Jan Bednar

List of Publications by Year
in descending order

73 papers	4,088 citations	159358 30 h-index	118652 62 g-index
75 all docs	75 docs citations	75 times ranked	3841 citing authors

#	Article	IF	Citations
1	Nucleosomes, linker DNA, and linker histone form a unique structural motif that directs the higher-order folding and compaction of chromatin. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 14173-14178.	3.3	500
2	The Twist, Writhe and Overall Shape of Supercoiled DNA Change During Counterion-induced Transition from a Loosely to a Tightly Interwound Superhelix. Journal of Molecular Biology, 1994, 235, 825-847.	2.0	245
3	Geometry and physics of knots. Nature, 1996, 384, 142-145.	13.7	230
4	Structure and Dynamics of a 197Âbp Nucleosome in Complex with Linker Histone H1. Molecular Cell, 2017, 66, 384-397.e8.	4.5	225
5	Linker Histones Stabilize the Intrinsic Salt-Dependent Folding of Nucleosomal Arrays:Â Mechanistic Ramifications for Higher-Order Chromatin Foldingâ€. Biochemistry, 1998, 37, 14776-14787.	1.2	224
6	Determination of DNA Persistence Length by Cryo-electron Microscopy. Separation of the Static and Dynamic Contributions to the Apparent Persistence Length of DNA. Journal of Molecular Biology, 1995, 254, 579-594.	2.0	219
7	Single-base resolution mapping of H1â€“nucleosome interactions and 3D organization of the nucleosome. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 9620-9625.	3.3	178
8	Electrophoretic mobility of DNA knots. Nature, 1996, 384, 122-122.	13.7	172
9	Chromatin conformation and salt-induced compaction: three-dimensional structural information from cryoelectron microscopy.. Journal of Cell Biology, 1995, 131, 1365-1376.	2.3	152
10	Ribosomal genes in focus. Journal of Cell Biology, 2002, 157, 743-748.	2.3	132
11	Curcumin-containing liposomes stabilized by thin layers of chitosan derivatives. Colloids and Surfaces B: Biointerfaces, 2013, 109, 307-316.	2.5	111
12	MENT, a Heterochromatin Protein That Mediates Higher Order Chromatin Folding, Is a New Serpin Family Member. Journal of Biological Chemistry, 1999, 274, 5626-5636.	1.6	105
13	Dissection of the unusual structural and functional properties of the variant H2A.Bbd nucleosome. EMBO Journal, 2006, 25, 4234-4244.	3.5	103
14	Structure of an H1-Bound 6-Nucleosome Array Reveals an Untwisted Two-Start Chromatin Fiber Conformation. Molecular Cell, 2018, 72, 902-915.e7.	4.5	93
15	Histone Octamer Instability under Single Molecule Experiment Conditions. Journal of Biological Chemistry, 2005, 280, 19958-19965.	1.6	87
16	The Nature of the Nucleosomal Barrier to Transcription. Molecular Cell, 1999, 4, 377-386.	4.5	78
17	The Flexible Ends of CENP-A Nucleosome Are Required for Mitotic Fidelity. Molecular Cell, 2016, 63, 674-685.	4.5	72
18	Nanoscale Dynamic Readout of a Chemical Redox Process Using Radicals Coupled with Nitrogen-Vacancy Centers in Nanodiamonds. ACS Nano, 2020, 14, 12938-12950.	7.3	66

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19	The Histone Octamer Is Invisible When NF-Î¹B Binds to the Nucleosome. Journal of Biological Chemistry, 2004, 279, 42374-42382.	1.6	60
20	The docking domain of histone H2A is required for H1 binding and RSC-mediated nucleosome remodeling. Nucleic Acids Research, 2011, 39, 2559-2570.	6.5	56
21	DNA at the Entry-Exit of the Nucleosome Observed by Cryoelectron Microscopy. Journal of Structural Biology, 1995, 114, 177-183.	1.3	55
22	Coassembly of Poly(ethylene oxide)-block-poly(methacrylic acid) and N-Dodecylpyridinium Chloride in Aqueous Solutions Leading to Ordered Micellar Assemblies within Copolymer Aggregates. Macromolecules, 2012, 45, 6471-6480.	2.2	46
23	Remosomes: RSC generated non-mobilized particles with approximately 180Âbp DNA loosely associated with the histone octamer. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 1936-1941.	3.3	45
24	From crystal and NMR structures, footprints and cryo-electron-micrographs to large and soft structures: nanoscale modeling of the nucleosomal stem. Nucleic Acids Research, 2011, 39, 9139-9154.	6.5	44
25	The incorporation of the novel histone variant H2AL2 confers unusual structural and functional properties of the nucleosome. Nucleic Acids Research, 2009, 37, 4684-4695.	6.5	43
26	Interactions of a Hydrophobically Modified Polycation with Zwitterionic Lipid Membranes. Langmuir, 2012, 28, 676-688.	1.6	42
27	Nucleosomes stacked with aligned dyad axes are found in native compact chromatin in vitro. Journal of Structural Biology, 2012, 178, 207-214.	1.3	41
28	3D reconstruction and comparison of shapes of DNA minicircles observed by cryo-electron microscopy. Nucleic Acids Research, 2006, 34, e125-e125.	6.5	39
29	H1â€“nucleosome interactions and their functional implications. Biochimica Et Biophysica Acta - Gene Regulatory Mechanisms, 2016, 1859, 436-443.	0.9	35
30	Opposite effect of counterions on the persistence length of nicked and non-nicked DNA. Journal of Molecular Biology, 1997, 266, 711-721.	2.0	32
31	Assembly of the full-length recombinant mouse prion protein I. Formation of soluble oligomers. Biochimica Et Biophysica Acta - General Subjects, 2005, 1724, 355-366.	1.1	32
32	The N-terminal domain plays a crucial role in the structure of a full-length human mitochondrial Lon protease. Scientific Reports, 2016, 6, 33631.	1.6	31
33	Effect of Polycation Structure on Interaction with Lipid Membranes. Journal of Physical Chemistry B, 2017, 121, 7318-7326.	1.2	27
34	Phase-plate cryo-EM structure of the Widom 601 CENP-A nucleosome core particle reveals differential flexibility of the DNA ends. Nucleic Acids Research, 2020, 48, 5735-5748.	6.5	27
35	Postnatal appearance of uncoupling protein and formation of thermogenic mitochondria in hamster brown adipose tissue. Biochimica Et Biophysica Acta - Bioenergetics, 1990, 1015, 441-449.	0.5	26
36	The Dynamics of Individual Nucleosomes Controls the Chromatin Condensation Pathway: Direct Atomic Force Microscopy Visualization of Variant Chromatin. Biophysical Journal, 2009, 97, 544-553.	0.2	25

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37	Interactions of serum with polyelectrolyte-stabilized liposomes: Cryo-TEM studies. Colloids and Surfaces B: Biointerfaces, 2014, 120, 152-159.	2.5	23
38	Cryoelectron microscopic analysis of nucleosomes and chromatin. Methods in Enzymology, 1999, 304, 191-213.	0.4	22
39	Bilayer structures in dioctadecyldimethylammonium bromide/oleic acid dispersions. Chemistry and Physics of Lipids, 2011, 164, 359-367.	1.5	22
40	Stable polymersomes based on ionicâ€“zwitterionic block copolymers modified with superparamagnetic iron oxide nanoparticles for biomedical applications. Journal of Materials Chemistry B, 2015, 3, 5523-5531.	2.9	22
41	Silicone-stabilized liposomes. Colloid and Polymer Science, 2010, 288, 37-45.	1.0	20
42	Effects of Membrane PEGylation on Entry and Location of Antifungal Drug Itraconazole and Their Pharmacological Implications. Molecular Pharmaceutics, 2017, 14, 1057-1070.	2.3	19
43	Supported Lipid Bilayers on Fluorescent Nanodiamonds: A Structurally Defined and Versatile Coating for Bioapplications. Advanced Functional Materials, 2018, 28, 1803406.	7.8	19
44	Spontaneous Formation of Densely Stacked Multilamellar Vesicles in Dioctadecyldimethylammonium Bromide/Oleosiloxane Mixtures. Langmuir, 2010, 26, 1551-1556.	1.6	18
45	Electron-beam-induced amorphization of ice III or IX obtained by high-pressure freezing. Journal of Microscopy, 1996, 182, 163-168.	0.8	16
46	Determination of the DNA helical repeat by cryo-electron microscopy. Nature Structural and Molecular Biology, 1994, 1, 361-363.	3.6	15
47	Hybrid Silica-Silicone Nanocapsules Obtained in Catanionic Vesicles. Cryo-TEM Studies. Journal of Nanoscience and Nanotechnology, 2009, 9, 3138-3143.	0.9	15
48	The enzymatic de-epithelialization technique determines denuded amniotic membrane integrity and viability of harvested epithelial cells. PLoS ONE, 2018, 13, e0194820.	1.1	15
49	Magneto-optical tweezers built around an inverted microscope. Applied Optics, 2005, 44, 3454.	2.1	13
50	Polyion complex vesicles (PICsomes) from strong copolyelectrolytes. Stability and in vitro studies. Colloids and Surfaces B: Biointerfaces, 2017, 158, 658-666.	2.5	13
51	Cryo-electron microscopy of the chromatin fiber. Current Opinion in Structural Biology, 2020, 64, 97-103.	2.6	13
52	Drug-loading capacity of polylactide-based micro- and nanoparticles â€“ Experimental and molecular modeling study. International Journal of Pharmaceutics, 2020, 591, 120031.	2.6	13
53	Chromatin under mechanical stress: from single 30â€ƒnm fibers to single nucleosomes. FEBS Journal, 2011, 278, 2231-2243.	2.2	12
54	Behavior of 2,6-Bis(decyloxy)naphthalene Inside Lipid Bilayer. Journal of Physical Chemistry B, 2010, 114, 15483-15494.	1.2	11

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55	Pulling the chromatin. European Physical Journal E, 2006, 19, 331-337.	0.7	10
56	Vesicles to Concentrate Iron in Lowâ€Iron Media: An Attempt to Mimic Marine Siderophores. Chemistry - A European Journal, 2008, 14, 3680-3686.	1.7	10
57	Characterization and comparison of human limbal explant cultures grown under defined and xeno-free conditions. Experimental Eye Research, 2018, 176, 20-28.	1.2	10
58	Searching for active ribosomal genes in situ: light microscopy in light of the electron beam. Journal of Structural Biology, 2002, 140, 227-231.	1.3	9
59	Polymersome-to-coacervate transformations. European Polymer Journal, 2017, 94, 125-135.	2.6	8
60	The healing dynamics of nonâ€healing wounds using cryoâ€preserved amniotic membrane. International Wound Journal, 2022, 19, 1243-1252.	1.3	7
61	Endothelial Wound Repair of the Organ-Cultured Porcine Corneas. Current Eye Research, 2018, 43, 856-865.	0.7	5
62	Dual role of histone variant H3.3B in spermatogenesis: positive regulation of piRNA transcription and implication in X-chromosome inactivation. Nucleic Acids Research, 2022, 50, 7350-7366.	6.5	5
63	Frequency of Complications During Preparation of Corneal Lamellae Used in Posterior Lamellar Keratoplasty Using the Pneumodissection Technique (Big Bubble). Cornea, 2018, 37, 904-908.	0.9	4
64	Generation of Remosomes by the SWI/SNF Chromatin Remodeler Family. Scientific Reports, 2019, 9, 14212.	1.6	4
65	Extra views on structure and dynamics of DNA loops on nucleosomes studied with molecular simulations. Nucleus, 2016, 7, 554-559.	0.6	3
66	Comparison of impact of two decontamination solutions on the viability of the cells in human amnion. Cell and Tissue Banking, 2017, 18, 413-423.	0.5	3
67	Antimicrobial efficiency and stability of two decontamination solutions. Cell and Tissue Banking, 2018, 19, 581-589.	0.5	3
68	Rapid cooling of the amniotic membrane as a model system for the vitrification of posterior corneal lamellae. Cell and Tissue Banking, 2014, 15, 165-173.	0.5	2
69	Silicone Nano/Microstructures Obtained in Ionic Polymerization. Macromolecular Symposia, 2011, 308, 43-48.	0.4	1
70	The NANOTUMOR consortium â€“ Towards the Tumor Cell Atlas. Biology of the Cell, 2021, 113, 272-280.	0.7	1
71	The micronucleus cytome assay â€“ A fast tool for DNA damage screening in human conjunctival epithelial cells. Ocular Surface, 2021, 20, 195-198.	2.2	1
72	Correction for Shukla et al., Remosomes: RSC generated non-mobilized particles with approximately 180 bp DNA loosely associated with the histone octamer. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 8041-8041.	3.3	0

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73	Determination of the DNA Helical Repeat and of the Structure of Supercoiled DNA by Cryo-Electron Microscopy. The IMA Volumes in Mathematics and Its Applications, 1996, , 117-138.	0.5	0