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	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
2	Liquid chromatin Hi-C characterizes compartment-dependent chromatin interaction dynamics. Nature Genetics, 2021, 53, 367-378.	9.4	84
3	HP1Î± is a chromatin crosslinker that controls nuclear and mitotic chromosome mechanics. ELife, 2021, 10, .	2.8	69
4	Single-molecule micromanipulation studies of methylated DNA. Biophysical Journal, 2021, 120, 2148-2155.	0.2	13
5	High-resolution, genome-wide mapping of positive supercoiling in chromosomes. ELife, 2021, 10, .	2.8	34
6	Physics and Biology (of Chromosomes). Journal of Molecular Biology, 2020, 432, 621-631.	2.0	4
7	Coarse-grained modelling of DNA plectoneme pinning in the presence of base-pair mismatches. Nucleic Acids Research, 2020, 48, 10713-10725.	6.5	15
8	Micromanipulation of prophase I chromosomes from mouse spermatocytes reveals high stiffness and gel-like chromatin organization. Communications Biology, 2020, 3, 542.	2.0	6
9	The Smc5/6 Core Complex Is a Structure-Specific DNA Binding and Compacting Machine. Molecular Cell, 2020, 80, 1025-1038.e5.	4.5	46
10	Chromosome organization by one-sided and two-sided loop extrusion. ELife, 2020, 9, .	2.8	90
11	Physicochemical mechanotransduction alters nuclear shape and mechanics via heterochromatin formation. Molecular Biology of the Cell, 2019, 30, 2320-2330.	0.9	77
12	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
13	Physicochemical mechanotransduction alters nuclear shape and mechanics via heterochromatin formation. Molecular Biology of the Cell, 2019, , mbc.E19-05-0286.	0.9	6
14	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
15	Receptor-Ligand Rebinding Kinetics in Confinement. Biophysical Journal, 2019, 116, 1609-1624.	0.2	11
16	Chromatinâ€™s physical properties shape the nucleus and its functions. Current Opinion in Cell Biology, 2019, 58, 76-84.	2.6	141
17	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
18	Multimodal interference-based imaging of nanoscale structure and macromolecular motion uncovers UV induced cellular paroxysm. Nature Communications, 2019, 10, 1652.	5.8	16

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19	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
20	Effects of altering histone posttranslational modifications on mitotic chromosome structure and mechanics. Molecular Biology of the Cell, 2019, 30, 820-827.	0.9	24
21	Effects of electrostatic interactions on ligand dissociation kinetics. Physical Review E, 2018, 97, 022405.	0.8	18
22	Defect-facilitated buckling in supercoiled double-helix DNA. Physical Review E, 2018, 97, 022416.	0.8	12
23	Single-Molecule Magnetic Tweezer Analysis of Topoisomerases. Methods in Molecular Biology, 2018, 1703, 139-152.	0.4	4
24	DNA Mechanics. , 2018, , 3-40.		3
25	Separate roles for chromatin and lamins in nuclear mechanics. Nucleus, 2018, 9, 119-124.	0.6	42
26	Chromatin histone modifications and rigidity affect nuclear morphology independent of lamins. Molecular Biology of the Cell, 2018, 29, 220-233.	0.9	257
27	DNA Mechanics and Topology. Advances in Experimental Medicine and Biology, 2018, 1092, 11-39.	0.8	6
28	Bend-Induced Twist Waves and the Structure of Nucleosomal DNA. Physical Review Letters, 2018, 121, 088101.	2.9	46
29	Condensin controls mitotic chromosome stiffness and stability without forming a structurally contiguous scaffold. Chromosome Research, 2018, 26, 277-295.	1.0	65
30	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
31	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
32	Compaction and Segregation of Sister Chromatids by Loop-Extruding Enzymes. Biophysical Journal, 2017, 112, 373a.	0.2	0
33	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
34	Supercoiling DNA Locates Mismatches. Physical Review Letters, 2017, 119, 147801.	2.9	28
35	Oligomerization and ATP stimulate condensin-mediated DNA compaction. Scientific Reports, 2017, 7, 14279.	1.6	37
36	Nucleation of Multiple Buckled Structures in Intertwined DNA Double Helices. Physical Review Letters, 2017, 119, 188103.	2.9	7

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37	Mechanics and Buckling of Biopolymeric Shells and Cell Nuclei. Biophysical Journal, 2017, 113, 1654-1663.	0.2	51
38	Torque and buckling in stretched intertwined double-helix DNAs. Physical Review E, 2017, 95, 052401.	0.8	14
39	A comparison of nucleosome organization in Drosophila cell lines. PLoS ONE, 2017, 12, e0178590.	1.1	6
40	Nuclear Blebbing Solely as a Function of Chromatin Compaction State. FASEB Journal, 2017, 31, lb237.	0.2	0
41	Facilitated Dissociation of a Nucleoid Protein from the Bacterial Chromosome. Journal of Bacteriology, 2016, 198, 1735-1742.	1.0	38
42	Micromechanical Study of Mammalian Metaphase Chromosomes and Nuclei. Biophysical Journal, 2016, 110, 522a.	0.2	0
43	Chromosome Compaction by Active Loop Extrusion. Biophysical Journal, 2016, 110, 2162-2168.	0.2	266
44	Dependence of the structure and mechanics of metaphase chromosomes on oxidized cysteines. Chromosome Research, 2016, 24, 339-353.	1.0	2
45	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
46	Self-propulsion and interactions of catalytic particles in a chemically active medium. Physical Review E, 2016, 93, 012611.	0.8	18
47	Role of transcription factor-mediated nucleosome disassembly in PHO5 gene expression. Scientific Reports, 2016, 6, 20319.	1.6	8
48	Controlled rotation mechanism of DNA strand exchange by the Hin serine recombinase. Scientific Reports, 2016, 6, 23697.	1.6	8
49	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
50	A sticky problem for chromosomes. Nature, 2016, 535, 234-235.	13.7	5
51	Compaction and segregation of sister chromatids via active loop extrusion. ELife, 2016, 5, .	2.8	256
52	Facilitated Dissociation of Protein from a Single DNA Binding Site. Biophysical Journal, 2015, 108, 205a.	0.2	0
53	Forces, fluctuations, and self-organization in the nucleus. Molecular Biology of the Cell, 2015, 26, 3915-3919.	0.9	8
54	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

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55	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
56	Biophysics of proteinâ€“DNA interactions and chromosome organization. Physica A: Statistical Mechanics and Its Applications, 2015, 418, 126-153.	1.2	49
57	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
58	Torque correlation length and stochastic twist dynamics of DNA. Physical Review E, 2014, 89, 062706.	0.8	5
59	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
60	Multiple-binding-site mechanism explains concentration-dependent unbinding rates of DNA-binding proteins. Nucleic Acids Research, 2014, 42, 3783-3791.	6.5	66
61	Nuclear physics (of the cell, not the atom). Molecular Biology of the Cell, 2014, 25, 3466-3469.	0.9	5
62	Studies of DNA Gyrase at the Single Molecule Level. Biophysical Journal, 2014, 106, 72a-73a.	0.2	0
63	Structure and Mechanical Properties of the Bacterial Chromosome in E.Coli. Biophysical Journal, 2014, 106, 79a.	0.2	0
64	Elastic Twist Dynamics of DNA. Biophysical Journal, 2014, 106, 279a-280a.	0.2	0
65	Stochastic Ratchet Mechanisms for Replacement of Proteins Bound to DNA. Physical Review Letters, 2014, 112, 238101.	2.9	26
66	Torque and Dynamics of Linking Number Relaxation in Stretched Supercoiled DNA. Biophysical Journal, 2013, 104, 1a.	0.2	0
67	Studies of DNA Gyrase at the Single Molecule Level. Biophysical Journal, 2013, 104, 73a.	0.2	0
68	Observation of Synapse Rotation of Engineered Recombinase HIN-H107Y. Biophysical Journal, 2013, 104, 368a.	0.2	0
69	Studies of bacterial topoisomerases I and III at the single-molecule level. Biochemical Society Transactions, 2013, 41, 571-575.	1.6	14
70	The SMC1-SMC3 cohesin heterodimer structures DNA through supercoiling-dependent loop formation. Nucleic Acids Research, 2013, 41, 6149-6160.	6.5	61
71	Binding-rebinding dynamics of proteins interacting nonspecifically with a long DNA molecule. Physical Review E, 2013, 88, 040703.	0.8	15
72	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

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73	A physical sciences network characterization of non-tumorigenic and metastatic cells. Scientific Reports, 2013, 3, 1449.	1.6	146
74	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
75	Bacterial topoisomerase I and topoisomerase III relax supercoiled DNA via distinct pathways. Nucleic Acids Research, 2012, 40, 10432-10440.	6.5	47
76	Histone H1 compacts DNA under force and during chromatin assembly. Molecular Biology of the Cell, 2012, 23, 4864-4871.	0.9	40
77	The liquid drop nature of nucleoli. Nucleus, 2012, 3, 115-117.	0.6	16
78	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
79	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
80	Self-organization of domain structures by DNA-loop-extruding enzymes. Nucleic Acids Research, 2012, 40, 11202-11212.	6.5	447
81	Variation of the folding and dynamics of the <scp>E</scp>scherichia coli chromosome with growth conditions. Molecular Microbiology, 2012, 86, 1318-1333.	1.2	127
82	Micromechanics of Human Mitotic Chromosomes. Biophysical Journal, 2012, 102, 15a-16a.	0.2	0
83	Studying the Differences in Relaxation Activity by Topoisomerase I and III at the Single Molecule Level. Biophysical Journal, 2012, 102, 51a.	0.2	0
84	Remote Control of DNA-Acting Enzymes by Molecular Boundary Conditions. Biophysical Journal, 2012, 102, 70a.	0.2	0
85	The Longitudinal Correlation Length Controls the Range of Interactions Between DNA-Bending Proteins. Biophysical Journal, 2012, 102, 74a.	0.2	0
86	Structure and Dynamics of the Bacterial Chromosome in E. coli. Biophysical Journal, 2012, 102, 422a.	0.2	0
87	Visualizing Higher-Order Conformations in Single DNA Molecules. Biophysical Journal, 2012, 102, 276a.	0.2	0
88	Competition between curls and plectonemes near the buckling transition of stretched supercoiled DNA. Physical Review E, 2012, 85, 011908.	0.8	74
89	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
90	Maxwell Relations for Single-DNA Experiments: Monitoring Protein Binding and Double-Helix Torque with Force-Extension Measurements. Biophysical Journal, 2011, 100, 610a.	0.2	0

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91	Two Distinct Overstretched DNA States. Biophysical Journal, 2011, 100, 176a.	0.2	2
92	Micromechanics of human mitotic chromosomes. Physical Biology, 2011, 8, 015003.	0.8	35
93	Analytical Description of Extension, Torque, and Supercoiling Radius of a Stretched Twisted DNA. Physical Review Letters, 2011, 106, 138104.	2.9	60
94	Counting proteins bound to a single DNA molecule. Biochemical and Biophysical Research Communications, 2011, 415, 131-134.	1.0	18
95	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
96	Underwound DNA under Tension: Structure, Elasticity, and Sequence-Dependent Behaviors. Physical Review Letters, 2011, 107, 108102.	2.9	92
97	Concentration-dependent exchange accelerates turnover of proteins bound to double-stranded DNA. Nucleic Acids Research, 2011, 39, 2249-2259.	6.5	148
98	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
99	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
100	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
101	Linking topology of large DNA molecules. Physica A: Statistical Mechanics and Its Applications, 2010, 389, 2997-3001.	1.2	5
102	Interdependence of behavioural variability and response to small stimuli in bacteria. Nature, 2010, 468, 819-823.	13.7	67
103	Mitotic chromosomes are constrained by topoisomerase IIâ€“sensitive DNA entanglements. Journal of Cell Biology, 2010, 188, 653-663.	2.3	57
104	Modulation of HUâ€“DNA interactions by salt concentration and applied force. Nucleic Acids Research, 2010, 38, 6176-6185.	6.5	78
105	Two distinct overstretched DNA states. Nucleic Acids Research, 2010, 38, 5594-5600.	6.5	91
106	Self Organization in DNA-Loop-Extruding Enzymes. Biophysical Journal, 2010, 98, 469a.	0.2	0
107	Structure and Dynamics of the Bacterial Chromosome in E. Coli Monitored by Gfp-Fis. Biophysical Journal, 2010, 98, 658a.	0.2	0
108	Salt Concentration and Force Affect HU-DNA Interaction. Biophysical Journal, 2010, 98, 267a.	0.2	0

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109	DNA Shape Recognition by the Nucleoid Protein Fis and Its Role in Chromosome Compaction and DNA Recombination. Biophysical Journal, 2010, 98, 206a.	0.2	0
110	Intrinsic and force-generated cooperativity in a theory of DNA-bending proteins. Physical Review E, 2010, 82, 051906.	0.8	20
111	Theory for the DNA Supercoiling Transition in Extension-Rotation Experiments. Biophysical Journal, 2010, 98, 469a.	0.2	0
112	Direct Visualization of Fis-DNA Interactions. Biophysical Journal, 2010, 98, 206a.	0.2	0
113	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
114	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
115	Structure and Dynamics of the Bacterial Chromosome. Biophysical Journal, 2009, 96, 20a.	0.2	0
116	Modeling The Behavior Of DNA-Loop-Extruding Enzymes. Biophysical Journal, 2009, 96, 418a.	0.2	0
117	Visualization of Force-Mediated Looping Dynamics of a Single DNA Molecule by the E. coli protein FIS. Biophysical Journal, 2009, 96, 418a.	0.2	0
118	Micromechanics of Single Supercoiled DNA Molecules. The IMA Volumes in Mathematics and Its Applications, 2009, , 225-249.	0.5	5
119	Micromechanical studies of mitotic chromosomes. Chromosome Research, 2008, 16, 469-497.	1.0	108
120	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
121	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
122	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
123	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
124	Pulling Apart Catalytically Active Tn5 Synaptic Complexes Using Magnetic Tweezers. Journal of Molecular Biology, 2007, 367, 319-327.	2.0	4
125	Torque and dynamics of linking number relaxation in stretched supercoiled DNA. Physical Review E, 2007, 76, 021926.	0.8	158
126	Mechanism of Chromosome Compaction and Looping by the Escherichia coli Nucleoid Protein Fis. Journal of Molecular Biology, 2006, 364, 777-798.	2.0	141

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127	Tn5 transposase loops DNA in the absence of Tn5 transposon end sequences. Molecular Microbiology, 2006, 62, 1558-1568.	1.2	10
128	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
129	Defining characteristics of Tn5 Transposase non-specific DNA binding. Nucleic Acids Research, 2006, 34, 2820-2832.	6.5	17
130	Filling of the one-dimensional lattice byk-mers proceeds via fast power-law-like kinetics. Physical Review E, 2006, 74, 041602.	0.8	8
131	Course 7 Introduction to single-DNA micromechanics. Les Houches Summer School Proceedings, 2005, , 211-270.	0.2	4
132	Entropic Compression of Interacting DNA Loops. Physical Review Letters, 2005, 95, 078104.	2.9	10
133	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
134	Formation of loops in DNA under tension. Physical Review E, 2005, 71, 021911.	0.8	68
135	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
136	Single Chromatin Fiber Stretching Reveals Physically Distinct Populations of Disassembly Events. Biophysical Journal, 2005, 88, 3572-3583.	0.2	85
137	Statistics of loop formation along double helix DNAs. Physical Review E, 2005, 71, 061905.	0.8	104
138	Overstretching and force-driven strand separation of double-helix DNA. Physical Review E, 2004, 70, 011910.	0.8	146
139	How do site-specific DNA-binding proteins find their targets?. Nucleic Acids Research, 2004, 32, 3040-3052.	6.5	813
140	Micromechanical Analysis of the Binding of DNA-Bending Proteins HMGB1, NHP6A, and HU Reveals Their Ability To Form Highly Stable DNAâˆ'Protein Complexesâ€. Biochemistry, 2004, 43, 13867-13874.	1.2	139
141	Localized Single-Stranded Bubble Mechanism for Cyclization of Short Double Helix DNA. Physical Review Letters, 2004, 93, 108108.	2.9	237
142	Near-field-magnetic-tweezer manipulation of single DNA molecules. Physical Review E, 2004, 70, 011905.	0.8	144
143	Effects of DNA-distorting proteins on DNA elastic response. Physical Review E, 2003, 68, 011905.	0.8	100
144	Micromechanics of chromatin and chromosomes. Biochemistry and Cell Biology, 2003, 81, 209-220.	0.9	36

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145	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
146	The micromechanics of DNA. Physics World, 2003, 16, 37-41.	0.0	49
147	Micromechanical Studies of Mitotic Chromosomes. Current Topics in Developmental Biology, 2003, 55, 75-141.	1.0	32
148	Microscopic DNA fluctuations are in accord with macroscopic DNA stretching elasticity without strong dependence on force-field choice. , 2003, , 193-204.		1
149	Force and kinetic barriers to initiation of DNA unzipping. Physical Review E, 2002, 65, 041907.	0.8	49
150	Effect of Internal Friction on Biofilament Dynamics. Physical Review Letters, 2002, 88, 228103.	2.9	47
151	Unzipping dynamics of long DNAs. Physical Review E, 2002, 66, 051914.	0.8	21
152	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
153	The Bending Rigidity of Mitotic Chromosomes. Molecular Biology of the Cell, 2002, 13, 2170-2179.	0.9	70
154	Dynamics of Chromosome Compaction during Mitosis. Experimental Cell Research, 2002, 277, 48-56.	1.2	14
155	Reversible hypercondensation and decondensation of mitotic chromosomes studied using combined chemical-micromechanical techniques. Journal of Cellular Biochemistry, 2002, 85, 422-434.	1.2	68
156	Theoretical models for single-molecule DNA and RNA experiments: from elasticity to unzipping. Comptes Rendus Physique, 2002, 3, 569-584.	0.3	49
157	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
158	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
159	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
160	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
161	Probing Chromosome Structure with Dynamic Force Relaxation. Physical Review Letters, 2001, 86, 360-363.	2.9	45
162	Structural transitions in DNA driven by external force and torque. Physical Review E, 2001, 63, 051903.	0.8	105

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163	Removal of DNA-bound proteins by DNA twisting. Physical Review E, 2001, 64, 061909.	0.8	14
164	One- and three-dimensional pathways for proteins to reach specific DNA sites. EMBO Journal, 2000, 19, 6546-6557.	3.5	163
165	Reversible and Irreversible Unfolding of Mitotic Newt Chromosomes by Applied Force. Molecular Biology of the Cell, 2000, 11, 269-276.	0.9	94
166	Structural Transitions of a Twisted and Stretched DNA Molecule. Physical Review Letters, 1999, 83, 1066-1069.	2.9	268
167	A kinetic proofreading mechanism for disentanglement of DNA by topoisomerases. Nature, 1999, 401, 932-935.	13.7	124
168	Coupling of intramolecular and intermolecular linkage complexity of two DNAs. Physical Review E, 1999, 59, 900-912.	0.8	21
169	Scaling properties of gel electrophoresis of DNA. Biopolymers, 1998, 38, 665-667.	1.2	27
170	DNA under high tension: Overstretching, undertwisting, and relaxation dynamics. Physical Review E, 1998, 57, 2134-2149.	0.8	120
171	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
172	Mechanics of Microtubule-Based Membrane Extension. Physical Review Letters, 1997, 79, 4497-4500.	2.9	213
173	Supercoiled and braided DNA under tension. Physical Review E, 1997, 55, 1758-1772.	0.8	71
174	Polymer Models of Meiotic and Mitotic Chromosomes. Molecular Biology of the Cell, 1997, 8, 2217-2231.	0.9	115
175	Stretching must twist DNA. Europhysics Letters, 1997, 38, 183-188.	0.7	121
176	Elasticity and Structure of Eukaryote Chromosomes Studied by Micromanipulation and Micropipette Aspiration. Journal of Cell Biology, 1997, 139, 1-12.	2.3	152
177	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
178	Extension of torsionally stressed DNA by external force. Biophysical Journal, 1997, 73, 123-132.	0.2	109
179	Driving proteins off DNA using applied tension. Biophysical Journal, 1997, 73, 2173-2178.	0.2	109
180	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

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181	Interphase chromosomes undergo constrained diffusional motion in living cells. Current Biology, 1997, 7, 930-939.	1.8	640
182	The internal â€˜slitheringâ€™ dynamics of supercoiled DNA. Physica A: Statistical Mechanics and Its Applications, 1997, 244, 263-277.	1.2	24
183	Stretched, Twisted, Supercoiled and Braided DNA. Materials Research Society Symposia Proceedings, 1996, 463, 31.	0.1	0
184	Equilibrium phase transitions in a porous medium. Physical Review B, 1996, 53, 148-158.	1.1	27
185	Phase ordering in the Ising model with conserved spin. Physical Review E, 1995, 52, 2522-2534.	0.8	54
186	Transient Wetting and 2D Spinodal Decomposition in a Binary Polymer Blend. Europhysics Letters, 1995, 29, 353-358.	0.7	70
187	Layering Phase Separation of Densely Grafted Diblock Copolymers. Macromolecules, 1995, 28, 7817-7821.	2.2	14
188	Statistical mechanics of supercoiled DNA. Physical Review E, 1995, 52, 2912-2938.	0.8	328
189	Stretching DNA. Macromolecules, 1995, 28, 8759-8770.	2.2	2,187
190	Fluctuations and supercoiling of DNA. Science, 1994, 265, 506-508.	6.0	238
191	Microphase Separation of a Dense Two-Component Grafted-Polymer Layer. Europhysics Letters, 1994, 25, 239-244.	0.7	57
192	Order-Induced Period Doubling during Surface-Directed Spinodal Decomposition. Europhysics Letters, 1994, 28, 323-328.	0.7	27
193	Transient and Asymptotic Domain Growth in the 3D Ising Model with Conserved Spin. Europhysics Letters, 1994, 26, 653-658.	0.7	8
194	Electrophoresis of charged polymers: Simulation and scaling in a lattice model of reptation. Physical Review E, 1994, 49, 5303-5309.	0.8	68
195	Surface-induced nucleation. Physical Review E, 1994, 50, 1674-1677.	0.8	26
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