John F Marko

List of Publications by Year
in descending order

218 papers	17,887 citations	18436 62 h-index	15683 125 g-index
256 all docs	256 docs citations	256 times ranked	11014 citing authors

#	Article	IF	Citations
1	Stretching DNA. Macromolecules, 1995, 28, 8759-8770.	2.2	2,187
2	Entropic elasticity of lambda-phage DNA. Science, 1994, 265, 1599-1600.	6.0	2,003
3	How do site-specific DNA-binding proteins find their targets?. Nucleic Acids Research, 2004, 32, 3040-3052.	6.5	813
4	Interphase chromosomes undergo constrained diffusional motion in living cells. Current Biology, 1997, 7, 930-939.	1.8	640
5	Self-organization of domain structures by DNA-loop-extruding enzymes. Nucleic Acids Research, 2012, 40, 11202-11212.	6.5	447
6	Chromatin and lamin A determine two different mechanical response regimes of the cell nucleus. Molecular Biology of the Cell, 2017, 28, 1984-1996.	0.9	349
7	Statistical mechanics of supercoiled DNA. Physical Review E, 1995, 52, 2912-2938.	0.8	328
8	Bending and twisting elasticity of DNA. Macromolecules, 1994, 27, 981-988.	2.2	289
9	Structural Transitions of a Twisted and Stretched DNA Molecule. Physical Review Letters, 1999, 83, 1066-1069.	2.9	268
10	Chromosome Compaction by Active Loop Extrusion. Biophysical Journal, 2016, 110, 2162-2168.	0.2	266
11	Chromatin histone modifications and rigidity affect nuclear morphology independent of lamins. Molecular Biology of the Cell, 2018, 29, 220-233.	0.9	257
12	Compaction and segregation of sister chromatids via active loop extrusion. ELife, 2016, 5, .	2.8	256
13	Fluctuations and supercoiling of DNA. Science, 1994, 265, 506-508.	6.0	238
14	Localized Single-Stranded Bubble Mechanism for Cyclization of Short Double Helix DNA. Physical Review Letters, 2004, 93, 108108.	2.9	237
15	Mechanics of Microtubule-Based Membrane Extension. Physical Review Letters, 1997, 79, 4497-4500.	2.9	213
16	One- and three-dimensional pathways for proteins to reach specific DNA sites. EMBO Journal, 2000, 19, 6546-6557.	3.5	163
17	RecA binding to a single double-stranded DNA molecule: A possible role of DNA conformational fluctuations. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 12295-12299.	3.3	162
18	Torque and dynamics of linking number relaxation in stretched supercoiled DNA. Physical Review E, 2007, 76, 021926.	0.8	158

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19	Polymers grafted to a convex surface. Macromolecules, 1991, 24, 693-703.	2.2	157
20	Force and kinetic barriers to unzipping of the DNA double helix. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 8608-8613.	3.3	156
21	Nonlinear partial differential equations and applications: From the Cover: Mitotic chromosomes are chromatin networks without a mechanically contiguous protein scaffold. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 15393-15397.	3.3	154
22	Elasticity and Structure of Eukaryote Chromosomes Studied by Micromanipulation and Micropipette Aspiration. Journal of Cell Biology, 1997, 139, 1-12.	2.3	152
23	Concentration-dependent exchange accelerates turnover of proteins bound to double-stranded DNA. Nucleic Acids Research, 2011, 39, 2249-2259.	6.5	148
24	Overstretching and force-driven strand separation of double-helix DNA. Physical Review E, 2004, 70, 011910.	0.8	146
25	A physical sciences network characterization of non-tumorigenic and metastatic cells. Scientific Reports, 2013, 3, 1449.	1.6	146
26	Near-field-magnetic-tweezer manipulation of single DNA molecules. Physical Review E, 2004, 70, 011905.	0.8	144
27	Mechanism of Chromosome Compaction and Looping by the Escherichia coli Nucleoid Protein Fis. Journal of Molecular Biology, 2006, 364, 777-798.	2.0	141
28	Chromatinâ€™s physical properties shape the nucleus and its functions. Current Opinion in Cell Biology, 2019, 58, 76-84.	2.6	141
29	Micromechanical Analysis of the Binding of DNA-Bending Proteins HMGB1, NHP6A, and HU Reveals Their Ability To Form Highly Stable DNAâ˜Protein Complexesâ€. Biochemistry, 2004, 43, 13867-13874.	1.2	139
30	Phase separation in a grafted polymer layer. Physical Review Letters, 1991, 66, 1541-1544.	2.9	136
31	Variation of the folding and dynamics of the <i><scp>E</scp>scherichia coli</i> chromosome with growth conditions. Molecular Microbiology, 2012, 86, 1318-1333.	1.2	127
32	Interference of spinodal waves in thin polymer films. Macromolecules, 1993, 26, 5566-5571.	2.2	125
33	A kinetic proofreading mechanism for disentanglement of DNA by topoisomerases. Nature, 1999, 401, 932-935.	13.7	124
34	Stretching must twist DNA. Europhysics Letters, 1997, 38, 183-188.	0.7	121
35	DNA under high tension: Overstretching, undertwisting, and relaxation dynamics. Physical Review E, 1998, 57, 2134-2149.	0.8	120
36	Polymer Models of Meiotic and Mitotic Chromosomes. Molecular Biology of the Cell, 1997, 8, 2217-2231.	0.9	115

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37	Extension of torsionally stressed DNA by external force. Biophysical Journal, 1997, 73, 123-132.	0.2	109
38	Driving proteins off DNA using applied tension. Biophysical Journal, 1997, 73, 2173-2178.	0.2	109
39	Micromechanical studies of mitotic chromosomes. Chromosome Research, 2008, 16, 469-497.	1.0	108
40	Microphase separation of charged diblock copolymers: melts and solutions. Macromolecules, 1992, 25, 1503-1509.	2.2	107
41	Influence of surface interactions on spinodal decomposition. Physical Review E, 1993, 48, 2861-2879.	0.8	107
42	Chromosome elasticity and mitotic polar ejection force measured in living Drosophila embryos by four-dimensional microscopy-based motion analysis. Current Biology, 2001, 11, 569-578.	1.8	107
43	Structural transitions in DNA driven by external force and torque. Physical Review E, 2001, 63, 051903.	0.8	105
44	Statistics of loop formation along double helix DNAs. Physical Review E, 2005, 71, 061905.	0.8	104
45	Effects of DNA-distorting proteins on DNA elastic response. Physical Review E, 2003, 68, 011905.	0.8	100
46	Reversible and Irreversible Unfolding of Mitotic Newt Chromosomes by Applied Force. Molecular Biology of the Cell, 2000, 11, 269-276.	0.9	94
47	Defining a Centromere-like Element in Bacillus subtilis by Identifying the Binding Sites for the Chromosome-Anchoring Protein RacA. Molecular Cell, 2005, 17, 773-782.	4.5	93
48	Underwound DNA under Tension: Structure, Elasticity, and Sequence-Dependent Behaviors. Physical Review Letters, 2011, 107, 108102.	2.9	92
49	DNA-segment-capture model for loop extrusion by structural maintenance of chromosome (SMC) protein complexes. Nucleic Acids Research, 2019, 47, 6956-6972.	6.5	92
50	Two distinct overstretched DNA states. Nucleic Acids Research, 2010, 38, 5594-5600.	6.5	91
51	Chromosome organization by one-sided and two-sided loop extrusion. ELife, 2020, 9, .	2.8	90
52	Single Chromatin Fiber Stretching Reveals Physically Distinct Populations of Disassembly Events. Biophysical Journal, 2005, 88, 3572-3583.	0.2	85
53	Liquid chromatin Hi-C characterizes compartment-dependent chromatin interaction dynamics. Nature Genetics, 2021, 53, 367-378.	9.4	84
54	Transition dynamics and selection of the distinct S-DNA and strand unpeeling modes of double helix overstretching. Nucleic Acids Research, 2011, 39, 3473-3481.	6.5	82

#	Article	IF	Citations
55	Microphase separation of block copolymer rings. Macromolecules, 1993, 26, 1442-1444.	2.2	79
56	Modulation of HUâ€"DNA interactions by salt concentration and applied force. Nucleic Acids Research, 2010, 38, 6176-6185.	6.5	78
57	Physicochemical mechanotransduction alters nuclear shape and mechanics via heterochromatin formation. Molecular Biology of the Cell, 2019, 30, 2320-2330.	0.9	77
58	Competition between curls and plectonemes near the buckling transition of stretched supercoiled DNA. Physical Review E, 2012, 85, 011908.	0.8	74
59	ATP Hydrolysis Enhances RNA Recognition and Antiviral Signal Transduction by the Innate Immune Sensor, Laboratory of Genetics and Physiology 2 (LGP2). Journal of Biological Chemistry, 2013, 288, 938-946.	1.6	74
60	Supercoiled and braided DNA under tension. Physical Review E, 1997, 55, 1758-1772.	0.8	71
61	Micromanipulation Studies of Chromatin Fibers in Xenopus Egg Extracts Reveal ATP-dependent Chromatin Assembly Dynamics. Molecular Biology of the Cell, 2007, 18, 464-474.	0.9	71
62	Facilitated dissociation of transcription factors from single DNA binding sites. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E3251-E3257.	3.3	71
63	Transient Wetting and 2D Spinodal Decomposition in a Binary Polymer Blend. Europhysics Letters, 1995, 29, 353-358.	0.7	70
64	The Bending Rigidity of Mitotic Chromosomes. Molecular Biology of the Cell, 2002, 13, 2170-2179.	0.9	70
65	Barrier-to-autointegration factor (BAF) condenses DNA by looping. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 16610-16615.	3.3	69
66	HP1Î± is a chromatin crosslinker that controls nuclear and mitotic chromosome mechanics. ELife, 2021, 10, .	2.8	69
67	Electrophoresis of charged polymers: Simulation and scaling in a lattice model of reptation. Physical Review E, 1994, 49, 5303-5309.	0.8	68
68	Reversible hypercondensation and decondensation of mitotic chromosomes studied using combined chemical-micromechanical techniques. Journal of Cellular Biochemistry, 2002, 85, 422-434.	1.2	68
69	Formation of loops in DNA under tension. Physical Review E, 2005, 71, 021911.	0.8	68
70	Interdependence of behavioural variability and response to small stimuli in bacteria. Nature, 2010, 468, 819-823.	13.7	67
71	Multiple-binding-site mechanism explains concentration-dependent unbinding rates of DNA-binding proteins. Nucleic Acids Research, 2014, 42, 3783-3791.	6.5	66
72	Correlations in grafted polymer layers. Macromolecules, 1992, 25, 296-307.	2.2	65

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73	Condensin controls mitotic chromosome stiffness and stability without forming a structurally contiguous scaffold. Chromosome Research, 2018, 26, 277-295.	1.0	65
74	Single-molecule analysis reveals the molecular bearing mechanism of DNA strand exchange by a serine recombinase. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 7419-7424.	3.3	63
75	The SMC1-SMC3 cohesin heterodimer structures DNA through supercoiling-dependent loop formation. Nucleic Acids Research, 2013, 41, 6149-6160.	6.5	61
76	Analytical Description of Extension, Torque, and Supercoiling Radius of a Stretched Twisted DNA. Physical Review Letters, 2011, 106, 138104.	2.9	60
77	Microphase Separation of a Dense Two-Component Grafted-Polymer Layer. Europhysics Letters, 1994, 25, 239-244.	0.7	57
78	Topoisomerase V relaxes supercoiled DNA by a constrained swiveling mechanism. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 14670-14675.	3.3	57
79	Mitotic chromosomes are constrained by topoisomerase IIâ€“sensitive DNA entanglements. Journal of Cell Biology, 2010, 188, 653-663.	2.3	57
80	Phase ordering in the Ising model with conserved spin. Physical Review E, 1995, 52, 2522-2534.	0.8	54
81	Linking topology of tethered polymer rings with applications to chromosome segregation and estimation of the knotting length. Physical Review E, 2009, 79, 051905.	0.8	54
82	Accurate Calculation of Isotropic-Plastic and Isotropic-Nematic Transitions in the Hard-Ellipsoid Fluid. Physical Review Letters, 1988, 60, 325-328.	2.9	53
83	Low-Force DNA Condensation and Discontinuous High-Force Decondensation Reveal a Loop-Stabilizing Function of the Protein Fis. Physical Review Letters, 2005, 95, 208101.	2.9	53
84	Maxwell relations for single-DNA experiments: Monitoring protein binding and double-helix torque with force-extension measurements. Physical Review E, 2008, 77, 031916.	0.8	52
85	Mechanics and Buckling of Biopolymeric Shells and Cell Nuclei. Biophysical Journal, 2017, 113, 1654-1663.	0.2	51
86	Force and kinetic barriers to initiation of DNA unzipping. Physical Review E, 2002, 65, 041907.	0.8	49
87	Theoretical models for single-molecule DNA and RNA experiments: from elasticity to unzipping. Comptes Rendus Physique, 2002, 3, 569-584.	0.3	49
88	The micromechanics of DNA. Physics World, 2003, 16, 37-41.	0.0	49
89	Global force-torque phase diagram for the DNA double helix: Structural transitions, triple points, and collapsed plectonemes. Physical Review E, 2013, 88, 062722.	0.8	49
90	Biophysics of proteinâ€“DNA interactions and chromosome organization. Physica A: Statistical Mechanics and Its Applications, 2015, 418, 126-153.	1.2	49

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91	Nucleosome hopping and sliding kinetics determined from dynamics of single chromatin fibers in Xenopus egg extracts. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 13649-13654.	3.3	48
92	Effect of Internal Friction on Biofilament Dynamics. Physical Review Letters, 2002, 88, 228103.	2.9	47
93	Bacterial topoisomerase I and topoisomerase III relax supercoiled DNA via distinct pathways. Nucleic Acids Research, 2012, 40, 10432-10440.	6.5	47
94	Bend-Induced Twist Waves and the Structure of Nucleosomal DNA. Physical Review Letters, 2018, 121, 088101.	2.9	46
95	The Smc5/6 Core Complex Is a Structure-Specific DNA Binding and Compacting Machine. Molecular Cell, 2020, 80, 1025-1038.e5.	4.5	46
96	Probing Chromosome Structure with Dynamic Force Relaxation. Physical Review Letters, 2001, 86, 360-363.	2.9	45
97	DNA-Segment-Facilitated Dissociation of Fis and NHP6A from DNA Detected via Single-Molecule Mechanical Response. Journal of Molecular Biology, 2015, 427, 3123-3136.	2.0	44
98	Separate roles for chromatin and lamins in nuclear mechanics. Nucleus, 2018, 9, 119-124.	0.6	42
99	Force-driven unbinding of proteins HU and Fis from DNA quantified using a thermodynamic Maxwell relation. Nucleic Acids Research, 2011, 39, 5568-5577.	6.5	40
100	Histone H1 compacts DNA under force and during chromatin assembly. Molecular Biology of the Cell, 2012, 23, 4864-4871.	0.9	40
101	Surface-Induced Asymmetries during Spinodal Decomposition in Off-Critical Polymer Mixtures. Macromolecules, 1994, 27, 6768-6776.	2.2	39
102	Nucleosome positioning in a model of active chromatin remodeling enzymes. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 7799-7803.	3.3	39
103	Facilitated Dissociation of a Nucleoid Protein from the Bacterial Chromosome. Journal of Bacteriology, 2016, 198, 1735-1742.	1.0	38
104	Oligomerization and ATP stimulate condensin-mediated DNA compaction. Scientific Reports, 2017, 7, 14279.	1.6	37
105	Micromechanics of chromatin and chromosomes. Biochemistry and Cell Biology, 2003, 81, 209-220.	0.9	36
106	Chromosome disentanglement driven via optimal compaction of loop-extruded brush structures. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 24956-24965.	3.3	36
107	Communications between distant sites on supercoiled DNA from non-exponential kinetics for DNA synapsis by resolvase. Journal of Molecular Biology, 1997, 270, 396-412.	2.0	35
108	Micromechanics of human mitotic chromosomes. Physical Biology, 2011, 8, 015003.	0.8	35

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109	Nucleosome positioning and kinetics near transcription-start-site barriers are controlled by interplay between active remodeling and DNA sequence. Nucleic Acids Research, 2014, 42, 128-136.	6.5	35
110	Proteolysis of Mitotic Chromosomes Induces Gradual and Anisotropic Decondensation Correlated with a Reduction of Elastic Modulus and Structural Sensitivity to Rarely Cutting Restriction Enzymes. Molecular Biology of the Cell, 2006, 17, 104-113.	0.9	34
111	High-resolution, genome-wide mapping of positive supercoiling in chromosomes. ELife, 2021, 10, .	2.8	34
112	First-order phase transitions in the hard-ellipsoid fluid from variationally optimized direct pair correlations. Physical Review A, 1989, 39, 2050-2062.	1.0	32
113	Micromechanical Studies of Mitotic Chromosomes. Current Topics in Developmental Biology, 2003, 55, 75-141.	1.0	32
114	Twist-bend coupling and the statistical mechanics of the twistable wormlike-chain model of DNA: Perturbation theory and beyond. Physical Review E, 2019, 99, 032414.	0.8	31
115	Kinetic proofreading can explain the supression of supercoiling of circular DNA molecules by type-II topoisomerases. Physical Review E, 2001, 63, 031909.	0.8	30
116	Polymer brush in contact with a mixture of solvents. Macromolecules, 1993, 26, 313-319.	2.2	29
117	Single-molecule analysis uncovers the difference between the kinetics of DNA decatenation by bacterial topoisomerases I and III. Nucleic Acids Research, 2014, 42, 11657-11667.	6.5	29
118	Supercoiling DNA Locates Mismatches. Physical Review Letters, 2017, 119, 147801.	2.9	28
119	Order-Induced Period Doubling during Surface-Directed Spinodal Decomposition. Europhysics Letters, 1994, 28, 323-328.	0.7	27
120	Equilibrium phase transitions in a porous medium. Physical Review B, 1996, 53, 148-158.	1.1	27
121	Scaling properties of gel electrophoresis of DNA. Biopolymers, 1998, 38, 665-667.	1.2	27
122	Surface-induced nucleation. Physical Review E, 1994, 50, 1674-1677.	0.8	26
123	Phase Separation of Grafted Copolymers. Macromolecules, 1994, 27, 6428-6442.	2.2	26
124	Stochastic Ratchet Mechanisms for Replacement of Proteins Bound to DNA. Physical Review Letters, 2014, 112, 238101.	2.9	26
125	Microphase separation in charged diblock copolymers: the weak segregation limit. Macromolecules, 1991, 24, 2134-2136.	2.2	25
126	Remote control of DNA-acting enzymes by varying the Brownian dynamics of a distant DNA end. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 16546-16551.	3.3	25

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127	The internal â€˜slitheringâ€™ dynamics of supercoiled DNA. Physica A: Statistical Mechanics and Its Applications, 1997, 244, 263-277.	1.2	24
128	How do DNA-bound proteins leave their binding sites? The role of facilitated dissociation. Current Opinion in Chemical Biology, 2019, 53, 118-124.	2.8	24
129	Effects of altering histone posttranslational modifications on mitotic chromosome structure and mechanics. Molecular Biology of the Cell, 2019, 30, 820-827.	0.9	24
130	Scaling of Linking and Writhing Numbers for Spherically Confined and Topologically Equilibrated Flexible Polymers. Journal of Statistical Physics, 2011, 142, 1353-1370.	0.5	23
131	DNA tension-modulated translocation and loop extrusion by SMC complexes revealed by molecular dynamics simulations. Nucleic Acids Research, 2022, 50, 4974-4987.	6.5	23
132	An assay for 26S proteasome activity based on fluorescence anisotropy measurements of dye-labeled protein substrates. Analytical Biochemistry, 2016, 509, 50-59.	1.1	22
133	Coupling of intramolecular and intermolecular linkage complexity of two DNAs. Physical Review E, 1999, 59, 900-912.	0.8	21
134	Unzipping dynamics of long DNAs. Physical Review E, 2002, 66, 051914.	0.8	21
135	An orthogonal single-molecule experiment reveals multiple-attempt dynamics of type IA topoisomerases. Nature Structural and Molecular Biology, 2017, 24, 484-490.	3.6	21
136	Static and dynamic collective correlations of polymer brushes. Physical Review E, 1993, 48, 2739-2743.	0.8	20
137	Intrinsic and force-generated cooperativity in a theory of DNA-bending proteins. Physical Review E, 2010, 82, 051906.	0.8	20
138	Counting proteins bound to a single DNA molecule. Biochemical and Biophysical Research Communications, 2011, 415, 131-134.	1.0	18
139	Age-associated alterations in the micromechanical properties of chromosomes in the mammalian egg. Journal of Assisted Reproduction and Genetics, 2015, 32, 765-769.	1.2	18
140	Self-propulsion and interactions of catalytic particles in a chemically active medium. Physical Review E, 2016, 93, 012611.	0.8	18
141	Effects of electrostatic interactions on ligand dissociation kinetics. Physical Review E, 2018, 97, 022405.	0.8	18
142	Accelerating diffusive nonequilibrium processes in discrete spin systems. Physical Review Letters, 1993, 71, 2070-2073.	2.9	17
143	Defining characteristics of Tn5 Transposase non-specific DNA binding. Nucleic Acids Research, 2006, 34, 2820-2832.	6.5	17
144	The liquid drop nature of nucleoli. Nucleus, 2012, 3, 115-117.	0.6	16

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145	Multimodal interference-based imaging of nanoscale structure and macromolecular motion uncovers UV induced cellular paroxysm. Nature Communications, 2019, 10, 1652.	5.8	16
146	Binding-rebinding dynamics of proteins interacting nonspecifically with a long DNA molecule. Physical Review E, 2013, 88, 040703.	0.8	15
147	Coarse-grained modelling of DNA plectoneme pinning in the presence of base-pair mismatches. Nucleic Acids Research, 2020, 48, 10713-10725.	6.5	15
148	Layering Phase Separation of Densely Grafted Diblock Copolymers. Macromolecules, 1995, 28, 7817-7821.	2.2	14
149	Removal of DNA-bound proteins by DNA twisting. Physical Review E, 2001, 64, 061909.	0.8	14
150	Dynamics of Chromosome Compaction during Mitosis. Experimental Cell Research, 2002, 277, 48-56.	1.2	14
151	Studies of bacterial topoisomerases I and III at the single-molecule level. Biochemical Society Transactions, 2013, 41, 571-575.	1.6	14
152	Crossover-site sequence and DNA torsional stress control strand interchanges by the Bxb1 site-specific serine recombinase. Nucleic Acids Research, 2016, 44, 8921-8932.	6.5	14
153	Torque and buckling in stretched intertwined double-helix DNAs. Physical Review E, 2017, 95, 052401.	0.8	14
154	Pressure studies on phase transitions in 4-alkoxyphenyl-4â€™-nitrobenzoyloxybenzoates. Physical Review A, 1989, 39, 4341-4344.	1.0	13
155	Single-molecule micromanipulation studies of methylated DNA. Biophysical Journal, 2021, 120, 2148-2155.	0.2	13
156	Mixtures in the frustrated spin-gas theory of reentrant polar liquid crystals. Physical Review A, 1989, 39, 4201-4206.	1.0	12
157	Defect-facilitated buckling in supercoiled double-helix DNA. Physical Review E, 2018, 97, 022416.	0.8	12
158	Twist and shout (and pull): Molecular chiropractors undo DNA. Proceedings of the National Academy of Sciences of the United States of America, 1997, 94, 11770-11772.	3.3	11
159	Receptor-Ligand Rebinding Kinetics in Confinement. Biophysical Journal, 2019, 116, 1609-1624.	0.2	11
160	Grafted polymers under the influence of external fields. Journal of Chemical Physics, 1993, 99, 8142-8153.	1.2	10
161	Entropic Compression of Interacting DNA Loops. Physical Review Letters, 2005, 95, 078104.	2.9	10
162	Tn5 transposase loops DNA in the absence of Tn5 transposon end sequences. Molecular Microbiology, 2006, 62, 1558-1568.	1.2	10

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163	Transient and Asymptotic Domain Growth in the 3D Ising Model with Conserved Spin. Europhysics Letters, 1994, 26, 653-658.	0.7	8
164	Filling of the one-dimensional lattice byk-mers proceeds via fast power-law-like kinetics. Physical Review E, 2006, 74, 041602.	0.8	8
165	Forces, fluctuations, and self-organization in the nucleus. Molecular Biology of the Cell, 2015, 26, 3915-3919.	0.9	8
166	Role of transcription factor-mediated nucleosome disassembly in PHO5 gene expression. Scientific Reports, 2016, 6, 20319.	1.6	8
167	Controlled rotation mechanism of DNA strand exchange by the Hin serine recombinase. Scientific Reports, 2016, 6, 23697.	1.6	8
168	Nucleation of Multiple Buckled Structures in Intertwined DNA Double Helices. Physical Review Letters, 2017, 119, 188103.	2.9	7
169	A comparison of nucleosome organization in Drosophila cell lines. PLoS ONE, 2017, 12, e0178590.	1.1	6
170	DNA Mechanics and Topology. Advances in Experimental Medicine and Biology, 2018, 1092, 11-39.	0.8	6
171	Physicochemical mechanotransduction alters nuclear shape and mechanics via heterochromatin formation. Molecular Biology of the Cell, 2019, , mbc.E19-05-0286.	0.9	6
172	Micromanipulation of prophase I chromosomes from mouse spermatocytes reveals high stiffness and gel-like chromatin organization. Communications Biology, 2020, 3, 542.	2.0	6
173	Short note on the scaling behavior of communication by â€˜slitheringâ€™ on a supercoiled DNA. Physica A: Statistical Mechanics and Its Applications, 2001, 296, 289-292.	1.2	5
174	Linking topology of large DNA molecules. Physica A: Statistical Mechanics and Its Applications, 2010, 389, 2997-3001.	1.2	5
175	Torque correlation length and stochastic twist dynamics of DNA. Physical Review E, 2014, 89, 062706.	0.8	5
176	Nuclear physics (of the cell, not the atom). Molecular Biology of the Cell, 2014, 25, 3466-3469.	0.9	5
177	A sticky problem for chromosomes. Nature, 2016, 535, 234-235.	13.7	5
178	Micromechanics of Single Supercoiled DNA Molecules. The IMA Volumes in Mathematics and Its Applications, 2009, , 225-249.	0.5	5
179	Exact Pair Correlations in a One-Dimensional Fluid of Hard Cores With Orientational and Translational Degrees of Freedom. Physical Review Letters, 1989, 62, 543-546.	2.9	4
180	Course 7 Introduction to single-DNA micromechanics. Les Houches Summer School Proceedings, 2005, , 211-270.	0.2	4

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181	Pulling Apart Catalytically Active Tn5 Synaptic Complexes Using Magnetic Tweezers. Journal of Molecular Biology, 2007, 367, 319-327.	2.0	4
182	Range of Interaction between DNA-Bending Proteins is Controlled by the Second-Longest Correlation Length for Bending Fluctuations. Physical Review Letters, 2012, 109, 248301.	2.9	4
183	Single-Molecule Magnetic Tweezer Analysis of Topoisomerases. Methods in Molecular Biology, 2018, 1703, 139-152.	0.4	4
184	Physics and Biology (of Chromosomes). Journal of Molecular Biology, 2020, 432, 621-631.	2.0	4
185	Accurate Calculation of Isotropic-Plastic and Isotropic-Nematic Transitions in the Hard-Ellipsoid Fluid. Physical Review Letters, 1988, 60, 1101-1101.	2.9	3
186	Cluster scaling geometry in critical spin systems. Physical Review B, 1992, 45, 5023-5026.	1.1	3
187	DNA Mechanics. , 2018, , 3-40.		3
188	Publisherâ€™s Note: Effects of DNA-distorting proteins on DNA elastic response [Phys. Rev. E68, 011905 (2003)]. Physical Review E, 2003, 68, .	0.8	2
189	Two Distinct Overstretched DNA States. Biophysical Journal, 2011, 100, 176a.	0.2	2
190	Dependence of the structure and mechanics of metaphase chromosomes on oxidized cysteines. Chromosome Research, 2016, 24, 339-353.	1.0	2
191	Microscopic DNA fluctuations are in accord with macroscopic DNA stretching elasticity without strong dependence on force-field choice. , 2003, , 193-204.		1
192	Stretched, Twisted, Supercoiled and Braided DNA. Materials Research Society Symposia Proceedings, 1996, 463, 31.	0.1	0
193	Structure and Dynamics of the Bacterial Chromosome. Biophysical Journal, 2009, 96, 20a.	0.2	0
194	Modeling The Behavior Of DNA-Loop-Extruding Enzymes. Biophysical Journal, 2009, 96, 418a.	0.2	0
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