Lars Nordenskild

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

105 papers	3,352 citations	35 h-index	53 g-index
123 ext. papers	3,741 ext. citations	5.4 avg, IF	5.16 L-index

#	Paper	IF	Citations
105	Theory of nuclear spin relaxation in paramagnetic systems in solution. *Progress in Nuclear Magnetic Resonance Spectroscopy*, **1985**, 17, 141-185	10.4	180
104	The effects of histone H4 tail acetylations on cation-induced chromatin folding and self-association. *Nucleic Acids Research*, **2011**, 39, 1680-91	20.1	150
103	A Monte Carlo simulation study of electrostatic forces between hexagonally packed DNA double helices. *Journal of Chemical Physics*, **1986**, 85, 6686-6698	3.9	122
102	On the competition between water, sodium ions, and spermine in binding to DNA: a molecular dynamics computer simulation study. *Biophysical Journal*, **2002**, 82, 2860-75	2.9	113
101	Similarities and differences in interaction of K+ and Na+ with condensed ordered DNA. A molecular dynamics computer simulation study. *Nucleic Acids Research*, **2006**, 34, 686-96	20.1	109
100	A direct method for site-specific protein acetylation. *Angewandte Chemie - International Edition*, **2011**, 50, 9611-4	16.4	103
99	Competitive binding of Mg2+, Ca2+, Na+, and K+ ions to DNA in oriented DNA fibers: experimental and Monte Carlo simulation results. *Biophysical Journal*, **1999**, 77, 2736-49	2.9	87
98	Molecular dynamics simulation of multivalent-ion mediated attraction between DNA molecules. *Physical Review Letters*, **2008**, 100, 118301	7.4	85
97	Monte Carlo Simulation Study of DNA Polyelectrolyte Properties in the Presence of Multivalent Polyamine Ions. *Journal of Physical Chemistry B*, **1997**, 101, 4335-4342	3.4	82
96	Electrostatically Induced Polyelectrolyte Association of Rodlike Virus Particles. *Physical Review Letters*, **1998**, 81, 5465-5468	7.4	77
95	Spermine: an "invisible" component in the crystals of B-DNA. A grand canonical Monte Carlo and molecular dynamics simulation study. *Journal of Molecular Biology*, **2001**, 308, 907-17	6.5	76
94	Polyamine-nucleic acid interactions and the effects on structure in oriented DNA fibers. *Nucleic Acids Research*, **2002**, 30, 419-28	20.1	73
93	A molecular dynamics simulation study of oriented DNA with polyamine and sodium counterions: diffusion and averaged binding of water and cations. *Nucleic Acids Research*, **2003**, 31, 5971-81	20.1	72
92	Metal ion-induced lateral aggregation of filamentous viruses fd and M13. *Biophysical Journal*, **2002**, 83, 566-81	2.9	66
91	Computer modeling demonstrates that electrostatic attraction of nucleosomal DNA is mediated by histone tails. *Biophysical Journal*, **2006**, 90, 4305-16	2.9	62
90	3.9 Å structure of the nucleosome core particle determined by phase-plate cryo-EM. *Nucleic Acids Research*, **2016**, 44, 8013-9	20.1	59
89	The polyelectrolyte properties of chromatin. *Soft Matter*, **2012**, 8, 9322	3.6	57

88	Physicochemical analysis of electrostatic foundation for DNA-protein interactions in chromatin transformations. *Progress in Biophysics and Molecular Biology*, **2007**, 95, 23-49	4.7	54
87	Influence of histone tails and H4 tail acetylations on nucleosome-nucleosome interactions. *Journal of Molecular Biology*, **2011**, 414, 749-64	6.5	53
86	Applicability of the Solomon-Bloembergen equation to the study of paramagnetic transition metal-water complexes. An ab initio SCF-MO study. *Journal of the American Chemical Society*, **1982**, 104, 379-382	16.4	51
85	Application of polyelectrolyte theories for analysis of DNA melting in the presence of Na+ and Mg2+ ions. *Biophysical Journal*, **1998**, 75, 3041-56	2.9	50
84	Chromatin compaction under mixed salt conditions: opposite effects of sodium and potassium ions on nucleosome array folding. *Scientific Reports*, **2015**, 5, 8512	4.9	49
83	Electrostatic origin of salt-induced nucleosome array compaction. *Biophysical Journal*, **2010**, 99, 1896-905	2.9	48
82	Folding, misfolding, and amyloid protofibril formation of WW domain FBP28. *Biophysical Journal*, **2006**, 90, 3983-92	2.9	48
81	A universal description for the experimental behavior of salt-(in)dependent oligocation-induced DNA condensation. *Nucleic Acids Research*, **2009**, 37, 7137-50	20.1	46
80	Sequence-specific Mg2+-DNA interactions: a molecular dynamics simulation study. *Journal of Physical Chemistry B*, **2011**, 115, 14713-20	3.4	45
79	Regulation of Nucleosome Stacking and Chromatin Compaction by the Histone H4 N-Terminal Tail-H2A Acidic Patch Interaction. *Journal of Molecular Biology*, **2017**, 429, 2075-2092	6.5	42
78	A 43Ca-NMR study of Ca(II)-DNA interactions. *Biopolymers*, **1987**, 26, 1047-62	2.2	42
77	Mechanochemical study of conformational transitions and melting of Li-, Na-, K-, and CsDNA fibers in ethanol–water solutions. *Biopolymers*, **1994**, 34, 897-920	2.2	41
76	An advanced coarse-grained nucleosome core particle model for computer simulations of nucleosome-nucleosome interactions under varying ionic conditions. *PLoS ONE*, **2013**, 8, e54228	3.7	38
75	Cation-induced polyelectrolyte-polyelectrolyte attraction in solutions of DNA and nucleosome core particles. *Advances in Colloid and Interface Science*, **2010**, 158, 32-47	14.3	37
74	A nonempirical SCF–MO study of the validity of the Solomon–Bloembergen equation for the hexa-aquonickel (II) ion. *Journal of Chemical Physics*, **1981**, 74, 2927-2930	3.9	37
73	Dipole-dipole nuclear spin relaxation. *Molecular Physics*, **1983**, 50, 515-530	1.7	36
72	Evaluation of the electrostatic osmotic pressure in an infinite system of hexagonally oriented DNA molecules. *Molecular Physics*, **1991**, 72, 177-192	1.7	35
71	A Coarse-Grained DNA Model Parameterized from Atomistic Simulations by Inverse Monte Carlo. *Polymers*, **2014**, 6, 1655-1675	4.5	34

70	Modelling chromatin structure and dynamics: status and prospects. *Current Opinion in Structural Biology*, **2012**, 22, 151-9	8.1	33
69	A molecular dynamics simulation study of polyamine- and sodium-DNA. Interplay between polyamine binding and DNA structure. *European Biophysics Journal*, **2004**, 33, 671-82	1.9	30
68	Molecular dynamics simulation study of oriented polyamine- and Na-DNA: sequence specific interactions and effects on DNA structure. *Biopolymers*, **2004**, 73, 542-55	2.2	30
67	A systematic analysis of nucleosome core particle and nucleosome-nucleosome stacking structure. *Scientific Reports*, **2018**, 8, 1543	4.9	27
66	Effects of cholesterol on pore formation in lipid bilayers induced by human islet amyloid polypeptide fragments: a coarse-grained molecular dynamics study. *Physical Review E*, **2011**, 84, 051922	2.4	27
65	Design and biophysical characterization of novel polycationic epsilon-peptides for DNA compaction and delivery. *Biomacromolecules*, **2008**, 9, 321-30	6.9	27
64	Computer modeling reveals that modifications of the histone tail charges define salt-dependent interaction of the nucleosome core particles. *Biophysical Journal*, **2009**, 96, 2082-94	2.9	26
63	A reexamination of 25Mg2+ NMR in DNA solution: site heterogeneity and cation competition effects. *Biopolymers*, **1991**, 31, 1343-6	2.2	26
62	Experimental and Monte Carlo Simulation Studies on the Competitive Binding of Li+, Na+, and K+ Ions to DNA in Oriented DNA Fibers *Journal of Physical Chemistry B*, **1999**, 103, 9008-9019	3.4	25
61	A Direct Method for Site-Specific Protein Acetylation. *Angewandte Chemie*, **2011**, 123, 9785-9788	3.6	24
60	A potassium-39 NMR study of potassium binding to double-helical DNA. *FEBS Journal*, **1984**, 142, 133-7		24
59	Competitive substitution of hexammine cobalt(III) for Na+ and K+ ions in oriented DNA fibers. *Biopolymers*, **2001**, 58, 268-78	2.2	22
58	Ca2+ binding environments on natural and synthetic polymeric DNAs. *Journal of Biomolecular Structure and Dynamics*, **1992**, 10, 333-43	3.6	22
57	Single-molecule force spectroscopy on histone H4 tail-cross-linked chromatin reveals fiber folding. *Journal of Biological Chemistry*, **2017**, 292, 17506-17513	5.4	21
56	A universal description for the experimental behavior of salt-(in)dependent oligocation-induced DNA condensation. *Nucleic Acids Research*, **2012**, 40, 2808-21	20.1	21
55	ISWI remodelling of physiological chromatin fibres acetylated at lysine 16 of histone H4. *PLoS ONE*, **2014**, 9, e88411	3.7	20
54	Molecular dynamics simulations demonstrate the regulation of DNA-DNA attraction by H4 histone tail acetylations and mutations. *Biopolymers*, **2014**, 101, 1051-64	2.2	20
53	The Influence of Ionic Environment and Histone Tails on Columnar Order of Nucleosome Core Particles. *Biophysical Journal*, **2016**, 110, 1720-1731	2.9	20

52	Self-Diffusion and Association of Li+, Cs+, and H2O in Oriented DNA Fibers. An NMR and MD Simulation Study. *Journal of Physical Chemistry B*, **1998**, 102, 10636-10642	3.4	19
51	Hydrophobic interactions control the self-assembly of DNA and cellulose. *Quarterly Reviews of Biophysics*, **2021**, 54, e3	7	19
50	The interaction of calcium (II) with DNA probed by 43Ca-NMR is not influenced by terminal phosphate groups at ends and nicks. *Biopolymers*, **1989**, 28, 1339-42	2.2	18
49	Structure and Dynamics in the Nucleosome Revealed by Solid-State NMR. *Angewandte Chemie - International Edition*, **2018**, 57, 9734-9738	16.4	17
48	A study of the quadrupolar NMR splittings of 7Li+, 23Na+, and 133Cs+ counterions in macroscopically oriented DNA fibers. *Biopolymers*, **1992**, 32, 1631-42	2.2	17
47	Single-molecule compaction of megabase-long chromatin molecules by multivalent cations. *Nucleic Acids Research*, **2018**, 46, 635-649	20.1	16
46	Multiscale coarse-grained modelling of chromatin components: DNA and the nucleosome. *Advances in Colloid and Interface Science*, **2016**, 232, 36-48	14.3	16
45	H4 histone tail mediated DNA-DNA interaction and effects on DNA structure, flexibility, and counterion binding: a molecular dynamics study. *Biopolymers*, **2007**, 86, 409-23	2.2	16
44	Principles of electrostatic interactions and self-assembly in lipid/peptide/DNA systems: applications to gene delivery. *Advances in Colloid and Interface Science*, **2014**, 205, 221-9	14.3	15
43	Influence of alkali cation nature on structural transitions and reactions of biopolyelectrolytes. *Biomacromolecules*, **2000**, 1, 648-55	6.9	15
42	Modeling DNA Flexibility: Comparison of Force Fields from Atomistic to Multiscale Levels. *Journal of Physical Chemistry B*, **2020**, 124, 38-49	3.4	15
41	The effect of salt on oligocation-induced chromatin condensation. *Biochemical and Biophysical Research Communications*, **2012**, 418, 205-10	3.4	14
40	Biophysical properties and supramolecular structure of self-assembled liposome/peptide/DNA nanoparticles: correlation with gene delivery. *Biomacromolecules*, **2012**, 13, 124-31	6.9	14
39	A multiscale analysis of DNA phase separation: from atomistic to mesoscale level. *Nucleic Acids Research*, **2019**, 47, 5550-5562	20.1	13
38	Application of the Poisson Boltzmann polyelectrolyte model for analysis of thermal denaturation of DNA in the presence of Na+ and polyamine cations. *Biophysical Chemistry*, **2003**, 104, 55-66	3.5	13
37	Application of the Poisson Boltzmann polyelectrolyte model for analysis of equilibria between single-, double-, and triple-stranded polynucleotides in the presence of K(+), Na(+), and Mg(2+) ions. *Journal of Biomolecular Structure and Dynamics*, **2002**, 20, 275-90	3.6	13
36	Charge structure and counterion distribution in hexagonal DNA liquid crystal. *Biophysical Journal*, **2007**, 92, 947-58	2.9	12
35	Multiple-quantum pulsed gradient NMR diffusion experiments on quadrupolar (I >) spins. *Chemical Physics Letters*, **1996**, 262, 737-743	2.5	12

34	Compaction of Single-Molecule Megabase-Long Chromatin under the Influence of Macromolecular Crowding. *Biophysical Journal*, **2018**, 114, 2326-2335	2.9	11
33	Conformation-dependent DNA attraction. *Nanoscale*, **2014**, 6, 7085-92	7.7	11
32	Interactions between cationic lipid bilayers and model chromatin. *Langmuir*, **2010**, 26, 12488-92	4	11
31	Histone H4 lysine 20 mono-methylation directly facilitates chromatin openness and promotes transcription of housekeeping genes. *Nature Communications*, **2021**, 12, 4800	17.4	11
30	EZH2 promotes neoplastic transformation through VAV interaction-dependent extranuclear mechanisms. *Oncogene*, **2018**, 37, 461-477	9.2	10
29	All-Atom MD Simulation of DNA Condensation Using Ab Initio Derived Force Field Parameters of Cobalt(III)-Hexammine. *Journal of Physical Chemistry B*, **2017**, 121, 7761-7770	3.4	10
28	Magic v.3: An integrated software package for systematic structure-based coarse-graining. *Computer Physics Communications*, **2019**, 237, 263-273	4.2	10
27	The human telomeric nucleosome displays distinct structural and dynamic properties. *Nucleic Acids Research*, **2020**, 48, 5383-5396	20.1	9
26	Influence of Nitroxide Spin Labels on RNA Structure: A Molecular Dynamics Simulation Study. *Journal of Chemical Theory and Computation*, **2008**, 4, 1781-7	6.4	9
25	Dynamic networks observed in the nucleosome core particles couple the histone globular domains with DNA. *Communications Biology*, **2020**, 3, 639	6.7	9
24	Elucidating the DNA–Histone Interaction in Nucleosome from the DNA–Dendrimer Complex. *Macromolecules*, **2016**, 49, 4277-4285	5.5	9
23	Structure and internal organization of overcharged cationic-lipid/peptide/DNA self-assembly complexes. *Biochimica Et Biophysica Acta - Biomembranes*, **2012**, 1818, 1794-800	3.8	8
22	Interactions of polyamines with the DNA octamers d(m5CG)4 and d(GGAATTCC): A 1H-NMR investigation. *Biopolymers*, **1999**, 49, 41-53	2.2	8
21	Li+ counterion self-diffusion in ordered DNA. *Biopolymers*, **1994**, 34, 1605-1614	2.2	7
20	Bottom-Up Coarse-Grained Modeling of DNA. *Frontiers in Molecular Biosciences*, **2021**, 8, 645527	5.6	7
19	Supramolecular organization in self-assembly of chromatin and cationic lipid bilayers is controlled by membrane charge density. *Biomacromolecules*, **2012**, 13, 4146-57	6.9	6
18	Global optimisation by replica exchange with scaled hybrid Hamiltonians. *Molecular Simulation*, **2008**, 34, 575-590	2	6
17	Preparation of Oriented Ca- and Mg-DNA by Means of the Wet Spinning Method.. *Acta Chemica Scandinavica*, **1991**, 45, 216-218		6

List of Publications

16	Multiscale modelling of nucleosome core particle aggregation. *Journal of Physics Condensed Matter*, **2015**, 27, 064111	1.8	5
15	Compaction and self-association of megabase-sized chromatin are induced by anionic protein crowding. *Soft Matter*, **2020**, 16, 4366-4372	3.6	5
14	Linker histone defines structure and self-association behaviour of the 177□bp human chromatosome. *Scientific Reports*, **2021**, 11, 380	4.9	5
13	The effect of linker DNA on the structure and interaction of nucleosome core particles. *Soft Matter*, **2018**, 14, 9096-9106	3.6	4
12	DNA□DNA Interactions209-237		4
11	Solid-state NMR C, N assignments of human histone H3 in the nucleosome core particle. *Biomolecular NMR Assignments*, **2020**, 14, 99-104	0.7	4
10	An NMR self-diffusion study of the interactions between spermidine and oligonucleotides **1998**, 38, 505-513		3
9	Structure and Dynamics in the Nucleosome Revealed by Solid-State NMR. *Angewandte Chemie*, **2018**, 130, 9882-9886	3.6	3
8	An NMR self-diffusion study of the interactions between spermidine and oligonucleotides **1996**, 38, 505		3
7	Internal Motion of Chromatin Fibers Is Governed by Dynamics of Uncompressed Linker Strands. *Biophysical Journal*, **2020**, 119, 2326-2334	2.9	0
6	Recent Advances in Investigating Functional Dynamics of Chromatin.. *Frontiers in Genetics*, **2022**, 13, 870640	4.5	0
5	Selective Acetylation Reveals Distinct Roles of Histones H3 and H4 in Nucleosome Dynamics - a FRET Study. *Biophysical Journal*, **2014**, 106, 430a	2.9	
4	How Histone Modifications Change Nucleosome Stability □FRET Studies on Single Molecules and in Bulk. *Microscopy and Microanalysis*, **2014**, 20, 1204-1205	0.5	
3	Electrostatically Induced Bundle Formation of Rodlike Polyelectrolytes: Comparison of Predictions from Monte Carlo Simulations with Experiments on Fd And M13 Virus Particles.. *Materials Research Society Symposia Proceedings*, **1997**, 489, 61		
2	Molecular Simulation of an □e-Peptide Dendrimer **2006**, 585-586		
1	Kinetics for ligand exchange in paramagnetic complexes of Ni(DPM)2 with nitrogen, oxygen and sulfur ligands. A carbon-13 NMR relaxation study. *Inorganica Chimica Acta*, **1980**, 40, X97-X98	2.7	