Role of the Loop Containing Residue 115 in the Induced-Fit Mechanism of the Bacterial Cell Wall Biosynthetic Enzyme MurAâ€¡. Biochemistry, 2000, 39, 2164-2173.	2.5	47
56	The Linker Region of MacroH2A Promotes Self-association of Nucleosomal Arrays. Journal of Biological Chemistry, 2011, 286, 23852-23864.	3.4	47
57	Virus-encoded histone doublets are essential and form nucleosome-like structures. Cell, 2021, 184, 4237-4250.e19.	28.9	47
58	The BRCT domain of PARP1 binds intact DNA and mediates intrastrand transfer. Molecular Cell, 2021, 81, 4994-5006.e5.	9.7	44
59	HPF1 and nucleosomes mediate a dramatic switch in activity of PARP1 from polymerase to hydrolase. ELife, 2021, 10, .	6.0	43
60	Investigating the Dynamics of Destabilized Nucleosomes Using Methyl-TROSY NMR. Journal of the American Chemical Society, 2018, 140, 4774-4777.	13.7	42
61	Histone Parylation factor 1 contributes to the inhibition of PARP1 by cancer drugs. Nature Communications, 2021, 12, 736.	12.8	40
62	Histone chaperone FACT FAcilitates Chromatin Transcription: mechanistic and structural insights. Current Opinion in Structural Biology, 2020, 65, 26-32.	5.7	36
63	Archaeal chromatin â€˜slinkiesâ€™ are inherently dynamic complexes with deflected DNA wrapping pathways. ELife, 2021, 10, .	6.0	36
64	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
65	Bridging of nucleosome-proximal DNA double-strand breaks by PARP2 enhances its interaction with HPF1. PLoS ONE, 2020, 15, e0240932.	2.5	33
66	CENP-N promotes the compaction of centromeric chromatin. Nature Structural and Molecular Biology, 2022, 29, 403-413.	8.2	32
67	The Cac2 subunit is essential for productive histone binding and nucleosome assembly in CAF-1. Scientific Reports, 2017, 7, 46274.	3.3	30
68	Quantifying Chromatin-Associated Interactions. Methods in Enzymology, 2012, 512, 243-274.	1.0	28
69	Constitutive centromere-associated network contacts confer differential stability on CENP-A nucleosomes in vitro and in the cell. Molecular Biology of the Cell, 2018, 29, 751-762.	2.1	27
70	Archaea: The Final Frontier of Chromatin. Journal of Molecular Biology, 2021, 433, 166791.	4.2	26
71	Assembly of Nucleosomal Arrays from Recombinant Core Histones and Nucleosome Positioning DNA. Journal of Visualized Experiments, 2013, , .	0.3	25
72	Histone Chaperone Nap1 Is a Major Regulator of Histone H2A-H2B Dynamics at the Inducible GAL Locus. Molecular and Cellular Biology, 2016, 36, 1287-1296.	2.3	24

#	Article	IF	Citations
73	PARP inhibitors trap PARP2 and alter the mode of recruitment of PARP2 at DNA damage sites. Nucleic Acids Research, 2022, 50, 3958-3973.	14.5	24
74	Nucleosomes Meet Their Remodeler Match. Trends in Biochemical Sciences, 2021, 46, 41-50.	7.5	23
75	The Transcription Factor Spn1 Regulates Gene Expression via a Highly Conserved Novel Structural Motif. Journal of Molecular Biology, 2010, 404, 1-15.	4.2	22
76	Analytical Ultracentrifugation (AUC): An Overview of the Application of Fluorescence and Absorbance AUC to the Study of Biological Macromolecules. Current Protocols in Molecular Biology, 2020, 133, e131.	2.9	21
77	The elongation factor Spn1 is a multi-functional chromatin binding protein. Nucleic Acids Research, 2018, 46, 2321-2334.	14.5	19
78	Probing the Conformational Changes Associated with DNA Binding to PARP1. Biochemistry, 2020, 59, 2003-2011.	2.5	19
79	Nonspecific Binding of RNA to PARP1 and PARP2 Does Not Lead to Catalytic Activation. Biochemistry, 2019, 58, 5107-5111.	2.5	18
80	EvoChromo: towards a synthesis of chromatin biology and evolution. Development (Cambridge), 2019, 146, .	2.5	16
81	Q-FADD: A Mechanistic Approach for Modeling the Accumulation of Proteins at Sites of DNA Damage. Biophysical Journal, 2019, 116, 2224-2233.	0.5	16
82	Scm3 deposits a (Cse4â€“H4)2 tetramer onto DNA through a Cse4â€“H4 dimer intermediate. Nucleic Acids Research, 2014, 42, 5532-5542.	14.5	14
83	Coordinated Action of Nap1 and RSC in Disassembly of Tandem Nucleosomes. Molecular and Cellular Biology, 2016, 36, 2262-2271.	2.3	13
84	Archaeal <scp>DNA</scp> on the histone merryâ€goâ€round. FEBS Journal, 2018, 285, 3168-3174.	4.7	13
85	SMARCAD1 is an ATP-dependent histone octamer exchange factor with de novo nucleosome assembly activity. Science Advances, 2021, 7, eabk2380.	10.3	13
86	Quantitating repair protein accumulation at DNA lesions: Past, present, and future. DNA Repair, 2019, 81, 102650.	2.8	12
87	Picking a nucleosome lock: Sequence- and structure-specific recognition of the nucleosome. Journal of Biosciences, 2020, 45, 1.	1.1	9
88	FRET-based Stoichiometry Measurements of Protein Complexes in vitro. Bio-protocol, 2018, 8, .	0.4	7
89	Spn1 and Its Dynamic Interactions with Spt6, Histones and Nucleosomes. Journal of Molecular Biology, 2022, 434, 167630.	4.2	5
90	Measuring Nucleosome Assembly Activity in vitro with the Nucleosome Assembly and Quantification (NAQ) Assay. Bio-protocol, 2018, 8, .	0.4	4

#	Article	IF	Citations
91	The secret life of histones. Science, 2020, 369, 33-33.	12.6	4
92	Yeast CAF-1 assembles histone (H3-H4) 2 tetramers prior to DNA deposition. Nucleic Acids Research, 2017, 45, 9811-9812.	14.5	3
93	Solution structure(s) of trinucleosomes from contrast variation SAXS. Nucleic Acids Research, 2021, 49, 5028-5037.	14.5	3
94	PARP1 and Sox2: An Unlikely Team of Pioneers to Conquer the Nucleosome. Molecular Cell, 2017, 65, 581-582.	9.7	2
95	Kinetics of DNAâ€“protein association and dissociation by stopped-flow spectroscopy. Methods in Enzymology, 2019, 625, 135-156.	1.0	2
96	Biochemical and Biophysical Methods for Analysis of Poly(ADP-Ribose) Polymerase 1 and Its Interactions with Chromatin. Methods in Molecular Biology, 2017, 1608, 231-253.	0.9	2
97	Picking a nucleosome lock: Sequence- and structure-specific recognition of the nucleosome. Journal of Biosciences, 2020, 45, .	1.1	2
98	Navigating the structure of COMPASS. ELife, 2020, 9, .	6.0	1
99	Putting numbers on chromatin and its interacting partners. Methods, 2014, 70, 75-76.	3.8	0
100	Editorial overview: Nucleic acid movers and shakers. Current Opinion in Structural Biology, 2014, 24, v-vii.	5.7	0
101	Nucleosome thermodynamics, histone modifications, and histone chaperone function. FASEB Journal, 2010, 24, 310.2.	0.5	0
102	Title is missing!. , 2020, 15, e0240932.		0
103	Title is missing!. , 2020, 15, e0240932.		0
104	Title is missing!. , 2020, 15, e0240932.		0
105	Title is missing!. , 2020, 15, e0240932.		0