

The bacteriophage ϕ 29 portal motor can package DNA at

Nature

413, 748-752

DOI: 10.1038/35099581

Citation Report

#	ARTICLE	IF	CITATIONS
1	De Haas–van Alphen effect in superconductors. <i>Physics-Uspexhi</i> , 1997, 40, 1069-1070.	0.8	0
2	The N-terminal ATPase site in the large terminase protein gp17 is critically required for DNA packaging in bacteriophage T4 1 Edited by M. Gottesman. <i>Journal of Molecular Biology</i> , 2001, 314, 401-411.	2.0	69
3	Whither crystallography. , 2001, 8, 909-909.		1
4	DNA packaging and ejection forces in bacteriophage. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2001, 98, 13671-13674.	3.3	317
5	Simple model for the kinetics of packaging of DNA into a capsid against an external force. <i>Physical Review E</i> , 2002, 65, 052902.	0.8	5
6	Unfolding Proteins under External Forces: A Solvable Model under the Self-Consistent Pair Contact Probability Approximation. <i>Physical Review Letters</i> , 2002, 89, 068103.	2.9	18
7	Optical tweezers system measuring the change in light momentum flux. <i>Review of Scientific Instruments</i> , 2002, 73, 2308-2316.	0.6	29
8	Single pilus motor forces exceed 100 pN. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002, 99, 16012-16017.	3.3	358
9	Computer Modeling of Three-dimensional Structure of DNA-packaging RNA (pRNA) Monomer, Dimer, and Hexamer of Phi29 DNA Packaging Motor. <i>Journal of Biological Chemistry</i> , 2002, 277, 20794-20803.	1.6	65
10	pH Reduction as a Trigger for Dissociation of Herpes Simplex Virus Type 1 Scaffolds. <i>Journal of Virology</i> , 2002, 76, 7407-7417.	1.5	39
11	Sequence analysis of bacteriophage T4 DNA packaging/terminase genes 16 and 17 reveals a common ATPase center in the large subunit of viral terminases. <i>Nucleic Acids Research</i> , 2002, 30, 4009-4021.	6.5	115
12	Structure and function of ϕ 29 hexameric RNA that drives the viral DNA packaging motor: Review. <i>Progress in Molecular Biology and Translational Science</i> , 2002, 72, 415-472.	1.9	53
13	Bacteriophage ϕ 29 DNA packaging. <i>Advances in Virus Research</i> , 2002, 58, 255-294.	0.9	86
14	Single Molecule Imaging and Manipulation. <i>Chimia</i> , 2002, 56, 506-514.	0.3	5
15	Optical Trapping: A Versatile Technique for Biomanipulation. <i>Applied Spectroscopy</i> , 2002, 56, 300A-312A.	1.2	41
16	Common Principles in Viral Entry. <i>Annual Review of Microbiology</i> , 2002, 56, 521-538.	2.9	97
17	Preliminary crystallographic analysis of the bacteriophage P22 portal protein. <i>Journal of Structural Biology</i> , 2002, 139, 46-54.	1.3	46
18	DNA Packaging: A New Class of Molecular Motors. <i>Current Biology</i> , 2002, 12, R96-R98.	1.8	44

#	ARTICLE	IF	CITATIONS
19	Force spectroscopy of single DNA and RNA molecules. <i>Current Opinion in Structural Biology</i> , 2002, 12, 330-336.	2.6	162
20	Mechanical Fingerprints of DNA Drug Complexes. <i>Single Molecules</i> , 2002, 3, 97-103.	1.7	47
22	The DNA site utilized by bacteriophage P22 for initiation of DNA packaging. <i>Molecular Microbiology</i> , 2002, 45, 1631-1646.	1.2	69
23	Sequential model of phage PRD1 DNA delivery: active involvement of the viral membrane. <i>Molecular Microbiology</i> , 2002, 46, 1199-1209.	1.2	75
24	The effect of force on thermodynamics and kinetics of single molecule reactions. <i>Biophysical Chemistry</i> , 2002, 101-102, 513-533.	1.5	118
25	Investigation of viral DNA packaging using molecular mechanics models. <i>Biophysical Chemistry</i> , 2002, 101-102, 475-484.	1.5	109
26	Reverse engineering of the giant muscle protein titin. <i>Nature</i> , 2002, 418, 998-1002.	13.7	487
27	The light fantastic. <i>Nature</i> , 2002, 419, 125-127.	13.7	10
28	Structure of a viral DNA gatekeeper at 10 Å resolution by cryo-electron microscopy. <i>EMBO Journal</i> , 2003, 22, 1255-1262.	3.5	124
29	Stretching DNA and RNA to probe their interactions with proteins. <i>Current Opinion in Structural Biology</i> , 2003, 13, 266-274.	2.6	92
30	Rotary protein motors. <i>Trends in Cell Biology</i> , 2003, 13, 114-121.	3.6	149
31	Only one pRNA hexamer but multiple copies of the DNA-packaging protein gp16 are needed for the motor to package bacterial virus phi29 genomic DNA. <i>Virology</i> , 2003, 309, 108-113.	1.1	31
32	Use of PEG to acquire highly soluble DNA-packaging enzyme gp16 of bacterial virus phi29 for stoichiometry quantification. <i>Journal of Virological Methods</i> , 2003, 109, 235-244.	1.0	24
33	Force steps during viral DNA packaging?. <i>Journal of the Mechanics and Physics of Solids</i> , 2003, 51, 2239-2257.	2.3	29
34	A director-field model of DNA packaging in viral capsids. <i>Journal of the Mechanics and Physics of Solids</i> , 2003, 51, 1815-1847.	2.3	39
35	A structural genomics initiative on yeast proteins. <i>Journal of Synchrotron Radiation</i> , 2003, 10, 4-8.	1.0	20
36	The eternal molecule. <i>Nature</i> , 2003, 421, 396-396.	13.7	17
37	Ten years of tension: single-molecule DNA mechanics. <i>Nature</i> , 2003, 421, 423-427.	13.7	1,203

#	ARTICLE	IF	CITATIONS
38	The future of bacteriophage biology. Nature Reviews Genetics, 2003, 4, 471-477.	7.7	143
39	Resource Letter: LBOT-1: Laser-based optical tweezers. American Journal of Physics, 2003, 71, 201-215.	0.3	213
40	Viral Genome Organization. Advances in Protein Chemistry, 2003, 64, 219-258.	4.4	9
41	Nonuniform Donnan Equilibrium within Bacteriophages Packed with DNA. Journal of Physical Chemistry B, 2003, 107, 8074-8077.	1.2	32
42	Thermodynamics of DNA Packaging Inside a Viral Capsid: The Role of DNA Intrinsic Thickness. Journal of Molecular Biology, 2003, 330, 485-492.	2.0	68
43	Defining the ATPase Center of Bacteriophage T4 DNA Packaging Machine: Requirement for a Catalytic Glutamate Residue in the Large Terminase Protein gp17. Journal of Molecular Biology, 2003, 331, 139-154.	2.0	35
44	Osmotic Shock and the Strength of Viral Capsids. Biophysical Journal, 2003, 85, 70-74.	0.2	94
45	Variable Symmetry in Salmonella typhimurium Flagellar Motors. Biophysical Journal, 2003, 84, 571-577.	0.2	60
46	Forces and Pressures in DNA Packaging and Release from Viral Capsids. Biophysical Journal, 2003, 84, 1616-1627.	0.2	238
47	Models of bacteriophage DNA packaging motors. Journal of Structural Biology, 2003, 141, 179-188.	1.3	47
48	Channeling phage DNA through membranes: from in vivo to in vitro. Research in Microbiology, 2003, 154, 283-287.	1.0	33
49	[7] Optical-trap force transducer that operates by direct measurement of light momentum. Methods in Enzymology, 2003, 361, 134-162.	0.4	258
50	Assembly of the Herpes Simplex Virus Capsid: Identification of Soluble Scaffold-Portal Complexes and Their Role in Formation of Portal-Containing Capsids. Journal of Virology, 2003, 77, 9862-9871.	1.5	73
51	Requirement of the Adenovirus IVa2 Protein for Virus Assembly. Journal of Virology, 2003, 77, 3586-3594.	1.5	77
52	RNA Packaging Device of Double-stranded RNA Bacteriophages, Possibly as Simple as Hexamer of P4 Protein. Journal of Biological Chemistry, 2003, 278, 48084-48091.	1.6	56
53	Sequence-Dependent Pausing of Single Lambda Exonuclease Molecules. Science, 2003, 301, 1914-1918.	6.0	128
54	Cohesive energy, stability, and structural transitions in polyelectrolyte bundles. Physical Review E, 2003, 68, 051902.	0.8	5
55	Virus shapes and buckling transitions in spherical shells. Physical Review E, 2003, 68, 051910.	0.8	365

#	ARTICLE	IF	CITATIONS
56	Particle transport in asymmetric scanning-line optical tweezers. Physical Review E, 2003, 68, 051907.	0.8	17
57	Unintended filtering in a typical photodiode detection system for optical tweezers. Journal of Applied Physics, 2003, 93, 3167-3176.	1.1	81
58	Mechanics of DNA packaging in viruses. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 3173-3178.	3.3	260
59	A Viral RNA That Binds ATP and Contains a Motif Similar to an ATP-binding Aptamer from SELEX. Journal of Biological Chemistry, 2003, 278, 7119-7125.	1.6	47
60	Osmotic pressure inhibition of DNA ejection from phage. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 9292-9295.	3.3	296
61	Biological Single Molecule Applications and Advanced Biosensing. Journal of Chromatography Library, 2003, , 241-263.	0.1	3
62	Hybrid Vigor: Hybrid Methods In Viral Structure Determination. Advances in Protein Chemistry, 2003, 64, 37-91.	4.4	6
63	Studying Large Viruses. Advances in Protein Chemistry, 2003, 64, 379-408.	4.4	9
64	Methods Used to Study the Structure of DNA. , 2004, , 203-234.		2
66	Single Molecule Techniques for Biomedicine and Pharmacology. Current Pharmaceutical Biotechnology, 2004, 5, 243-257.	0.9	23
67	Main features on tailed phage, host recognition and DNA uptake. Frontiers in Bioscience - Landmark, 2004, 9, 1228.	3.0	64
68	Dynamics of polymer packaging. Journal of Chemical Physics, 2004, 121, 8635.	1.2	69
69	Stretching an adsorbed polymer globule. Physical Review E, 2004, 70, 012801.	0.8	21
70	Exact solution of a linear molecular motor model driven by two-step fluctuations and subject to protein friction. Physical Review E, 2004, 70, 021905.	0.8	14
71	An introduction to the mechanics of DNA. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2004, 362, 1265-1279.	1.6	46
72	MOLECULAR BIOLOGY: Unraveling DNA Condensation with Optical Tweezers. Science, 2004, 305, 188-190.	6.0	71
73	Direct observation of RuvAB-catalyzed branch migration of single Holliday junctions. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 11605-11610.	3.3	46
74	Biomolecular Motors. Nanostructure Science and Technology, 2004, , 549-574.	0.1	1

#	ARTICLE	IF	CITATIONS
75	Methods in Modern Biophysics. , 2004, , .		8
76	Statics and dynamics of condensed DNA within phages and globules. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2004, 362, 1497-1517.	1.6	62
77	The Functional Domains of Bacteriophage T4 Terminase. Journal of Biological Chemistry, 2004, 279, 40795-40801.	1.6	78
78	Bacteriophage capsids: Tough nanoshells with complex elastic properties. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 7600-7605.	3.3	317
79	Packaging motor from double-stranded RNA bacteriophage ϕ 12 acts as an obligatory passive conduit during transcription. Nucleic Acids Research, 2004, 32, 3515-3521.	6.5	32
80	Phage Taxonomy: We Agree To Disagree. Journal of Bacteriology, 2004, 186, 7029-7031.	1.0	59
81	Terminal protein-induced stretching of bacteriophage ϕ 29 DNA. Journal of Microscopy, 2004, 213, 172-179.	0.8	0
82	Fluorescence microscopy of colour-tagged nanoparticles that are undergoing thermal motion. Journal of Microscopy, 2004, 213, 101-109.	0.8	6
83	The push-pull mechanism of bacteriophage ϕ 29 DNA injection. Molecular Microbiology, 2004, 52, 529-540.	1.2	87
84	Bacteriophage T7 DNA ejection into cells is initiated by an enzyme-like mechanism. Molecular Microbiology, 2004, 53, 1251-1265.	1.2	81
85	Protein displacement by an assembly of helicase molecules aligned along single-stranded DNA. Nature Structural and Molecular Biology, 2004, 11, 531-538.	3.6	121
86	DNA transport into <i>Bacillus subtilis</i> requires proton motive force to generate large molecular forces. Nature Structural and Molecular Biology, 2004, 11, 643-649.	3.6	97
87	The PM2 virion has a novel organization with an internal membrane and pentameric receptor binding spikes. Nature Structural and Molecular Biology, 2004, 11, 850-856.	3.6	60
88	Membrane structure and interactions with protein and DNA in bacteriophage PRD1. Nature, 2004, 432, 122-125.	13.7	133
89	The portal protein plays essential roles at different steps of the SPP1 DNA packaging process. Virology, 2004, 322, 253-263.	1.1	62
90	Real-Time Detection of Single-Molecule DNA Compaction by Condensin I. Current Biology, 2004, 14, 874-880.	1.8	140
91	Helical packaging of semiflexible polymers in bacteriophages. European Biophysics Journal, 2004, 33, 497-505.	1.2	10
92	Packaging double-helical DNA into viral capsids. Biopolymers, 2004, 73, 348-355.	1.2	80

#	ARTICLE	IF	CITATIONS
93	Exploring molecular motors and switches at the single-molecule level. Microscopy Research and Technique, 2004, 65, 194-204.	1.2	24
94	Powering Nanodevices with Biomolecular Motors. Chemistry - A European Journal, 2004, 10, 2110-2116.	1.7	234
95	Direct determination of the equilibrium unbinding potential profile for a short DNA duplex from force spectroscopy data. Applied Physics Letters, 2004, 85, 4792-4794.	1.5	8
96	Measuring the Force Ejecting DNA from Phage. Journal of Physical Chemistry B, 2004, 108, 6838-6843.	1.2	76
97	Force as a Useful Variable in Reactions: Unfolding RNA. Annual Review of Biophysics and Biomolecular Structure, 2004, 33, 363-385.	18.3	69
98	BIONANOMECHANICAL SYSTEMS. Annual Review of Materials Research, 2004, 34, 315-337.	4.3	47
99	Dynamics of Molecular Motors and Polymer Translocation with Sequence Heterogeneity. Biophysical Journal, 2004, 86, 3373-3391.	0.2	97
100	All-Optical Constant-Force Laser Tweezers. Biophysical Journal, 2004, 87, 1972-1980.	0.2	44
101	Mechanical Processes in Biochemistry. Annual Review of Biochemistry, 2004, 73, 705-748.	5.0	721
102	Unravelling DNA. Contemporary Physics, 2004, 45, 277-302.	0.8	18
103	Atomic Snapshots of an RNA Packaging Motor Reveal Conformational Changes Linking ATP Hydrolysis to RNA Translocation. Cell, 2004, 118, 743-755.	13.5	151
104	Evidence that a Local Refolding Event Triggers Maturation of HK97 Bacteriophage Capsid. Journal of Molecular Biology, 2004, 340, 419-433.	2.0	36
105	Bacteriophage T4: Structure, Assembly, and Initiation Infection Studied in Three Dimensions. Advances in Virus Research, 2004, 63, 287-352.	0.9	13
106	Forward and Reverse Motion of Single RecBCD Molecules on DNA. Biophysical Journal, 2004, 86, 1640-1648.	0.2	134
107	Nucleosome remodeling. New Comprehensive Biochemistry, 2004, 39, 421-465.	0.1	2
108	DNA-tension dependence of restriction enzyme activity reveals mechanochemical properties of the reaction pathway. Nucleic Acids Research, 2005, 33, 2676-2684.	6.5	79
109	A general method for manipulating DNA sequences from any organism with optical tweezers. , 2005, , .		0
110	Effect of spermine and DNase on DNA release from bacteriophage T5. European Physical Journal E, 2005, 17, 429-434.	0.7	34

#	ARTICLE	IF	CITATIONS
111	Visualizing and manipulating individual protein molecules. <i>Physiological Measurement</i> , 2005, 26, R119-R153.	1.2	40
112	Loading history determines the velocity of actin-network growth. <i>Nature Cell Biology</i> , 2005, 7, 1219-1223.	4.6	202
113	Maturation of phage T7 involves structural modification of both shell and inner core components. <i>EMBO Journal</i> , 2005, 24, 3820-3829.	3.5	118
115	Real-Time Imaging of DNA Ejection from Single Phage Particles. <i>Current Biology</i> , 2005, 15, 430-435.	1.8	92
116	Virus maturation: dynamics and mechanism of a stabilizing structural transition that leads to infectivity. <i>Current Opinion in Structural Biology</i> , 2005, 15, 227-236.	2.6	160
117	Interaction of the adenovirus major core protein precursor, pVII, with the viral DNA packaging machinery. <i>Virology</i> , 2005, 334, 194-202.	1.1	22
118	Encapsidation of minute virus of mice DNA: aspects of the translocation mechanism revealed by the structure of partially packaged genomes. <i>Virology</i> , 2005, 336, 100-112.	1.1	39
119	Analysis of biological motors via multidimensional fractionation: A strategy. <i>Electrophoresis</i> , 2005, 26, 494-499.	1.3	5
120	Single-Molecule Manipulation Measurements of DNA Transport Proteins. <i>ChemPhysChem</i> , 2005, 6, 813-818.	1.0	15
121	Interaction of the Putative Human Cytomegalovirus Portal Protein pUL104 with the Large Terminase Subunit pUL56 and Its Inhibition by Benzimidazole- d -Ribonucleosides. <i>Journal of Virology</i> , 2005, 79, 14660-14667.	1.5	66
122	DNA knots reveal a chiral organization of DNA in phage capsids. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 9165-9169.	3.3	212
123	Mechanics of Biological Nanotechnology. , 2005, , 693-729.		3
124	Bacterial Virus f29 DNA-Packaging Motor and Its Potential Applications in Gene Therapy and Nanotechnology. , 2005, 300, 285-324.		28
125	Unravelling the Mechanism of RNA-Polymerase Forward Motion by Using Mechanical Force. <i>Physical Review Letters</i> , 2005, 94, 128102.	2.9	60
126	Peeling off an elastica from a smooth attractive substrate. <i>Physical Review E</i> , 2005, 71, 036611.	0.8	48
127	Mechanical properties of viral capsids. <i>Physical Review E</i> , 2005, 72, 021917.	0.8	128
128	Polymer distribution in connected spherical domains. <i>Journal of Chemical Physics</i> , 2005, 122, 214902.	1.2	9
129	Form of Growing Strings. <i>Physical Review Letters</i> , 2005, 95, 098103.	2.9	6

#	ARTICLE	IF	CITATIONS
130	Compression and Free Expansion of Single DNA Molecules in Nanochannels. Physical Review Letters, 2005, 95, 268101.	2.9	120
131	Bacteriophage Lambda Terminase and the Mechanism of Viral DNA Packaging. , 2005, , 5-39.		26
132	RNA Multimerisation in the DNA Packaging Motor of Bacteriophage ϕ 29. Journal of Theoretical Medicine, 2005, 6, 127-134.	0.5	5
133	A Coarse Grained Model for DNA and Polymer Packaging: Statics and Dynamics. Journal of Theoretical Medicine, 2005, 6, 115-117.	0.5	3
134	Binding of pRNA to the N-terminal 14 amino acids of connector protein of bacteriophage ϕ 29. Nucleic Acids Research, 2005, 33, 2640-2649.	6.5	45
135	Molecular Handles for the Mechanical Manipulation of Single-Membrane Proteins in Living Cells. IEEE Transactions on Nanobioscience, 2005, 4, 269-276.	2.2	3
136	A structural model for maturation of the hepatitis B virus core. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 15821-15826.	3.3	127
137	The Procapsid Binding Domain of ϕ 29 Packaging RNA Has a Modular Architecture and Requires 2'-Hydroxyl Groups in Packaging RNA Interaction. Biochemistry, 2005, 44, 9348-9358.	1.2	19
138	Biocompatible Force Sensor with Optical Readout and Dimensions of 6 nm ³ . Nano Letters, 2005, 5, 1509-1514.	4.5	112
139	Bacteriophage ϕ 29 Terminase: Alterations of the High-affinity ATPase Affect Viral DNA Packaging. Journal of Molecular Biology, 2005, 347, 71-80.	2.0	19
140	Structure of the Connector of Bacteriophage T7 at 8Å... Resolution: Structural Homologies of a Basic Component of a DNA Translocating Machinery. Journal of Molecular Biology, 2005, 347, 895-902.	2.0	99
141	Mechanochemistry of T7 DNA Helicase. Journal of Molecular Biology, 2005, 350, 452-475.	2.0	83
142	Repetitive Pulling Catalyzes Co-translocational Unfolding of Barnase During Import Through a Mitochondrial Pore. Journal of Molecular Biology, 2005, 350, 1017-1034.	2.0	53
143	Translocation of Nicked but not Gapped DNA by the Packaging Motor of Bacteriophage ϕ 29. Journal of Molecular Biology, 2005, 351, 100-107.	2.0	20
144	Cooperative Reorganization of a 420 Subunit Virus Capsid. Journal of Molecular Biology, 2005, 352, 723-735.	2.0	28
145	Conservation of the Capsid Structure in Tailed dsDNA Bacteriophages: the Pseudoatomic Structure of ϕ 29. Molecular Cell, 2005, 18, 149-159.	4.5	172
146	Encapsulation and transfer of phage DNA into host cells: From in vivo to single particles studies. Biochimica Et Biophysica Acta - General Subjects, 2005, 1724, 255-261.	1.1	8
147	Mechanism of Force Generation of a Viral DNA Packaging Motor. Cell, 2005, 122, 683-692.	13.5	258

#	ARTICLE	IF	CITATIONS
148	Forces during Bacteriophage DNA Packaging and Ejection. Biophysical Journal, 2005, 88, 851-866.	0.2	254
149	DNA Ejection from Bacteriophage T5: Analysis of the Kinetics and Energetics. Biophysical Journal, 2005, 88, 1364-1370.	0.2	62
150	DNA Packaging in Bacteriophage: Is Twist Important?. Biophysical Journal, 2005, 88, 3912-3923.	0.2	98
151	Temperature Control Methods in a Laser Tweezers System. Biophysical Journal, 2005, 89, 1308-1316.	0.2	170
152	Mechanical Studies of Single Ribosome/mRNA Complexes. Biophysical Journal, 2005, 89, 1909-1919.	0.2	48
153	Ligand Binding Modulates the Mechanical Stability of Dihydrofolate Reductase. Biophysical Journal, 2005, 89, 3337-3344.	0.2	103
154	Force Spectroscopy. , 2005, , 404-428.		2
155	Sequence-Directed DNA Translocation by Purified FtsK. Science, 2005, 307, 586-590.	6.0	163
156	Conformational Transitions of Nongrafted Polymers near an Absorbing Substrate. Physical Review Letters, 2005, 95, 058102.	2.9	87
157	Viral Genome Packaging Machines: Genetics, Structure, and Mechanism. , 2005, , .		43
159	Teaching the principles of statistical dynamics. American Journal of Physics, 2006, 74, 123-133.	0.3	51
160	Hsc70 ATPase: An Insight into Water Dissociation and Joint Catalytic Role of K ⁺ and Mg ²⁺ Metal Cations in the Hydrolysis Reaction. Journal of the American Chemical Society, 2006, 128, 16798-16807.	6.6	59
161	Monte Carlo simulations of polyelectrolytes inside viral capsids. Physical Review E, 2006, 73, 041921.	0.8	54
162	A Model for Viral Genome Packing. Multiscale Modeling and Simulation, 2006, 5, 1264-1279.	0.6	43
163	Specific short hairpin RNA-mediated inhibition of viral DNA packaging of human cytomegalovirus. FEBS Letters, 2006, 580, 6132-6138.	1.3	10
164	Dynamics of DNA Ejection from Bacteriophage. Biophysical Journal, 2006, 91, 411-420.	0.2	76
165	Langevin Dynamics Simulations of Genome Packing in Bacteriophage. Biophysical Journal, 2006, 91, 25-41.	0.2	132
166	A Sticky Chain Model of the Elongation and Unfolding of Escherichia coli P Pili under Stress. Biophysical Journal, 2006, 90, 1521-1534.	0.2	58

#	ARTICLE	IF	CITATIONS
167	Conformational Analysis of Single DNA Molecules Undergoing Entropically Induced Motion in Nanochannels. Biophysical Journal, 2006, 90, 4538-4545.	0.2	194
168	Mechanical Deformation of Spherical Viruses with Icosahedral Symmetry. Biophysical Journal, 2006, 91, 834-841.	0.2	69
169	Interlaced Optical Force-Fluorescence Measurements for Single Molecule Biophysics. Biophysical Journal, 2006, 91, 1069-1077.	0.2	103
170	HIV infection of non-dividing cells: a divisive problem. Retrovirology, 2006, 3, 74.	0.9	64
171	Single-molecule experiments in biological physics: methods and applications. Journal of Physics Condensed Matter, 2006, 18, R531-R583.	0.7	315
172	Self-Avoiding Flexible Polymers under Spherical Confinement. Nano Letters, 2006, 6, 901-905.	4.5	118
173	Assembly of Bacteriophage Lambda Terminase into a Viral DNA Maturation and Packaging Machine. Biochemistry, 2006, 45, 15259-15268.	1.2	71
174	Requirements for Bacillus subtilis bacteriophage ϕ 29 DNA ejection. Gene, 2006, 374, 19-25.	1.0	14
175	Measurement of the total optical angular momentum transfer in optical tweezers. Optics Express, 2006, 14, 6963.	1.7	49
176	Force constant calibration corrections for silicon position detectors in the near-infrared. Optics Express, 2006, 14, 8476.	1.7	0
177	Optical trap stiffness in the presence and absence of spherical aberrations. Applied Optics, 2006, 45, 1812.	2.1	85
178	The MS2 Coat Protein Shell is Likely Assembled Under Tension: A Novel Role for the MS2 Bacteriophage A Protein as Revealed by Small-angle Neutron Scattering. Journal of Molecular Biology, 2006, 355, 1095-1111.	2.0	28
179	Building a Virus from Scratch: Assembly of an Infectious Virus Using Purified Components in a Rigorously Defined Biochemical Assay System. Journal of Molecular Biology, 2006, 357, 1154-1166.	2.0	47
180	A Critical Coiled Coil Motif in the Small Terminase, gp16, from Bacteriophage T4: Insights into DNA Packaging Initiation and Assembly of Packaging Motor. Journal of Molecular Biology, 2006, 358, 67-82.	2.0	24
181	Binding of TmHU to Single dsDNA as Observed by Optical Tweezers. Journal of Molecular Biology, 2006, 359, 769-776.	2.0	26
182	Binding-induced Stabilization and Assembly of the Phage P22 Tail Accessory Factor Gp4. Journal of Molecular Biology, 2006, 363, 558-576.	2.0	47
183	The DNA Translocating ATPase of Bacteriophage T4 Packaging Motor. Journal of Molecular Biology, 2006, 363, 786-799.	2.0	64
184	Visualization of Rad54, a Chromatin Remodeling Protein, Translocating on Single DNA Molecules. Molecular Cell, 2006, 23, 143-148.	4.5	148

#	ARTICLE	IF	CITATIONS
188	Optical interference fields: an excellent tool kit to study Brownian dynamics. , 2006, , .		0
189	Precise determination of object position in 1D optical lattice. , 2006, 6326, 549.		0
190	Dependence of bacteriophage ϕ 29 DNA packaging on ionic conditions studied by optical tweezers manipulation of single DNA molecules. , 2006, , .		0
191	Bionanotechnology for single-cell analysis. International Journal of Nanotechnology, 2006, 3, 314.	0.1	1
192	Portal fusion protein constraints on function in DNA packaging of bacteriophage T4. Molecular Microbiology, 2006, 61, 16-32.	1.2	86
193	Virus DNA translocation: progress towards a first ascent of Mount Prett Difficult. Molecular Microbiology, 2006, 61, 1-4.	1.2	16
194	Forced crumpling of self-avoiding elastic sheets. Nature Materials, 2006, 5, 216-221.	13.3	145
195	Structure of epsilon15 bacteriophage reveals genome organization and DNA packaging/injection apparatus. Nature, 2006, 439, 612-616.	13.7	280
196	Physics of RNA and viral assembly. European Physical Journal E, 2006, 19, 303-310.	0.7	39
197	The elastic properties of single double-stranded DNA chains of different lengths as measured with optical tweezers. Colloid and Polymer Science, 2006, 284, 1325-1331.	1.0	42
198	Pycnometric, viscometric and calorimetric studies of the process to release the double-stranded DNA from the Un bacteriophage. Biophysical Chemistry, 2006, 124, 43-51.	1.5	5
199	Fifty-three years since Hershey and Chase; much ado about pressure but which pressure is it?. Virology, 2006, 344, 221-229.	1.1	62
200	Conserved molecular systems of the Baculoviridae. Virology, 2006, 344, 77-87.	1.1	65
201	The effect of genome length on ejection forces in bacteriophage lambda. Virology, 2006, 348, 430-436.	1.1	115
202	Exploring mechanochemical processes in the cell with optical tweezers. Biology of the Cell, 2006, 98, 679-695.	0.7	64
203	Cryo-EM Asymmetric Reconstruction of Bacteriophage P22 Reveals Organization of its DNA Packaging and Infecting Machinery. Structure, 2006, 14, 1073-1082.	1.6	149
204	Affinity of molecular interactions in the bacteriophage ϕ 29 DNA packaging motor. Nucleic Acids Research, 2006, 34, 2698-2709.	6.5	40
205	A general method for manipulating DNA sequences from any organism with optical tweezers. Nucleic Acids Research, 2006, 34, e15-e15.	6.5	51

#	ARTICLE	IF	CITATIONS
206	Low-energy states of a semiflexible polymer chain with attraction and the whip-toroid transitions. Journal of Chemical Physics, 2006, 125, 074905.	1.2	4
207	Calibrating bead displacements in optical tweezers using acousto-optic deflectors. Review of Scientific Instruments, 2006, 77, 013704.	0.6	66
208	Functional Analysis of the Bacteriophage T4 DNA-packaging ATPase Motor. Journal of Biological Chemistry, 2006, 281, 518-527.	1.6	33
209	Protein Nanomechanics as Studied by AFM Single-Molecule Force Spectroscopy. , 2006, , 163-245.		25
210	DNA-mediated anisotropic mechanical reinforcement of a virus. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 13706-13711.	3.3	186
211	Herpes Simplex Virus Type 1 DNA-Packaging Protein UL17 Is Required for Efficient Binding of UL25 to Capsids. Journal of Virology, 2006, 80, 2118-2126.	1.5	63
212	Nanoindentation studies of full and empty viral capsids and the effects of capsid protein mutations on elasticity and strength. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 6184-6189.	3.3	276
213	Electrostatic origin of the genome packing in viruses. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 17174-17178.	3.3	219
214	Initiation of bacteriophage ϕ 29 DNA packaging studied by optical tweezers manipulation of single DNA molecules. , 2006, , .		2
215	A statistical approach to close packing of elastic rods and to DNA packaging in viral capsids. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 18900-18904.	3.3	63
216	Elasticity theory for self-assembled protein lattices with application to the martensitic phase transition in bacteriophage T4 tail sheath. Physical Review E, 2006, 73, 011917.	0.8	30
217	Torque Detection using Brownian Fluctuations. Physical Review Letters, 2006, 97, 210603.	2.9	94
218	Polymer Packaging and Ejection in Viral Capsids: Shape Matters. Physical Review Letters, 2006, 96, 208102.	2.9	112
219	Buckling transition in icosahedral shells subjected to volume conservation constraint and pressure: Relations to virus maturation. Physical Review E, 2006, 73, 061915.	0.8	61
220	Modulation of the Viral ATPase Activity by the Portal Protein Correlates with DNA Packaging Efficiency. Journal of Biological Chemistry, 2006, 281, 21914-21923.	1.6	31
221	Processive enzyme mimic: Kinetics and thermodynamics of the threading and sliding process. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 19647-19651.	3.3	68
222	Ionic effects on viral DNA packaging and portal motor function in bacteriophage ϕ 29. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 11245-11250.	3.3	135
223	Experimental Test of Connector Rotation during DNA Packaging into Bacteriophage ϕ 29 Capsids. PLoS Biology, 2007, 5, e59.	2.6	131

#	ARTICLE	IF	CITATIONS
224	Mechanical limits of viral capsids. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 9925-9930.	3.3	49
225	Single phage T4 DNA packaging motors exhibit large force generation, high velocity, and dynamic variability. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 16868-16873.	3.3	175
226	Dynamic and static light scattering analysis of DNA ejection from the phage ϕ . Physical Review E, 2007, 76, 011914.	0.8	18
227	The Phage ϕ 29 Membrane Protein p16.7, Involved in DNA Replication, Is Required for Efficient Ejection of the Viral Genome. Journal of Bacteriology, 2007, 189, 5542-5549.	1.0	12
228	Use of plasmon coupling to reveal the dynamics of DNA bending and cleavage by single EcoRV restriction enzymes. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 2667-2672.	3.3	268
229	A Putative Leucine Zipper within the Herpes Simplex Virus Type 1 UL6 Protein Is Required for Portal Ring Formation. Journal of Virology, 2007, 81, 8868-8877.	1.5	21
230	Internal DNA pressure modifies stability of WT phage. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 9603-9608.	3.3	138
231	Real-time observations of single bacteriophage ϕ DNA ejections <i>in vitro</i> . Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 14652-14657.	3.3	114
232	Stuffing a virus with DNA: Dissecting viral genome packaging. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 11125-11126.	3.3	22
233	Identification of Acetylated, Tetrahalogenated Benzimidazole d-Ribonucleosides with Enhanced Activity against Human Cytomegalovirus. Journal of Virology, 2007, 81, 11604-11611.	1.5	30
234	<title>How to use laser radiative and evanescent interference fields to control movement of the sub-micron objects</title>. , 2007, , .		0
235	High-resolution single-molecule optical trapping measurements of transcription with basepair accuracy: instrumentation and methods. , 2007, , .		1
236	Studies of viral DNA packaging motors with optical tweezers: a comparison of motor function in bacteriophages ϕ 29, λ , and T4. Proceedings of SPIE, 2007, , .	0.8	0
237	Biophysics of viral infectivity: matching genome length with capsid size. Quarterly Reviews of Biophysics, 2007, 40, 327-356.	2.4	42
238	Molecular Motors: A Theorist's Perspective. Annual Review of Physical Chemistry, 2007, 58, 675-695.	4.8	503
239	The gpQ portal protein of bacteriophage P2 forms dodecameric connectors in crystals. Journal of Structural Biology, 2007, 157, 432-436.	1.3	18
240	Macromolecular mass spectrometry and electron microscopy as complementary tools for investigation of the heterogeneity of bacteriophage portal assemblies. Journal of Structural Biology, 2007, 157, 371-383.	1.3	47
241	The conformation of double-stranded DNA inside bacteriophages depends on capsid size and shape. Journal of Structural Biology, 2007, 160, 241-248.	1.3	76

#	ARTICLE	IF	CITATIONS
242	Forces Controlling the Rate of DNA Ejection from Phage ϕ . Journal of Molecular Biology, 2007, 368, 55-65.	2.0	49
243	An ATP Hydrolysis Sensor in the DNA Packaging Motor from Bacteriophage T4 Suggests an Inchworm-Type Translocation Mechanism. Journal of Molecular Biology, 2007, 369, 79-94.	2.0	48
244	Alanine Scanning and Fe-BABE Probing of the Bacteriophage ϕ 29 Prohead RNA-Connector Interaction. Journal of Molecular Biology, 2007, 369, 239-248.	2.0	21
245	Assembly of the Small Outer Capsid Protein, Soc, on Bacteriophage T4: A Novel System for High Density Display of Multiple Large Anthrax Toxins and Foreign Proteins on Phage Capsid. Journal of Molecular Biology, 2007, 370, 1006-1019.	2.0	52
246	Measurements of Single DNA Molecule Packaging Dynamics in Bacteriophage ϕ Reveal High Forces, High Motor Processivity, and Capsid Transformations. Journal of Molecular Biology, 2007, 373, 1113-1122.	2.0	155
247	Pressure Built by DNA Packing Inside Virions: Enough to Drive DNA Ejection in Vitro, Largely Insufficient for Delivery into the Bacterial Cytoplasm. Journal of Molecular Biology, 2007, 374, 346-355.	2.0	70
248	Is phage DNA "injected" into cells? biologists and physicists can agree. Current Opinion in Microbiology, 2007, 10, 401-409.	2.3	63
249	Mechanism of DNA Transport Through Pores. Annual Review of Biophysics and Biomolecular Structure, 2007, 36, 435-450.	18.3	133
250	Role of Gene 10 Protein in the Hierarchical Assembly of the Bacteriophage P22 Portal Vertex Structure. Biochemistry, 2007, 46, 8776-8784.	1.2	36
251	Backscattering position detection for photonic force microscopy. Journal of Applied Physics, 2007, 102, 084701.	1.1	42
252	Binding of Intercalating and Groove-Binding Cyanine Dyes to Bacteriophage T5. Journal of Physical Chemistry B, 2007, 111, 1139-1148.	1.2	23
253	High-Resolution, Single-Molecule Measurements of Biomolecular Motion. Annual Review of Biophysics and Biomolecular Structure, 2007, 36, 171-190.	18.3	425
254	DNA Organization and Thermodynamics during Viral Packing. Biophysical Journal, 2007, 93, 2861-2869.	0.2	51
255	Step Length Measurement Theory and Simulation for Tethered Bead Constant-Force Single Molecule Assay. Biophysical Journal, 2007, 93, 795-805.	0.2	10
256	A Kinetic Analysis of DNA Ejection from Tailed Phages Revealing the Prerequisite Activation Energy. Biophysical Journal, 2007, 93, 3999-4005.	0.2	29
257	Viral DNA Packaging Studied by Fluorescence Correlation Spectroscopy. Biophysical Journal, 2007, 93, L17-L19.	0.2	48
258	Elasticity of Short DNA Molecules: Theory and Experiment for Contour Lengths of 0.6×10^4 nm. Biophysical Journal, 2007, 93, 4360-4373.	0.2	122
259	Armor: Why, When, and How. , 2007, , 311-332.		53

#	ARTICLE	IF	CITATIONS
260	Biological consequences of tightly bent DNA: The other life of a macromolecular celebrity. Biopolymers, 2007, 85, 115-130.	1.2	158
261	Nanofluidic structures for single biomolecule fluorescent detection. Biopolymers, 2007, 85, 131-143.	1.2	69
262	Enhanced preparation of adeno-associated viral vectors by using high hydrostatic pressure to selectively inactivate helper adenovirus. Biotechnology and Bioengineering, 2007, 97, 1170-1179.	1.7	15
263	Using Molecular Force to Overcome Steric Barriers in a Springlike Molecular Ouroboros**. Advanced Functional Materials, 2007, 17, 751-762.	7.8	39
264	Stochastic Detection of Motor Protein-RNA Complexes by Single-Channel Current Recording. ChemPhysChem, 2007, 8, 2189-2194.	1.0	34
265	Counting of six pRNAs of phi29 DNA-packaging motor with customized single-molecule dual-view system. EMBO Journal, 2007, 26, 527-537.	3.5	166
266	Structural framework for DNA translocation via the viral portal protein. EMBO Journal, 2007, 26, 1984-1994.	3.5	207
267	Viral nanomotors for packaging of dsDNA and dsRNA. Molecular Microbiology, 2007, 64, 886-903.	1.2	82
268	Single-molecule studies of nucleic acid motors. Current Opinion in Structural Biology, 2007, 17, 80-86.	2.6	57
269	DNA packaging and delivery machines in tailed bacteriophages. Current Opinion in Structural Biology, 2007, 17, 237-243.	2.6	107
270	Structural and Thermodynamic Principles of Viral Packaging. Structure, 2007, 15, 21-27.	1.6	88
271	Packaging of DNA by Bacteriophage Epsilon15: Structure, Forces, and Thermodynamics. Structure, 2007, 15, 807-812.	1.6	52
272	Brownian motion in a nonhomogeneous force field and photonic force microscope. Physical Review E, 2007, 76, 061118.	0.8	64
273	DNA ejection from bacteriophage: Towards a general behavior for osmotic-suppression experiments. European Physical Journal E, 2007, 24, 9-18.	0.7	28
274	Viral capsids: Mechanical characteristics, genome packaging and delivery mechanisms. Cellular and Molecular Life Sciences, 2007, 64, 1484-1497.	2.4	164
275	Mechanical properties of icosahedral virus capsids. Journal of Computer-Aided Materials Design, 2007, 14, 111-119.	0.7	2
276	Mechanical modeling of viral capsids. Journal of Materials Science, 2007, 42, 8995-9004.	1.7	25
277	Mechanochemistry. Resonance, 2007, 12, 48-59.	0.2	1

#	ARTICLE	IF	CITATIONS
278	Forceâ€“Velocity Curves of Motor Proteins Cooperating InÂVivo. Cell Biochemistry and Biophysics, 2008, 52, 19-29.	0.9	43
279	Molekulare Motoren und künstliche Nanomaschinen. Energiewandlung in Polymeren. Physik in Unserer Zeit, 2008, 39, 14-20.	0.0	1
280	Insights into virus capsid assembly from nonâ€“covalent mass spectrometry. Mass Spectrometry Reviews, 2008, 27, 575-595.	2.8	47
281	From Biological towards Artificial Molecular Motors. ChemPhysChem, 2008, 9, 1503-1509.	1.0	36
282	Packing nanomechanics of viral genomes. European Physical Journal E, 2008, 26, 317-25.	0.7	21
283	Do-it-yourself guide: how to use the modern single-molecule toolkit. Nature Methods, 2008, 5, 475-489.	9.0	303
284	Single-molecule force spectroscopy: optical tweezers, magnetic tweezers and atomic force microscopy. Nature Methods, 2008, 5, 491-505.	9.0	2,008
285	Three-dimensional architecture of the bacteriophage Î¶29 packaged genome and elucidation of its packaging process. Virology, 2008, 371, 267-277.	1.1	82
286	Strand and nucleotide-dependent ATPase activity of gp16 of bacterial virus phi29 DNA packaging motor. Virology, 2008, 380, 69-74.	1.1	24
287	DNA Poised for Release in Bacteriophage Î¶29. Structure, 2008, 16, 935-943.	1.6	98
288	Defining Molecular and Domain Boundaries in the Bacteriophage Î¶29 DNA Packaging Motor. Structure, 2008, 16, 1267-1274.	1.6	96
289	Bacteriophage Lambda Stabilization by Auxiliary Protein gpD: Timing, Location, and Mechanism of Attachment Determined by Cryo-EM. Structure, 2008, 16, 1399-1406.	1.6	150
290	Send for Reinforcements! Conserved Binding of Capsid Decoration Proteins. Structure, 2008, 16, 1292-1293.	1.6	10
291	Portal Motor Velocity and Internal Force Resisting Viral DNA Packaging in Bacteriophage Î¶29. Biophysical Journal, 2008, 94, 159-167.	0.2	122
292	Ejection Dynamics of Polymeric Chains from Viral Capsids: Effect of Solvent Quality. Biophysical Journal, 2008, 94, 4159-4164.	0.2	40
293	Osmotic Pressure and Packaging Structure of Caged DNA. Biophysical Journal, 2008, 94, 737-746.	0.2	34
294	Packaging of a Polymer by a Viral Capsid: The Interplay between Polymer Length and Capsid Size. Biophysical Journal, 2008, 94, 1428-1436.	0.2	192
295	T7 RNA Polymerase Studied by Force Measurements Varying Cofactor Concentration. Biophysical Journal, 2008, 95, 2423-2433.	0.2	49

#	ARTICLE	IF	CITATIONS
296	The Role of DNA Twist in the Packaging of Viral Genomes. <i>Biophysical Journal</i> , 2008, 94, L38-L40.	0.2	29
297	Packaging Double-Helical DNA into Viral Capsids: Structures, Forces, and Energetics. <i>Biophysical Journal</i> , 2008, 95, 497-502.	0.2	105
298	The Bacteriophage DNA Packaging Motor. <i>Annual Review of Genetics</i> , 2008, 42, 647-681.	3.2	338
299	Single-molecule biophysics: at the interface of biology, physics and chemistry. <i>Journal of the Royal Society Interface</i> , 2008, 5, 15-45.	1.5	263
300	Exact Solutions for Kinetic Models of Macromolecular Dynamics. <i>Journal of Physical Chemistry B</i> , 2008, 112, 6025-6044.	1.2	81
301	Femtonewton Force Sensing with Optically Trapped Nanotubes. <i>Nano Letters</i> , 2008, 8, 3211-3216.	4.5	118
302	The importance of surfaces in single-molecule bioscience. <i>Molecular BioSystems</i> , 2008, 4, 394.	2.9	43
303	Determination of Stoichiometry and Conformational Changes in the First Step of the P22 Tail Assembly. <i>Journal of Molecular Biology</i> , 2008, 379, 385-396.	2.0	68
304	DNA Packaging Motor Assembly Intermediate of Bacteriophage ϕ 29. <i>Journal of Molecular Biology</i> , 2008, 381, 1114-1132.	2.0	38
305	Osmotic Pressure: Resisting or Promoting DNA Ejection from Phage?. <i>Journal of Molecular Biology</i> , 2008, 381, 310-323.	2.0	31
306	REDOR NMR Characterization of DNA Packaging in Bacteriophage T4. <i>Journal of Molecular Biology</i> , 2008, 382, 1031-1042.	2.0	45
307	Role of the CCA Bulge of Prohead RNA of Bacteriophage ϕ 29 in DNA Packaging. <i>Journal of Molecular Biology</i> , 2008, 383, 520-528.	2.0	32
308	Bacteriophage T5 DNA Ejection under Pressure. <i>Journal of Molecular Biology</i> , 2008, 384, 730-739.	2.0	43
309	Modular assembly of chimeric ϕ 29 packaging RNAs that support DNA packaging. <i>Biochemical and Biophysical Research Communications</i> , 2008, 372, 589-594.	1.0	13
310	Characterization of a novel portal protein from deep-sea thermophilic bacteriophage GVE2. <i>Gene</i> , 2008, 421, 61-66.	1.0	13
311	The Structure of the Phage T4 DNA Packaging Motor Suggests a Mechanism Dependent on Electrostatic Forces. <i>Cell</i> , 2008, 135, 1251-1262.	13.5	226
312	A Good Catch: Packaging the Virus Genome. <i>Cell Host and Microbe</i> , 2008, 3, 120-122.	5.1	4
313	A New Antituberculosis Drug that Selectively Kills Nonmultiplying <i>Mycobacterium tuberculosis</i> . <i>Cell Host and Microbe</i> , 2008, 3, 122-124.	5.1	5

#	ARTICLE	IF	CITATIONS
314	Recent Advances in Optical Tweezers. Annual Review of Biochemistry, 2008, 77, 205-228.	5.0	995
315	Self-assembly approaches to nanomaterial encapsulation in viral protein cages. Journal of Materials Chemistry, 2008, 18, 3763.	6.7	106
316	Viruses as supramolecular self-assemblies: modelling of capsid formation and genome packaging. Soft Matter, 2008, 4, 1981.	1.2	39
317	DNA Knotting in Spooling Like Conformations in Bacteriophages. Computational and Mathematical Methods in Medicine, 2008, 9, 303-316.	0.7	20
318	RNA Packaging Motor: From Structure to Quantum Mechanical Modelling and Sequential-Stochastic Mechanism. Computational and Mathematical Methods in Medicine, 2008, 9, 351-369.	0.7	4
319	Exceptional mechanical and structural stability of HSV-1 unveiled with fluid atomic force microscopy. Journal of Cell Science, 2008, 121, 2287-2292.	1.2	44
320	Computer Simulations of DNA Packing inside Bacteriophages: Elasticity, Electrostatics and Entropy. Computational and Mathematical Methods in Medicine, 2008, 9, 317-325.	0.7	14
321	Mechanism of a viral DNA packaging motor studied by characterization of biochemical mutants via optical tweezers measurements. , 2008, , .		0
322	Manipulation of the mechanical properties of a virus by protein engineering. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 4150-4155.	3.3	103
323	Laser beam interference and its applications in optical micromanipulation. Proceedings of SPIE, 2008, , .	0.8	0
324	The Leeuwenhoek lecture 2006. Microscopy goes cold: frozen viruses reveal their structural secrets. Philosophical Transactions of the Royal Society B: Biological Sciences, 2008, 363, 2441-2451.	1.8	12
325	Polymer translocation out of planar confinements. Journal of Physics Condensed Matter, 2008, 20, 075101.	0.7	45
326	Elastic properties and mechanical stability of chiral and filled viral capsids. Physical Review E, 2008, 78, 051924.	0.8	33
327	Bright-field analysis of phi29 DNA packaging motor using a magnetomechanical system. Applied Physics Letters, 2008, 93, 153902.	1.5	24
328	How rigid are viruses. Physical Review E, 2008, 78, 021907.	0.8	24
329	Mechanical properties of an adsorbed elastic polymer in contact with a rigid membrane. Physical Review E, 2008, 78, 051802.	0.8	8
330	Two Rotary Motors of ATP Synthase. , 0, , 237-255.		0
331	The physics of phages. Physics Today, 2008, 61, 42-47.	0.3	27

#	ARTICLE	IF	CITATIONS
334	Response of single polymers to localized step strains. Physical Review E, 2009, 79, 011803.	0.8	7
335	Knot-Controlled Ejection of a Polymer from a Virus Capsid. Physical Review Letters, 2009, 102, 088101.	2.9	72
336	Characterization of DNA conformation inside bacterial viruses. Physical Review E, 2009, 80, 021914.	0.8	14
337	The Q motif of a viral packaging motor governs its force generation and communicates ATP recognition to DNA interaction. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 14355-14360.	3.3	45
338	The Small Terminase, gp16, of Bacteriophage T4 Is a Regulator of the DNA Packaging Motor. Journal of Biological Chemistry, 2009, 284, 24490-24500.	1.6	46
339	Pressurized Viruses. Science, 2009, 323, 1682-1683.	6.0	89
340	The capillarity of nanometric water menisci confined inside closed-geometry viral cages. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 5475-5480.	3.3	28
341	A virus DNA gate: Zipping and unzipping the packed viral genome. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 8403-8404.	3.3	3
342	Modelling of a DNA packaging motor. Chinese Physics B, 2009, 18, 4852-4864.	0.7	4
343	Dynamics of chemically powered nanodimer motors subject to an external force. Journal of Chemical Physics, 2009, 131, 024113.	1.2	33
344	Electrostatics of capsid-induced viral RNA organization. Journal of Chemical Physics, 2009, 131, .	1.2	43
345	Experimental and Computational Characterization of Biological Liquid Crystals: A Review of Single-Molecule Bioassays. International Journal of Molecular Sciences, 2009, 10, 4009-4032.	1.8	15
346	DNA–DNA interactions in bacteriophage capsids are responsible for the observed DNA knotting. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 22269-22274.	3.3	173
347	Mutational Analysis of a Conserved Glutamic Acid Required for Self-Catalyzed Cross-Linking of Bacteriophage HK97 Capsids. Journal of Virology, 2009, 83, 2088-2098.	1.5	18
348	Structure of bacteriophage SPP1 head-to-tail connection reveals mechanism for viral DNA gating. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 8507-8512.	3.3	107
349	In vitro incorporation of the phage Phi29 connector complex. Virology, 2009, 394, 149-153.	1.1	37
350	The structural dynamics of macromolecular processes. Current Opinion in Cell Biology, 2009, 21, 97-108.	2.6	74
351	Nanoindentation Studies Reveal Material Properties of Viruses. Advanced Materials, 2009, 21, 1187-1192.	11.1	70

#	ARTICLE	IF	CITATIONS
352	Optical traps for single molecule biophysics: a primer. <i>Laser and Photonics Reviews</i> , 2009, 3, 203-220.	4.4	115
353	Construction of Bacteriophage Phi29 DNA Packaging Motor and its Applications in Nanotechnology and Therapy. <i>Annals of Biomedical Engineering</i> , 2009, 37, 2064-2081.	1.3	43
354	Capture and alignment of phi29 viral particles in sub-40 nanometer porous alumina membranes. <i>Biomedical Microdevices</i> , 2009, 11, 135-142.	1.4	36
355	Mechanical Design of Translocating Motor Proteins. <i>Cell Biochemistry and Biophysics</i> , 2009, 54, 11-22.	0.9	36
356	Engineering of the Fluorescentâ€Energyâ€Conversion Arm of Phi29 DNA Packaging Motor for Singleâ€Molecule Studies. <i>Small</i> , 2009, 5, 2453-2459.	5.2	12
357	Intersubunit coordination in a homomeric ring ATPase. <i>Nature</i> , 2009, 457, 446-450.	13.7	266
358	An unexpected twist in viral capsid maturation. <i>Nature</i> , 2009, 458, 646-650.	13.7	120
359	Substrate interactions and promiscuity in a viral DNA packaging motor. <i>Nature</i> , 2009, 461, 669-673.	13.7	107
360	Concealed enzyme coordination. <i>Nature</i> , 2009, 457, 392-393.	13.7	4
361	Transportin Mediates Nuclear Entry of DNA in Vertebrate Systems. <i>Traffic</i> , 2009, 10, 1414-1428.	1.3	27
362	DNA based molecular motors. <i>Physics of Life Reviews</i> , 2009, 6, 250-266.	1.5	17
363	Shepherd model for knot-limited polymer ejection from a capsid. <i>Journal of Theoretical Biology</i> , 2009, 261, 488-493.	0.8	6
364	Of torques, forces, and protein machines. <i>Protein Science</i> , 2009, 13, 3061-3065.	3.1	15
365	Fabrication of Massive Sheets of Single Layer Patterned Arrays Using Lipid Directed Reengineered Phi29 Motor Dodecamer. <i>ACS Nano</i> , 2009, 3, 100-107.	7.3	20
366	Conformational Mechanics of Polymer Adsorption Transitions at Attractive Substrates. <i>Journal of Physical Chemistry B</i> , 2009, 113, 3314-3323.	1.2	42
367	Kinetic Analysis of the Genome Packaging Reaction in Bacteriophage Î». <i>Biochemistry</i> , 2009, 48, 10705-10715.	1.2	25
368	RNA folding dynamics by single-molecule fluorescence resonance energy transfer. <i>Methods</i> , 2009, 49, 112-117.	1.9	88
369	Purified Membrane-Containing Procapsids of Bacteriophage PRD1 Package the Viral Genome. <i>Journal of Molecular Biology</i> , 2009, 386, 637-647.	2.0	19

#	ARTICLE	IF	CITATIONS
370	Shared Catalysis in Virus Entry and Bacterial Cell Wall Depolymerization. Journal of Molecular Biology, 2009, 387, 607-618.	2.0	28
371	Periodic Forces Trigger a Complex Mechanical Response in Ubiquitin. Journal of Molecular Biology, 2009, 390, 443-456.	2.0	11
372	Structure and Energetics of Encapsidated DNA in Bacteriophage HK97 Studied by Scanning Calorimetry and Cryo-electron Microscopy. Journal of Molecular Biology, 2009, 391, 471-483.	2.0	52
373	Highly birefringent vaterite microspheres: production, characterization and applications for optical micromanipulation. Optics Express, 2009, 17, 21944.	1.7	74
374	Mechanical Properties of the Icosahedral Shell of Southern Bean Mosaic Virus: A Molecular Dynamics Study. Biophysical Journal, 2009, 96, 1350-1363.	0.2	117
375	Energy Landscape for DNA Rotation and Sliding through a Phage Portal. Biophysical Journal, 2009, 96, L29-L31.	0.2	6
376	Stretching Submicron Biomolecules with Constant-Force Axial Optical Tweezers. Biophysical Journal, 2009, 96, 4701-4708.	0.2	47
377	Formation of DNA toroids inside confined droplets adsorbed on mica surfaces. Physical Review E, 2009, 79, 051912.	0.8	3
378	Integrating a High-Force Optical Trap with Gold Nanoposts and a Robust Gold~DNA Bond. Nano Letters, 2009, 9, 2978-2983.	4.5	16
379	Packaging of a Polyelectrolyte into a Neutral Spherical Cavity. Macromolecules, 2009, 42, 4874-4877.	2.2	5
380	Physical Chemistry of DNA Viruses. Annual Review of Physical Chemistry, 2009, 60, 367-383.	4.8	78
381	Handbook of Single-Molecule Biophysics. , 2009, , .		70
382	Quantum limited particle sensing in optical tweezers. Physical Review A, 2009, 80, .	1.0	19
383	Nanopore analytics: sensing of single molecules. Chemical Society Reviews, 2009, 38, 2360.	18.7	1,035
384	The Force Acting on a Polymer Partially Confined in a Tube. Journal of Physical Chemistry B, 2009, 113, 3873-3879.	1.2	13
385	Viral assembly: a molecular modeling perspective. Physical Chemistry Chemical Physics, 2009, 11, 10553.	1.3	40
386	DNA Heats Up: Energetics of Genome Ejection from Phage Revealed by Isothermal Titration Calorimetry. Biophysical Journal, 2009, 96, 209a.	0.2	0
387	Statistics of confined polymers and the melting of a DNA spool. Europhysics Letters, 2009, 85, 38005.	0.7	8

#	ARTICLE	IF	CITATIONS
388	Human cytomegalovirus packaging: an update on structure–function relationships. <i>Future Virology</i> , 2010, 5, 397-404.	0.9	6
389	Mind the Gap: How Some Viruses Infect Their Hosts. <i>Viruses</i> , 2010, 2, 2536-2540.	1.5	1
390	Construction of a laser combiner for dual fluorescent single molecule imaging of pRNA of phi29 DNA packaging motor. <i>Biomedical Microdevices</i> , 2010, 12, 97-106.	1.4	8
391	DNA crunching by a viral packaging motor: Compression of a procapsid-portal stalled Y-DNA substrate. <i>Virology</i> , 2010, 398, 224-232.	1.1	55
392	Gp15 and gp16 cooperate in translocating bacteriophage T7 DNA into the infected cell. <i>Virology</i> , 2010, 398, 176-186.	1.1	55
393	Conformational Properties of Polymer Mushrooms Under Spherical and Cylindrical Confinement. <i>Macromolecular Theory and Simulations</i> , 2010, 19, 258-268.	0.6	10
394	Physical virology. <i>Nature Physics</i> , 2010, 6, 733-743.	6.5	311
395	Critical Salt Bridges Guide Capsid Assembly, Stability, and Maturation Behavior in Bacteriophage HK97. <i>Molecular and Cellular Proteomics</i> , 2010, 9, 1752-1763.	2.5	30
396	Holographic optical manipulation of motor-driven membranous structures in living NG-108 cells. <i>Optical Engineering</i> , 2010, 49, 085801.	0.5	2
397	VERSATILE DNA-PACKAGING NANOMOTOR OF BACTERIOPHAGE phi29 WITH APPLICATIONS IN NANOBIO TECHNOLOGY. <i>Nano LIFE</i> , 2010, 01, 45-62.	0.6	2
398	Dynamics of bacteriophage genome ejection <i>in vitro</i> and <i>in vivo</i> . <i>Physical Biology</i> , 2010, 7, 045006.	0.8	31
399	Direct Interaction of the Bacteriophage SPP1 Packaging ATPase with the Portal Protein. <i>Journal of Biological Chemistry</i> , 2010, 285, 7366-7373.	1.6	31
400	Mutations Altering a Structurally Conserved Loop-Helix-Loop Region of a Viral Packaging Motor Change DNA Translocation Velocity and Processivity. <i>Journal of Biological Chemistry</i> , 2010, 285, 24282-24289.	1.6	29
401	A Docking Model Based on Mass Spectrometric and Biochemical Data Describes Phage Packaging Motor Incorporation. <i>Molecular and Cellular Proteomics</i> , 2010, 9, 1764-1773.	2.5	31
402	Composite system mediates two-step DNA uptake into <i>Helicobacter pylori</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 1184-1189.	3.3	111
403	A Hypothesis for Bacteriophage DNA Packaging Motors. <i>Viruses</i> , 2010, 2, 1821-1843.	1.5	25
404	Atomistic to Continuum Modeling of DNA Molecules. , 2010, , .		1
405	Polymer translocation into laterally unbounded confined environments. <i>Journal of Chemical Physics</i> , 2010, 133, 075101.	1.2	17

#	ARTICLE	IF	CITATIONS
406	Barrier crossing in one and three dimensions by a long chain. Journal of Statistical Mechanics: Theory and Experiment, 2010, 2010, P11024.	0.9	4
407	Icosahedral formation of nano-micro capsules: An energetic viewpoint. Europhysics Letters, 2010, 92, 68004.	0.7	4
408	Ejection of a Polymer Chain from a Nanopore: Theory and Computer Experiment. Macromolecules, 2010, 43, 6877-6885.	2.2	34
409	A systematically coarse-grained model for DNA and its predictions for persistence length, stacking, twist, and chirality. Journal of Chemical Physics, 2010, 132, 035105.	1.2	108
410	Primary Changes of the Mechanical Properties of Southern Bean Mosaic Virus upon Calcium Removal. Biophysical Journal, 2010, 98, 687-695.	0.2	25
411	Is the In Vitro Ejection of Bacteriophage DNA Quasistatic? A Bulk to Single Virus Study. Biophysical Journal, 2010, 99, 447-455.	0.2	36
412	Ion-Dependent Dynamics of DNA Ejections for Bacteriophage ϕ . Biophysical Journal, 2010, 99, 1101-1109.	0.2	31
413	Light forces the pace: optical manipulation for biophotonics. Journal of Biomedical Optics, 2010, 15, 041503.	1.4	110
414	Confined nematic polymers: Order and packing in a nematic drop. Physical Review E, 2010, 82, 011708.	0.8	19
415	Peptide Nucleic Acids as Tools for Single-Molecule Sequence Detection and Manipulation. Nano Letters, 2010, 10, 4697-4701.	4.5	24
416	Polymer translocation into a fluidic channel through a nanopore. Physical Review E, 2010, 82, 021922.	0.8	42
417	Translocation time of periodically forced polymer chains. Physical Review E, 2010, 82, 031803.	0.8	21
418	One-Way Traffic of a Viral Motor Channel for Double-Stranded DNA Translocation. Nano Letters, 2010, 10, 3620-3627.	4.5	77
419	Assembly Mechanism of the Sixty-Subunit Nanoparticles via Interaction of RNA with the Reengineered Protein Connector of phi29 DNA-Packaging Motor. ACS Nano, 2010, 4, 3293-3301.	7.3	19
420	Methods in Modern Biophysics. , 2010, , .		3
421	A force detection technique for single-beam optical traps based on direct measurement of light momentum changes. Optics Express, 2010, 18, 11955.	1.7	64
422	Uncoupling of Sister Replisomes during Eukaryotic DNA Replication. Molecular Cell, 2010, 40, 834-840.	4.5	126
423	Structure of the Small Outer Capsid Protein, Soc: A Clamp for Stabilizing Capsids of T4-like Phages. Journal of Molecular Biology, 2010, 395, 728-741.	2.0	81

#	ARTICLE	IF	CITATIONS
424	The Bacteriophage Genome Undergoes a Succession of Intracapsid Phase Transitions upon DNA Ejection. <i>Journal of Molecular Biology</i> , 2010, 396, 384-395.	2.0	77
425	Single-Molecule and FRET Fluorescence Correlation Spectroscopy Analyses of Phage DNA Packaging: Colocalization of Packaged Phage T4 DNA Ends within the Capsid. <i>Journal of Molecular Biology</i> , 2010, 395, 1102-1113.	2.0	43
426	DNA Heats Up: Energetics of Genome Ejection from Phage Revealed by Isothermal Titration Calorimetry. <i>Journal of Molecular Biology</i> , 2010, 395, 1079-1087.	2.0	25
427	DNA Packaging-Associated Hyper-Capsid Expansion of Bacteriophage T3. <i>Journal of Molecular Biology</i> , 2010, 397, 361-374.	2.0	17
428	Mechanochemistry of a Viral DNA Packaging Motor. <i>Journal of Molecular Biology</i> , 2010, 400, 186-203.	2.0	78
429	Assembly and Maturation of the Bacteriophage Lambda Procapsid: gpC Is the Viral Protease. <i>Journal of Molecular Biology</i> , 2010, 401, 813-830.	2.0	37
430	Imaging and manipulation of single viruses by atomic force microscopy. <i>Soft Matter</i> , 2010, 6, 5273.	1.2	67
431	One-dimensional coordination polymers on surfaces: towards single molecule devices. <i>Chemical Society Reviews</i> , 2010, 39, 4220.	18.7	124
432	Sopâ€GPU: Accelerating biomolecular simulations in the centisecond timescale using graphics processors. <i>Proteins: Structure, Function and Bioinformatics</i> , 2010, 78, 2984-2999.	1.5	58
433	Genome packaging in viruses. <i>Current Opinion in Structural Biology</i> , 2010, 20, 114-120.	2.6	124
434	Atomic Force Microscopy Studies of Human Rhinovirus. <i>Methods in Enzymology</i> , 2010, 475, 515-539.	0.4	4
436	Complex Fluids: Probing Mechanical Properties of Biological Systems with Optical Tweezers. <i>Annual Review of Physical Chemistry</i> , 2010, 61, 421-440.	4.8	48
437	Revealing the base pair stepping dynamics of nucleic acid motor proteins with optical traps. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 3080.	1.3	22
439	Robust properties of membrane-embedded connector channel of bacterial virus phi29 DNA packaging motor. <i>Molecular BioSystems</i> , 2010, 6, 1844.	2.9	39
440	Biopolymer organization upon confinement. <i>Journal of Physics Condensed Matter</i> , 2010, 22, 283102.	0.7	79
441	Mechanochemistry of F1 motor protein. <i>Chemical Science</i> , 2011, 2, 2086.	3.7	10
442	Off-equilibrium response of grafted polymer chains subject to a variable rate of compression. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 11757.	1.3	3
443	Osmotically induced deformation of capsid-like icosahedral vesicles. <i>Soft Matter</i> , 2011, 7, 1084-1089.	1.2	25

#	ARTICLE	IF	CITATIONS
444	Packaging of granular bead chain. Europhysics Letters, 2011, 96, 44005.	0.7	11
445	Built-In Mechanical Stress in Viral Shells. Biophysical Journal, 2011, 100, 1100-1108.	0.2	75
446	Viral Capsid Equilibrium Dynamics Reveals Nonuniform Elastic Properties. Biophysical Journal, 2011, 100, L59-L61.	0.2	33
447	Single-molecule studies of viral DNA packaging. Current Opinion in Virology, 2011, 1, 134-141.	2.6	57
448	Inhibition of DNA ejection from bacteriophage by Mg+2 counterions. Journal of Chemical Physics, 2011, 134, 125104.	1.2	8
449	A coarse-grain three-site-per-nucleotide model for DNA with explicit ions. Journal of Chemical Physics, 2011, 135, 165104.	1.2	54
450	Single-Molecule and Nanoscale Approaches to Biological Signaling. , 2011, , 287-323.		0
451	The DNA-packaging nanomotor of tailed bacteriophages. Nature Reviews Microbiology, 2011, 9, 647-657.	13.6	211
452	Revisiting the Central Dogma One Molecule at a Time. Cell, 2011, 144, 480-497.	13.5	164
453	Single-Molecule Protein Unfolding and Translocation by an ATP-Fueled Proteolytic Machine. Cell, 2011, 145, 257-267.	13.5	251
454	ClpX(P) Generates Mechanical Force to Unfold and Translocate Its Protein Substrates. Cell, 2011, 145, 459-469.	13.5	256
455	Radiation force of highly focused Lorentz-Gauss beams on a Rayleigh particle. Optics Express, 2011, 19, 9708.	1.7	57
456	Bacteriophage-host interactions leading to genome internalization. Current Opinion in Microbiology, 2011, 14, 492-496.	2.3	29
457	Role of DNA-DNA interactions on the structure and thermodynamics of bacteriophages Lambda and P4. Journal of Structural Biology, 2011, 174, 137-146.	1.3	25
458	In vivo virus structures: Simultaneous classification, resolution enhancement, and noise reduction in whole-cell electron tomography. Journal of Structural Biology, 2011, 174, 425-433.	1.3	6
459	Effects of Salts on Internal DNA Pressure and Mechanical Properties of Phage Capsids. Journal of Molecular Biology, 2011, 405, 18-23.	2.0	45
460	The Prohead-I Structure of Bacteriophage HK97: Implications for Scaffold-Mediated Control of Particle Assembly and Maturation. Journal of Molecular Biology, 2011, 408, 541-554.	2.0	58
461	Herpes simplex virus capsid assembly and DNA packaging: a present and future antiviral drug target. Trends in Microbiology, 2011, 19, 606-613.	3.5	77

#	ARTICLE	IF	CITATIONS
462	Keep It Flexible: Driving Macromolecular Rotary Motions in Atomistic Simulations with GROMACS. Journal of Chemical Theory and Computation, 2011, 7, 1381-1393.	2.3	42
463	Electrostatic interactions in biological DNA-related systems. Physical Chemistry Chemical Physics, 2011, 13, 9942.	1.3	141
464	Equalities and Inequalities: Irreversibility and the Second Law of Thermodynamics at the Nanoscale. Annual Review of Condensed Matter Physics, 2011, 2, 329-351.	5.2	790
465	Two steps away from novelty “ principles of bacterial DNA uptake. Molecular Microbiology, 2011, 80, 860-867.	1.2	94
466	Optical tweezers study life under tension. Nature Photonics, 2011, 5, 318-321.	15.6	354
467	The host outer membrane proteins OmpA and OmpC are associated with the Shigella phage Sf6 virion. Virology, 2011, 409, 319-327.	1.1	12
468	Three reversible and controllable discrete steps of channel gating of a viral DNA packaging motor. Biomaterials, 2011, 32, 8234-8242.	5.7	52
469	Nuclear delivery mechanism of herpes simplex virus type 1 genome. Journal of Molecular Recognition, 2011, 24, 414-421.	1.1	46
470	Forcing a connection: Impacts of single-molecule force spectroscopy on in vivo tension sensing. Biopolymers, 2011, 95, 332-344.	1.2	26
471	Translocation of a polymer chain driven by a dichotomous noise. Journal of Statistical Mechanics: Theory and Experiment, 2011, 2011, P11002.	0.9	12
472	Underwound DNA under Tension: Structure, Elasticity, and Sequence-Dependent Behaviors. Physical Review Letters, 2011, 107, 108102.	2.9	92
473	Determination of Viral Capsid Elastic Properties from Equilibrium Thermal Fluctuations. Physical Review Letters, 2011, 106, 188101.	2.9	43
474	Salt-Dependent DNA-DNA Spacings in Intact Bacteriophage λ . Reflect Relative Importance of DNA Self-Repulsion and Bending Energies. Physical Review Letters, 2011, 106, 028102.	2.9	70
475	Influence of ions on genome packaging and ejection: A molecular dynamics study. Journal of Chemical Physics, 2011, 135, 095101.	1.2	17
476	Dual-trap optical tweezers with real-time force clamp control. Review of Scientific Instruments, 2011, 82, 083102.	0.6	7
477	Different Sequences Show Similar Quaternary Interaction Stabilities in Prohead Viral RNA Self-assembly. Journal of Biological Chemistry, 2011, 286, 14419-14426.	1.6	14
478	Does cell biology need physicists?. Physics Magazine, 0, 4, .	0.1	8
479	Regulation by interdomain communication of a headful packaging nuclease from bacteriophage T4. Nucleic Acids Research, 2011, 39, 2742-2755.	6.5	29

#	ARTICLE	IF	CITATIONS
480	Structure and assembly of the essential RNA ring component of a viral DNA packaging motor. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 7357-7362.	3.3	67
481	Controlling molecular transport through nanopores. Journal of the Royal Society Interface, 2011, 8, 1369-1378.	1.5	157
482	Folding and unfolding of a triple-branch DNA molecule with four conformational states. Philosophical Magazine, 2011, 91, 2049-2065.	0.7	13
483	Computational Approaches to Modeling Viral Structure and Assembly. Methods in Enzymology, 2011, 487, 513-543.	0.4	7
484	Proposed Ancestors of Phage Nucleic Acid Packaging Motors (and Cells). Viruses, 2011, 3, 1249-1280.	1.5	12
485	Go-and-Back method: Effective estimation of the hidden motion of proteins from single-molecule time series. Journal of Chemical Physics, 2011, 134, 135104.	1.2	1
486	Dualities in the analysis of phage DNA packaging motors. Bacteriophage, 2012, 2, e23829.	1.9	19
487	Michaelis-Menten dynamics of a polymer chain out of a dichotomous ATP-based motor. New Journal of Physics, 2012, 14, 023004.	1.2	9
488	Stepwise motion of a microcantilever driven by the hydrolysis of viral ATPases. Nanotechnology, 2012, 23, 015501.	1.3	5
489	Dynamics of polymer translocation into a circular nanocontainer through a nanopore. Journal of Chemical Physics, 2012, 136, 185103.	1.2	18
490	Intrinsic fluctuations lead to broad range of transduced forces in tethered-bead single-molecule experiments. Physical Review E, 2012, 86, 021902.	0.8	3
491	Capstan Friction Model for DNA Ejection from Bacteriophages. Physical Review Letters, 2012, 109, 248105.	2.9	21
492	“Push Through One-Way Valve” Mechanism of Viral DNA Packaging. Advances in Virus Research, 2012, 83, 415-465.	0.9	35
493	Measurement of probe displacement to the thermal resolution limit in photonic force microscopy using a miniature quadrant photodetector. Review of Scientific Instruments, 2012, 83, 023108.	0.6	13
494	Capsid Structure and Its Stability at the Late Stages of Bacteriophage SPP1 Assembly. Journal of Virology, 2012, 86, 6768-6777.	1.5	46
495	KINETICS OF POLYMER EJECTION FROM CAPSID CONFINEMENT: SCALING CONSIDERATIONS AND COMPUTER EXPERIMENT. International Journal of Modern Physics C, 2012, 23, 1240005.	0.8	1
496	Physical manipulation of the <i>Escherichia coli</i> chromosome reveals its soft nature. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E2649-56.	3.3	187
497	Mechanics of bacteriophage maturation. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 2342-2347.	3.3	106

#	ARTICLE	IF	CITATIONS
498	Structure of the RNA claw of the DNA packaging motor of bacteriophage ϕ 29. <i>Nucleic Acids Research</i> , 2012, 40, 9953-9963.	6.5	13
499	A Three-Helix Junction Is the Interface between Two Functional Domains of Prohead RNA in ϕ 29 DNA Packaging. <i>Journal of Virology</i> , 2012, 86, 11625-11632.	1.5	10
500	Portal-Large Terminase Interactions of the Bacteriophage T4 DNA Packaging Machine Implicate a Molecular Lever Mechanism for Coupling ATPase to DNA Translocation. <i>Journal of Virology</i> , 2012, 86, 4046-4057.	1.5	27
501	Sequential action of ATPase, ATP, ADP, Pi and dsDNA in procapsid-free system to enlighten mechanism in viral dsDNA packaging. <i>Nucleic Acids Research</i> , 2012, 40, 2577-2586.	6.5	31
502	The dsDNA Packaging Motor in Bacteriophage ϕ 29. <i>Advances in Experimental Medicine and Biology</i> , 2012, 726, 511-547.	0.8	41
503	Atomic Structure of Bordetella Bacteriophage Reveals a Jellyroll Fold in Cement Protein and a Topologically Distinct HK97-like Fold in Major Capsid Protein. <i>Microscopy and Microanalysis</i> , 2012, 18, 72-73.	0.2	2
505	Ejection Dynamics of a Semiflexible DNA Polymer from a Capsid. <i>Journal of the Physical Society of Japan</i> , 2012, 81, 034802.	0.7	8
506	The dynamic pause-unpackaging state, an off-translocation recovery state of a DNA packaging motor from bacteriophage T4. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 20000-20005.	3.3	34
507	Efficient Orthogonal Integration of the Bacteriophage ϕ 29 DNA-Portal Connector Protein in Engineered Lipid Bilayers. <i>ACS Synthetic Biology</i> , 2012, 1, 414-424.	1.9	3
508	Structural basis for DNA recognition and loading into a viral packaging motor. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 811-816.	3.3	57
509	Disease Detection and Management via Single Nanopore-Based Sensors. <i>Chemical Reviews</i> , 2012, 112, 6431-6451.	23.0	222
510	Self-assembly of microparticles in stable ring structures in an optical trap. <i>Physical Review A</i> , 2012, 85, .	1.0	20
511	Functional identification of the DNA packaging terminase from <i>Pseudomonas aeruginosa</i> phage PaP3. <i>Archives of Virology</i> , 2012, 157, 2133-2141.	0.9	20
512	Compressed wormlike chain moving out of confined space: A model of DNA ejection from bacteriophage. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2012, 28, 1219-1226.	1.5	8
513	An elastica model of the buckling of a nanoscale sheet perpendicular to a rigid substrate. <i>International Journal of Solids and Structures</i> , 2012, 49, 3681-3692.	1.3	0
514	Mechanical properties of viruses analyzed by atomic force microscopy: A virological perspective. <i>Virus Research</i> , 2012, 168, 1-22.	1.1	125
515	Interaction of viral ATPases with nucleotides measured with a microcantilever. <i>Sensors and Actuators B: Chemical</i> , 2012, 171-172, 263-270.	4.0	1
516	Energies and pressures in viruses: contribution of nonspecific electrostatic interactions. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 3746-3765.	1.3	120

#	ARTICLE	IF	CITATIONS
517	Easier sieving through narrower pores: fluctuations and barrier crossing in flow-driven polymer translocation. <i>Soft Matter</i> , 2012, 8, 4306.	1.2	18
518	Ejection dynamics of a ring polymer out of a nanochannel. <i>Soft Matter</i> , 2012, 8, 367-374.	1.2	18
519	Effects of Topology and Ionic Strength on Double-Stranded DNA Confined in Nanoslits. <i>Macromolecules</i> , 2012, 45, 2920-2927.	2.2	37
520	Detailed kinetic analysis of the ϕ 29 DNA packaging motor providing evidence for coordinated intersubunit ATPase activity of gp16. <i>Virology</i> , 2012, 432, 370-375.	1.1	2
521	Chain conformation of ring polymers under a cylindrical nanochannel confinement. <i>Physical Review E</i> , 2012, 86, 031803.	0.8	14
522	Weak temporal signals can synchronize and accelerate the transition dynamics of biopolymers under tension. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 14410-14415.	3.3	14
523	Adenine Recognition Is a Key Checkpoint in the Energy Release Mechanism of Phage T4 DNA Packaging Motor. <i>Journal of Molecular Biology</i> , 2012, 415, 329-342.	2.0	7
524	Challenging Packaging Limits and Infectivity of Phage ϕ 29. <i>Journal of Molecular Biology</i> , 2012, 415, 263-273.	2.0	25
525	Isolation of an Asymmetric RNA Uncoating Intermediate for a Single-Stranded RNA Plant Virus. <i>Journal of Molecular Biology</i> , 2012, 417, 65-78.	2.0	30
526	Viral Packaging of Nucleic Acids. , 2012, , 231-245.		0
527	4.22 Viral DNA Packaging Motors. , 2012, , 420-446.		6
528	Practical axial optical trapping. <i>Review of Scientific Instruments</i> , 2012, 83, 103106.	0.6	12
529	On the Morphology of Viral Capsids: Elastic Properties and Buckling Transitions. <i>Journal of Physical Chemistry B</i> , 2012, 116, 8604-8609.	1.2	38
530	Role of Channel Lysines and the "Push Through a One-Way Valve" Mechanism of the Viral DNA Packaging Motor. <i>Biophysical Journal</i> , 2012, 102, 127-135.	0.2	57
531	Minimalist Model for Force-Dependent DNA Replication. <i>Biophysical Journal</i> , 2012, 102, 810-818.	0.2	4
532	Viral connectors for DNA encapsulation. <i>Current Opinion in Biotechnology</i> , 2012, 23, 529-536.	3.3	35
533	Membrane-associated nanomotors for macromolecular transport. <i>Current Opinion in Biotechnology</i> , 2012, 23, 537-544.	3.3	23
534	Molecular motors for DNA translocation in prokaryotes. <i>Current Opinion in Biotechnology</i> , 2012, 23, 503-509.	3.3	22

#	ARTICLE	IF	CITATIONS
535	Entropy-Driven Single Molecule Tug-of-War of DNA at Microfluidic Interfaces. Nano Letters, 2012, 12, 1597-1602.	4.5	60
536	Understanding the physics of DNA using nanoscale single-molecule manipulation. Frontiers of Physics, 2012, 7, 576-581.	2.4	12
537	Probing the dynamics of an optically trapped particle by phase sensitive back focal plane interferometry. Optics Express, 2012, 20, 8317.	1.7	5
538	Lipid-Containing Viruses: Bacteriophage PRD1 Assembly. Advances in Experimental Medicine and Biology, 2012, 726, 365-377.	0.8	14
539	Genome Gating in Tailed Bacteriophage Capsids. Advances in Experimental Medicine and Biology, 2012, 726, 585-600.	0.8	39
540	Single-Molecule Studies of Viral DNA Packaging. Advances in Experimental Medicine and Biology, 2012, 726, 549-584.	0.8	38
541	Single-Molecule Studies Using Magnetic Traps. Cold Spring Harbor Protocols, 2012, 2012, pdb.top067488.	0.2	39
542	Global Structure of a Three-Way Junction in a Phi29 Packaging RNA Dimer Determined Using Site-Directed Spin Labeling. Journal of the American Chemical Society, 2012, 134, 2644-2652.	6.6	52
543	Force Microscopy – A Tool to Elucidate the Relationship Between Nanomechanics and Function in Viruses. , 2012, , .		1
544	Bacteriophages and Their Structural Organisation. , 0, , .		19
545	Current advances in Phi29 pRNA biology and its application in drug delivery. Wiley Interdisciplinary Reviews RNA, 2012, 3, 469-481.	3.2	25
546	Direct Measurement of Phage phi29 Stiffness Provides Evidence of Internal Pressure. Small, 2012, 8, 2366-2370.	5.2	71
547	Structure and function of the small terminase component of the DNA packaging machine in T4-like bacteriophages. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 817-822.	3.3	87
548	Short Noncontractile Tail Machines: Adsorption and DNA Delivery by Podoviruses. Advances in Experimental Medicine and Biology, 2012, 726, 143-179.	0.8	117
549	The Bacteriophage DNA Packaging Machine. Advances in Experimental Medicine and Biology, 2012, 726, 489-509.	0.8	111
550	Langevin dynamics simulation of polymer-assisted virus-like assembly. Journal of Chemical Physics, 2012, 136, 135101.	1.2	46
551	Polymer translocation under time-dependent driving forces: Resonant activation induced by attractive polymer-pore interactions. Journal of Chemical Physics, 2012, 136, 205104.	1.2	41
552	Feeling Inter- or Intramolecular Interactions with the Polymer Chain as Probe: Recent Progress in SMFS Studies on Macromolecular Interactions. ChemPhysChem, 2012, 13, 2238-2256.	1.0	18

#	ARTICLE	IF	CITATIONS
553	Electrostatics of DNA compaction in viruses, bacteria and eukaryotes: functional insights and evolutionary perspective. <i>Soft Matter</i> , 2012, 8, 9285.	1.2	54
554	Tail morphology controls DNA release in two <i>Salmonella</i> phages with one lipopolysaccharide receptor recognition system. <i>Molecular Microbiology</i> , 2012, 83, 1244-1253.	1.2	53
555	Nucleic acid packaging in viruses. <i>Current Opinion in Structural Biology</i> , 2012, 22, 65-71.	2.6	78
556	Differential assembly of Hepatitis B Virus core protein on single- and double-stranded nucleic acid suggest the dsDNA-filled core is spring-loaded. <i>Virology</i> , 2012, 430, 20-29.	1.1	68
557	Langevin dynamics simulations of micromechanics on graphics processors. <i>Mathematical Models and Computer Simulations</i> , 2012, 4, 272-287.	0.1	1
558	Strongly correlated electrostatics of viral genome packaging. <i>Journal of Biological Physics</i> , 2013, 39, 247-265.	0.7	4
559	Structure and Physics of Viruses. <i>Sub-Cellular Biochemistry</i> , 2013, , .	1.0	41
560	Confinement dynamics of a semiflexible chain inside nano-spheres. <i>Journal of Chemical Physics</i> , 2013, 139, 044912.	1.2	11
561	Herpes Virus Genome, The Pressure Is On. <i>Journal of the American Chemical Society</i> , 2013, 135, 11216-11221.	6.6	94
562	Structure of viruses: a short history. <i>Quarterly Reviews of Biophysics</i> , 2013, 46, 133-180.	2.4	86
564	Hepatitis Virus Capsid Polymorph Stability Depends on Encapsulated Cargo Size. <i>ACS Nano</i> , 2013, 7, 8447-8454.	7.3	27
565	Motor proteins and molecular motors: how to operate machines at the nanoscale. <i>Journal of Physics Condensed Matter</i> , 2013, 25, 463101.	0.7	85
566	Molecular Biophysics for the Life Sciences. , 2013, , .		2
567	Dynamics of polymer translocation into an anisotropic confinement. <i>Soft Matter</i> , 2013, 9, 2069.	1.2	17
568	Structural Ensemble and Dynamics of Toroidal-like DNA Shapes in Bacteriophage ϕ 29 Exit Cavity. <i>Biophysical Journal</i> , 2013, 104, 2058-2067.	0.2	10
569	Topological friction strongly affects viral DNA ejection. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 20081-20086.	3.3	103
570	Insights into chromatin fibre structure by <i>in vitro</i> and <i>in silico</i> single-molecule stretching experiments. <i>Biochemical Society Transactions</i> , 2013, 41, 494-500.	1.6	9
571	Protein Fluorescent Dye Labeling. , 2013, , 2015-2015.		0

#	ARTICLE	IF	CITATIONS
572	Effects of pulling forces, osmotic pressure, condensing agents and viscosity on the thermodynamics and kinetics of DNA ejection from bacteriophages to bacterial cells: a computational study. Journal of Physics Condensed Matter, 2013, 25, 115101.	0.7	10
573	Popping the cork: mechanisms of phage genome ejection. Nature Reviews Microbiology, 2013, 11, 194-204.	13.6	130
574	Discovery of a new motion mechanism of biomotors similar to the earth revolving around the sun without rotation. Virology, 2013, 446, 133-143.	1.1	19
575	The C-terminal domain of the bacteriophage T4 terminase docks on the prohead portal clip region during DNA packaging. Virology, 2013, 446, 293-302.	1.1	26
576	A Two-State Cooperative Expansion Converts the Procapsid Shell of Bacteriophage T5 into a Highly Stable Capsid Isomorphous to the Final Virion Head. Journal of Molecular Biology, 2013, 425, 1999-2014.	2.0	22
577	Communication: Origin of the contributions to DNA structure in phages. Journal of Chemical Physics, 2013, 138, 071103.	1.2	8
578	Equalities and Inequalities: Irreversibility and the Second Law of Thermodynamics at the Nanoscale. , 2013, , 145-172.		5
579	Incorporation of a viral DNA-packaging motor channel in lipid bilayers for real-time, single-molecule sensing of chemicals and double-stranded DNA. Nature Protocols, 2013, 8, 373-392.	5.5	32
580	Polymorphism of DNA conformation inside the bacteriophage capsid. Journal of Biological Physics, 2013, 39, 201-213.	0.7	12
581	Photoblinking. , 2013, , 1862-1862.		0
582	Positron Emission Tomography Methodology. , 2013, , 1912-1919.		0
583	Entropy, Energy, and Bending of DNA in Viral Capsids. Biophysical Journal, 2013, 104, L15-L17.	0.2	15
584	Torque Measurement at the Single-Molecule Level. Annual Review of Biophysics, 2013, 42, 583-604.	4.5	71
585	Mapping in vitro local material properties of intact and disrupted virions at high resolution using multi-harmonic atomic force microscopy. Nanoscale, 2013, 5, 4729.	2.8	48
586	Optical Methods to Study Protein-DNA Interactions in Vitro and in Living Cells at the Single-Molecule Level. International Journal of Molecular Sciences, 2013, 14, 3961-3992.	1.8	56
587	The ATPase of the phi29 DNA packaging motor is a member of the hexameric AAA+ superfamily. Virology, 2013, 443, 20-27.	1.1	42
588	Mechanical Properties of Viruses. Sub-Cellular Biochemistry, 2013, 68, 519-551.	1.0	21
589	Nanoscale Science and Technology with Plant Viruses and Bacteriophages. Sub-Cellular Biochemistry, 2013, 68, 667-702.	1.0	32

#	ARTICLE	IF	CITATIONS
590	A Model for Highly Strained DNA Compressed Inside a Protein Cavity. Journal of Computational and Nonlinear Dynamics, 2013, 8, .	0.7	8
591	RecG and UvsW catalyse robust DNA rewinding critical for stalled DNA replication fork rescue. Nature Communications, 2013, 4, 2368.	5.8	65
592	Structure, Adsorption to Host, and Infection Mechanism of Virulent Lactococcal Phage p2. Journal of Virology, 2013, 87, 12302-12312.	1.5	85
593	Evidence for non-equilibrium dynamics in viral DNA packaging from optical tweezers measurements. , 2013, , .		0
594	In vitro and in vivo delivery of genes and proteins using the bacteriophage T4 DNA packaging machine. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 5846-5851.	3.3	92
595	Modeling the mechanochemistry of the $\dot{\gamma} = 29$ DNA translocation motor. Physical Review E, 2013, 87, .	0.8	6
596	Large Terminase Conformational Change Induced by Connector Binding in Bacteriophage T7. Journal of Biological Chemistry, 2013, 288, 16998-17007.	1.6	33
597	Effect of capsid confinement on the chromatin organization of the SV40 minichromosome. Nucleic Acids Research, 2013, 41, 1569-1580.	6.5	29
598	Structures of the phage Sf6 large terminase provide new insights into DNA translocation and cleavage. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 8075-8080.	3.3	65
599	Biophysical and Ultrastructural Characterization of Adeno-Associated Virus Capsid Uncoating and Genome Release. Journal of Virology, 2013, 87, 2994-3002.	1.5	93
600	Tracking in atomic detail the functional specializations in viral RecA helicases that occur during evolution. Nucleic Acids Research, 2013, 41, 9396-9410.	6.5	23
601	Effect of Temperature and Capsid Tail on the Packing and Ejection of Viral DNA. PLoS ONE, 2013, 8, e52958.	1.1	11
602	Single-molecule and bulk approaches to the DnaB replication fork helicase. Frontiers in Bioscience - Landmark, 2013, 18, 224.	3.0	4
604	All motors have to decide is what to do with the DNA that is given them. Biomolecular Concepts, 2014, 5, 383-395.	1.0	3
605	Dynamics and limitations of spontaneous polyelectrolyte intrusion into a charged nanocavity. Physical Review E, 2014, 90, 060601.	0.8	11
606	Diverse self-association properties within a family of phage packaging RNAs. Rna, 2014, 20, 1759-1774.	1.6	18
607	Revisiting the genome packaging in viruses with lessons from the "Giants". Virology, 2014, 466-467, 15-26.	1.1	68
608	Blind Predictions of DNA and RNA Tweezers Experiments with Force and Torque. PLoS Computational Biology, 2014, 10, e1003756.	1.5	36

#	ARTICLE	IF	CITATIONS
609	Polymer translocation into a confined space: Influence of the chain stiffness and the shape of the confinement. <i>Journal of Chemical Physics</i> , 2014, 140, 094902.	1.2	14
611	Direct Observation of Dynamic Mechanical Regulation of DNA Condensation by Environmental Stimuli. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 10631-10635.	7.2	9
612	Single molecule mechanical manipulation for studying biological properties of proteins, <scp>DNA</scp>, and sugars. <i>Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology</i> , 2014, 6, 211-229.	3.3	34
613	Dynamics of polymer ejection from capsid. <i>Physical Review E</i> , 2014, 89, 052702.	0.8	14
614	Nanobiotechnology. , 2014, , .		5
615	Recent developments in molecular simulation approaches to study spherical virus capsids. <i>Molecular Simulation</i> , 2014, 40, 878-888.	0.9	19
616	Molecular architecture of tailed double-stranded DNA phages. <i>Bacteriophage</i> , 2014, 4, e28281.	1.9	196
617	Ultraslow relaxation of confined DNA. <i>Science</i> , 2014, 345, 380-381.	6.0	8
618	The Varicella-Zoster Virus Portal Protein Is Essential for Cleavage and Packaging of Viral DNA. <i>Journal of Virology</i> , 2014, 88, 7973-7986.	1.5	14
619	Invincible DNA tethers: covalent DNA anchoring for enhanced temporal and force stability in magnetic tweezers experiments. <i>Nucleic Acids Research</i> , 2014, 42, e137-e137.	6.5	54
620	Major capsid reinforcement by a minor protein in herpesviruses and phage. <i>Nucleic Acids Research</i> , 2014, 42, 9096-9107.	6.5	45
621	Highly Acidic C-Terminal Region of Cytomegalovirus pUL96 Determines Its Functions during Virus Maturation Independently of a Direct pp150 Interaction. <i>Journal of Virology</i> , 2014, 88, 4493-4503.	1.5	3
622	Reply to the Comment by S. Harvey on "Entropy, Energy, and Bending of DNA in Viral Capsids". <i>Biophysical Journal</i> , 2014, 106, 493-496.	0.2	3
624	Mechanical Operation and Intersubunit Coordination of Ring-Shaped Molecular Motors: Insights from Single-Molecule Studies. <i>Biophysical Journal</i> , 2014, 106, 1844-1858.	0.2	45
625	A Viral Packaging Motor Varies Its DNA Rotation and Step Size to Preserve Subunit Coordination as the Capsid Fills. <i>Cell</i> , 2014, 157, 702-713.	13.5	127
626	Single molecule techniques in DNA repair: A primer. <i>DNA Repair</i> , 2014, 20, 2-13.	1.3	9
627	Fourth class of convex equilateral polyhedron with polyhedral symmetry related to fullerenes and viruses. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 2920-2925.	3.3	34
628	Optical Tweezers Analysis of DNA-Protein Complexes. <i>Chemical Reviews</i> , 2014, 114, 3087-3119.	23.0	160

#	ARTICLE	IF	CITATIONS
629	Capsid expansion mechanism of bacteriophage T7 revealed by multistate atomic models derived from cryo-EM reconstructions. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E4606-14.	3.3	87
630	Polymer translocation: the first two decades and the recent diversification. Soft Matter, 2014, 10, 9016-9037.	1.2	171
631	Molecular Interactions and Residues Involved in Force Generation in the T4 Viral DNA Packaging Motor. Journal of Molecular Biology, 2014, 426, 4002-4017.	2.0	8
632	Ejecting Phage DNA against Cellular Turgor Pressure. Biophysical Journal, 2014, 107, 1924-1929.	0.2	8
633	Nonequilibrium dynamics and ultraslow relaxation of confined DNA during viral packaging. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 8345-8350.	3.3	81
634	RELATIONSHIP BETWEEN THE GENOME PACKING IN THE BACTERIOPHAGE CAPSID AND THE KINETICS OF DNA EJECTION. Biophysical Reviews and Letters, 2014, 09, 81-104.	0.9	23
635	DNA Y Structure: A Versatile, Multidimensional Single Molecule Assay. Nano Letters, 2014, 14, 6475-6480.	4.5	24
636	Tight focusing properties of radially polarized Lorentzâ€“Gaussian beam. Optik, 2014, 125, 5339-5342.	1.4	7
637	Morphogenesis of filaments growing in flexible confinements. Nature Communications, 2014, 5, 4437.	5.8	38
638	Solid-to-fluid DNA transition inside HSV-1 capsid close to the temperature of infection. Nature Chemical Biology, 2014, 10, 861-867.	3.9	38
639	Adenosine triphosphatases of thermophilic archaeal double-stranded DNA viruses. Cell and Bioscience, 2014, 4, 37.	2.1	7
640	Melting of DNA Nonoriented Fibers: A Wide-Angle X-ray Diffraction Study. Journal of Physical Chemistry B, 2014, 118, 3785-3792.	1.2	12
641	pH-Induced Stability Switching of the Bacteriophage HK97 Maturation Pathway. Journal of the American Chemical Society, 2014, 136, 3097-3107.	6.6	21
642	Evidence for an electrostatic mechanism of force generation by the bacteriophage T4 DNA packaging motor. Nature Communications, 2014, 5, 4173.	5.8	26
643	Solid-to-fluidâ€“like DNA transition in viruses facilitates infection. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 14675-14680.	3.3	48
644	Structureâ€“Function Analysis of the DNA Translocating Portal of the Bacteriophage T4 Packaging Machine. Journal of Molecular Biology, 2014, 426, 1019-1038.	2.0	26
645	Elastic Properties and Heterogeneous Stiffness of the Phi29 Motor Connector Channel. Biophysical Journal, 2014, 106, 1338-1348.	0.2	21
646	Repulsive DNA-DNA Interactions Accelerate Viral DNA Packaging in Phage Phi29. Physical Review Letters, 2014, 112, 248101.	2.9	36

#	ARTICLE	IF	CITATIONS
647	Controlling the extent of viral genome release by a combination of osmotic stress and polyvalent cations. <i>Physical Review E</i> , 2015, 92, 022708.	0.8	4
648	Polymer ejection from strong spherical confinement. <i>Physical Review E</i> , 2015, 92, 062715.	0.8	9
650	Equilibrium large-scale conformational properties of DNA. , 0, , 72-136.		1
651	A Single-Strand Annealing Protein Clamps DNA to Detect and Secure Homology. <i>PLoS Biology</i> , 2015, 13, e1002213.	2.6	22
652	Active polymer translocation in the three-dimensional domain. <i>Physical Review E</i> , 2015, 91, 022113.	0.8	24
653	Nano/Micro Science and Technology in Biorheology. , 2015, , .		7
654	Swelling and Softening of the Cowpea Chlorotic Mottle Virus in Response to pH Shifts. <i>Biophysical Journal</i> , 2015, 108, 2541-2549.	0.2	40
655	An RNA Domain Imparts Specificity and Selectivity to a Viral DNA Packaging Motor. <i>Journal of Virology</i> , 2015, 89, 12457-12466.	1.5	9
656	Continuous Allosteric Regulation of a Viral Packaging Motor by a Sensor that Detects the Density and Conformation of Packaged DNA. <i>Biophysical Journal</i> , 2015, 108, 315-324.	0.2	25
657	Nanomechanical force transducers for biomolecular and intracellular measurements: is there room to shrink and why do it?. <i>Reports on Progress in Physics</i> , 2015, 78, 024101.	8.1	10
658	DNA buckling in bacteriophage cavities as a mechanism to aid virus assembly. <i>Journal of Structural Biology</i> , 2015, 189, 251-258.	1.3	2
659	Charge-driven dynamics of nascent-chain movement through the SecYEG translocon. <i>Nature Structural and Molecular Biology</i> , 2015, 22, 145-149.	3.6	70
660	A Simple RNA-DNA Scaffold Templates the Assembly of Monofunctional Virus-Like Particles. <i>Journal of the American Chemical Society</i> , 2015, 137, 7584-7587.	6.6	34
661	Axial Optical Traps: A New Direction for Optical Tweezers. <i>Biophysical Journal</i> , 2015, 108, 2759-2766.	0.2	24
662	Old, new, and widely true: The bacteriophage T4 DNA packaging mechanism. <i>Virology</i> , 2015, 479-480, 650-656.	1.1	55
663	Structure and mechanism of the ATPase that powers viral genome packaging. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, E3792-9.	3.3	74
664	Cryo-EM structure of the bacteriophage T4 portal protein assembly at near-atomic resolution. <i>Nature Communications</i> , 2015, 6, 7548.	5.8	88
665	Continuity of states between the cholesteric â†’ line hexatic transition and the condensation transition in DNA solutions. <i>Scientific Reports</i> , 2015, 4, 6877.	1.6	38

#	ARTICLE	IF	CITATIONS
666	Force-induced remodelling of proteins and their complexes. <i>Current Opinion in Structural Biology</i> , 2015, 30, 89-99.	2.6	42
667	Investigation of the binding modes between AIE-active molecules and dsDNA by single molecule force spectroscopy. <i>Nanoscale</i> , 2015, 7, 8939-8945.	2.8	25
668	Twist-Induced Defects of the P-SSP7 Genome Revealed by Modeling the Cryo-EM Density. <i>Journal of Physical Chemistry B</i> , 2015, 119, 4937-4943.	1.2	7
669	Complex Biological Systems. , 2015, , 1-11.		0
670	Thermodynamic Interrogation of the Assembly of a Viral Genome Packaging Motor Complex. <i>Biophysical Journal</i> , 2015, 109, 1663-1675.	0.2	13
671	Exploring the Balance between DNA Pressure and Capsid Stability in Herpesviruses and Phages. <i>Journal of Virology</i> , 2015, 89, 9288-9298.	1.5	51
672	On size-dependent stability and infectivity of λ bacterial phages. <i>Journal of Applied Physics</i> , 2015, 117, .	1.1	2
673	Mechanisms of DNA Packaging by Large Double-Stranded DNA Viruses. <i>Annual Review of Virology</i> , 2015, 2, 351-378.	3.0	132
674	The scrunchworm hypothesis: Transitions between A-DNA and B-DNA provide the driving force for genome packaging in double-stranded DNA bacteriophages. <i>Journal of Structural Biology</i> , 2015, 189, 1-8.	1.3	42
675	Forces from the Portal Govern the Late-Stage DNA Transport in a Viral DNA Packaging Nanomotor. <i>Biophysical Journal</i> , 2016, 111, 162-177.	0.2	8
676	Recent progress on the mechanics of sharply bent DNA. <i>Science China: Physics, Mechanics and Astronomy</i> , 2016, 59, 1.	2.0	2
677	Assembly and Mechanical Properties of the Cargo-Free and Cargo-Loaded Bacterial Nanocompartment Encapsulin. <i>Biomacromolecules</i> , 2016, 17, 2522-2529.	2.6	62
678	Impact of surface charge density and motor force upon polyelectrolyte packaging in viral capsids. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2016, 54, 1054-1065.	2.4	2
679	Three-way junction conformation dictates self-association of phage packaging RNAs. <i>RNA Biology</i> , 2016, 13, 635-645.	1.5	12
680	Elastic Properties of Nucleic Acids by Single-Molecule Force Spectroscopy. <i>Annual Review of Biophysics</i> , 2016, 45, 65-84.	4.5	67
681	Packaging Models versus Modeling Packaging. <i>Biophysical Journal</i> , 2016, 110, 287-288.	0.2	1
682	Phi29 Connector-DNA Interactions Govern DNA Crunching and Rotation, Supporting the Check-Valve Model. <i>Biophysical Journal</i> , 2016, 110, 455-469.	0.2	10
683	DNA Equation of State: In Vitro vs In Viro. <i>Journal of Physical Chemistry B</i> , 2016, 120, 6051-6060.	1.2	17

#	ARTICLE	IF	CITATIONS
684	Cargoâ€‘shell and cargoâ€‘cargo couplings govern the mechanics of artificially loaded virus-derived cages. <i>Nanoscale</i> , 2016, 8, 9328-9336.	2.8	60
685	Single DNA molecule jamming and history-dependent dynamics during motor-driven viral packaging. <i>Nature Physics</i> , 2016, 12, 757-761.	6.5	24
686	Stretching of Tethered DNA in Nanoslits. <i>ACS Macro Letters</i> , 2016, 5, 1114-1118.	2.3	13
687	Prohead <scp>RNA</scp>: a noncoding viral <scp>RNA</scp> of novel structure and function. <i>Wiley Interdisciplinary Reviews RNA</i> , 2016, 7, 428-437.	3.2	13
688	Ejection dynamics of semiflexible polymers out of a nanochannel. <i>Chinese Journal of Polymer Science (English Edition)</i> , 2016, 34, 1196-1207.	2.0	2
689	Characterisation of optically driven microstructures for manipulating single DNA molecules under a fluorescence microscope. <i>IET Nanobiotechnology</i> , 2016, 10, 124-128.	1.9	9
690	Coarse-grained simulations of an active filament propelled by a self-generated solute gradient. <i>Physical Review E</i> , 2016, 93, 032508.	0.8	14
691	DNA Scrunching in the Packaging of Viral Genomes. <i>Journal of Physical Chemistry B</i> , 2016, 120, 6200-6207.	1.2	10
692	The structure and intermolecular forces of DNA condensates. <i>Nucleic Acids Research</i> , 2016, 44, 2036-2046.	6.5	70
693	Walker-A Motif Acts to Coordinate ATP Hydrolysis with Motor Output in Viral DNA Packaging. <i>Journal of Molecular Biology</i> , 2016, 428, 2709-2729.	2.0	31
694	Introduction to Soft Matter. <i>Lecture Notes in Physics</i> , 2016, , 3-27.	0.3	1
695	Structural and Molecular Basis for Coordination in a Viral DNA Packaging Motor. <i>Cell Reports</i> , 2016, 14, 2017-2029.	2.9	70
696	Effect of Uniformly Applied Force and Molecular Characteristics of a Polymer Chain on Its Adhesion to Graphene Substrates. <i>Langmuir</i> , 2016, 32, 2750-2760.	1.6	13
697	Probing Natureâ€™s Nanomachines One Molecule at a Time. <i>Biophysical Journal</i> , 2016, 110, 1004-1007.	0.2	13
698	The large terminase DNA packaging motor grips DNA with its ATPase domain for cleavage by the flexible nuclease domain. <i>Nucleic Acids Research</i> , 2017, 45, gkw1356.	6.5	31
699	Amino Acid Side Chains Buried along Intersubunit Interfaces in a Viral Capsid Preserve Low Mechanical Stiffness Associated with Virus Infectivity. <i>ACS Nano</i> , 2017, 11, 2194-2208.	7.3	23
700	Optical methods for measuring DNA folding. <i>Modern Physics Letters B</i> , 2017, 31, 1730001.	1.0	6
701	A Molecular View of the Dynamics of dsDNA Packing Inside Viral Capsids in the Presence of Ions. <i>Biophysical Journal</i> , 2017, 112, 1302-1315.	0.2	20

#	ARTICLE	IF	CITATIONS
702	Atomic force microscopy of virus shells. Biochemical Society Transactions, 2017, 45, 499-511.	1.6	25
703	Membrane Penetration by Bacterial Viruses. Journal of Virology, 2017, 91, .	1.5	21
704	Inferring dissipation from current fluctuations. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 184004.	0.7	113
705	Compaction of quasi-one-dimensional elastoplastic materials. Nature Communications, 2017, 8, 15568.	5.8	17
706	A mechanical model of bacteriophage DNA ejection. Physics Letters, Section A: General, Atomic and Solid State Physics, 2017, 381, 2386-2390.	0.9	4
707	Phage-like packing structures with mean field sequence dependence. Journal of Computational Chemistry, 2017, 38, 1191-1197.	1.5	7
708	Structure of a headful DNA-packaging bacterial virus at 2.9 Å... resolution by electron cryo-microscopy. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 3601-3606.	3.3	26
709	High-Velocity Collisions of Nanodiamond. Journal of Physical Chemistry C, 2017, 121, 1140-1145.	1.5	9
710	DNA packaging in viral capsids with peptide arms. Soft Matter, 2017, 13, 600-607.	1.2	7
711	Role of Condensing Particles in Polymer Confinement: A Model for Virus-Packed "Minichromosomes". Biophysical Journal, 2017, 113, 1643-1653.	0.2	6
712	Experimental comparison of forces resisting viral DNA packaging and driving DNA ejection. Physical Review E, 2017, 95, 052408.	0.8	10
713	Generalized elastica patterns in a curved rotating Hele-Shaw cell. Physical Review E, 2017, 96, 023103.	0.8	1
714	Directional mechanical stability of Bacteriophage T29 motor's 3WJ-pRNA: Extraordinary robustness along portal axis. Science Advances, 2017, 3, e1601684.	4.7	17
715	Integrated Method to Attach DNA Handles and Functionally Select Proteins to Study Folding and Protein-Ligand Interactions with Optical Tweezers. Scientific Reports, 2017, 7, 10843.	1.6	28
716	Contact Mechanics of a Small Icosahedral Virus. Physical Review Letters, 2017, 119, 038102.	2.9	37
717	Permeability modes in fluctuating lipid membranes with DNA-translocating pores. Advances in Colloid and Interface Science, 2017, 247, 543-554.	7.0	3
718	Active translocation of a semiflexible polymer assisted by an ATP-based molecular motor. Scientific Reports, 2017, 7, 4188.	1.6	6
719	Uniform description of polymer ejection dynamics from capsid with and without hydrodynamics. Physical Review E, 2017, 95, 052418.	0.8	10

#	ARTICLE	IF	CITATIONS
720	Topology of polymer chains under nanoscale confinement. <i>Nanoscale</i> , 2017, 9, 12170-12177.	2.8	16
721	Single-molecule measurements of viral ssRNA packaging. <i>Rna</i> , 2017, 23, 119-129.	1.6	4
722	Mechanically Watching the ClpXP Proteolytic Machinery. <i>Methods in Molecular Biology</i> , 2017, 1486, 317-341.	0.4	8
723	Deciphering the Molecular Mechanism of the Bacteriophage ϕ 29 DNA Packaging Motor. <i>Methods in Molecular Biology</i> , 2017, 1486, 343-355.	0.4	6
724	Dynamics of end-pulled polymer translocation through a nanopore. <i>Europhysics Letters</i> , 2017, 120, 38004.	0.7	17
725	Multiplexed fluctuation-dissipation-theorem calibration of optical tweezers inside living cells. <i>Review of Scientific Instruments</i> , 2017, 88, 113112.	0.6	3
726	Altering the speed of a DNA packaging motor from bacteriophage T4. <i>Nucleic Acids Research</i> , 2017, 45, 11437-11448.	6.5	9
727	Complex polymer microtools for on-demand contact-free applications. , 2017, , 167-191.		0
728	Macromolecular Assembly. , 2017, , 63-74.		0
729	New tricks for old dogs: improving the accuracy of biomolecular force fields by pair-specific corrections to non-bonded interactions. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 8432-8449.	1.3	180
730	Protein-mediated looping of DNA under tension requires supercoiling. <i>Nucleic Acids Research</i> , 2018, 46, 2370-2379.	6.5	27
731	Chromosome Translocation Inflates <i>Bacillus</i> Forespores and Impacts Cellular Morphology. <i>Cell</i> , 2018, 172, 758-770.e14.	13.5	42
732	Bioconjugated Core-Shell Microparticles for High-Force Optical Trapping. <i>Particle and Particle Systems Characterization</i> , 2018, 35, 1700448.	1.2	6
733	Forced phage uncorking: viral DNA ejection triggered by a mechanically sensitive switch. <i>Nanoscale</i> , 2018, 10, 1898-1904.	2.8	25
734	Bacteriophage N4 large terminase: expression, purification and X-ray crystallographic analysis. <i>Acta Crystallographica Section F, Structural Biology Communications</i> , 2018, 74, 198-204.	0.4	5
735	Atomic force microscopy of virus shells. <i>Seminars in Cell and Developmental Biology</i> , 2018, 73, 199-208.	2.3	41
736	Force spectroscopy analysis in polymer translocation. <i>Physical Review E</i> , 2018, 98, .	0.8	3
737	Nucleotide-dependent DNA gripping and an end-clamp mechanism regulate the bacteriophage T4 viral packaging motor. <i>Nature Communications</i> , 2018, 9, 5434.	5.8	24

#	ARTICLE	IF	CITATIONS
738	Phage assembly and the special role of the portal protein. <i>Current Opinion in Virology</i> , 2018, 31, 66-73.	2.6	46
739	Engineering with Biomolecular Motors. <i>Accounts of Chemical Research</i> , 2018, 51, 3015-3022.	7.6	27
740	Microbial Bioprospecting for Sustainable Development. , 2018, , .		13
741	Bacteriophage-Mediated Biosensors for Detection of Foodborne Pathogens. , 2018, , 353-384.		2
742	Intensity Distribution and Trapping Potential of a Defocussed Optical Tweezer. , 2018, , .		0
743	Viral nanomechanics with a virtual atomic force microscope. <i>Journal of Physics Condensed Matter</i> , 2018, 30, 264001.	0.7	16
744	Methods for Single-Molecule Sensing and Detection Using Bacteriophage Phi29 DNA Packaging Motor. <i>Methods in Molecular Biology</i> , 2018, 1805, 423-450.	0.4	3
745	Mechanochemical coupling and bi-phasic force-velocity dependence in the ultra-fast ring ATPase SpoIIIE. <i>ELife</i> , 2018, 7, .	2.8	10
746	Single-Molecule Measurements of Motor-Driven Viral DNA Packaging in Bacteriophages Phi29, Lambda, and T4 with Optical Tweezers. <i>Methods in Molecular Biology</i> , 2018, 1805, 393-422.	0.4	9
747	Influence of Microscopic Interactions on the Flexible Mechanical Properties of Viral DNA. <i>Biophysical Journal</i> , 2018, 115, 763-772.	0.2	7
748	The Bacteriophage Head-to-Tail Interface. <i>Sub-Cellular Biochemistry</i> , 2018, 88, 305-328.	1.0	29
749	ATP/ADP modulates gp16â€pRNA conformational change in the Phi29 DNA packaging motor. <i>Nucleic Acids Research</i> , 2019, 47, 9818-9828.	6.5	10
750	The effects of a knot and its conformational relaxation on the ejection of a single polymer chain from confinement. <i>Journal of Chemical Physics</i> , 2019, 151, .	1.2	6
751	The breakdown of the local thermal equilibrium approximation for a polymer chain during packaging. <i>Journal of Chemical Physics</i> , 2019, 150, 204901.	1.2	6
752	Computational Virology: Molecular Simulations of Virus Dynamics and Interactions. <i>Advances in Experimental Medicine and Biology</i> , 2019, 1215, 201-233.	0.8	12
753	Atomic Force Microscopy of Viruses. <i>Advances in Experimental Medicine and Biology</i> , 2019, 1215, 159-179.	0.8	18
754	Physical Virology. <i>Advances in Experimental Medicine and Biology</i> , 2019, , .	0.8	8
755	Virus Maturation. <i>Advances in Experimental Medicine and Biology</i> , 2019, 1215, 129-158.	0.8	6

#	ARTICLE	IF	CITATIONS
756	Overstretching Double-Stranded RNA, Double-Stranded DNA, and RNA-DNA Duplexes. Biophysical Journal, 2019, 117, 509-519.	0.2	13
757	Portal Protein: The Orchestrator of Capsid Assembly for the dsDNA Tailed Bacteriophages and Herpesviruses. Annual Review of Virology, 2019, 6, 141-160.	3.0	64
758	A Tour de Force on the Double Helix: Exploiting DNA Mechanics To Study DNA-Based Molecular Machines. Biochemistry, 2019, 58, 4667-4676.	1.2	9
759	Watching a virus grow. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 22420-22422.	3.3	5
760	The path towards functional nanoparticle-DNA origami composites. Materials Science and Engineering Reports, 2019, 138, 153-209.	14.8	15
761	The application of atomic force microscopy for viruses and protein shells: Imaging and spectroscopy. Advances in Virus Research, 2019, 105, 161-187.	0.9	17
762	Functional Dissection of a Viral DNA Packaging Machine's Walker B Motif. Journal of Molecular Biology, 2019, 431, 4455-4474.	2.0	13
763	Biological Applications of Nanoparticles in Optical Microscopy. , 2019, , 469-495.		1
764	Multiple liquid crystalline geometries of highly compacted nucleic acid in a dsRNA virus. Nature, 2019, 570, 252-256.	13.7	59
765	Simple and Efficient Room-Temperature Release of Biotinylated Nucleic Acids from Streptavidin and Its Application to Selective Molecular Detection. Analytical Chemistry, 2019, 91, 7996-8001.	3.2	13
766	Structural assembly of the tailed bacteriophage ϕ 29. Nature Communications, 2019, 10, 2366.	5.8	44
767	DNA Conformational Changes Play a Force-Generating Role during Bacteriophage Genome Packaging. Biophysical Journal, 2019, 116, 2172-2180.	0.2	13
768	A Hydrophobic Network: Intersubunit and Intercapsomer Interactions Stabilizing the Bacteriophage P22 Capsid. Journal of Virology, 2019, 93, .	1.5	8
769	Structural determinants of mechanical resistance against breakage of a virus-based protein nanoparticle at a resolution of single amino acids. Nanoscale, 2019, 11, 9369-9383.	2.8	9
770	Harnessing structural instability for cell durotaxis. Acta Mechanica Sinica/Lixue Xuebao, 2019, 35, 355-364.	1.5	4
771	Slow and steady wins the race: physical limits on the rate of viral DNA packaging. Current Opinion in Virology, 2019, 36, 32-37.	2.6	6
772	Solid-state nanopore hydrodynamics and transport. Biomicrofluidics, 2019, 13, 011301.	1.2	32
773	Packing of semiflexible polymers into viral capsid in crowded environments. Physical Review E, 2019, 100, 052412.	0.8	1

#	ARTICLE	IF	CITATIONS
774	Evidence that a catalytic glutamate and an Arginine Toggle™ act in concert to mediate ATP hydrolysis and mechanochemical coupling in a viral DNA packaging motor. <i>Nucleic Acids Research</i> , 2019, 47, 1404-1415.	6.5	17
775	Targeting the terminase: An important step forward in the treatment and prophylaxis of human cytomegalovirus infections. <i>Antiviral Research</i> , 2019, 161, 116-124.	1.9	29
776	Atomic force microscopy-based mechanobiology. <i>Nature Reviews Physics</i> , 2019, 1, 41-57.	11.9	500
777	Single-Molecule Analysis and Engineering of DNA Motors. <i>Chemical Reviews</i> , 2020, 120, 36-78.	23.0	59
778	In vitro Analysis of O-Antigen-Specific Bacteriophage P22 Inactivation by Salmonella Outer Membrane Vesicles. <i>Frontiers in Microbiology</i> , 2020, 11, 510638.	1.5	11
779	Pressurized DNA state inside herpes capsids: A novel antiviral target. <i>PLoS Pathogens</i> , 2020, 16, e1008604.	2.1	27
780	Directional translocation resistance of Zika xrRNA. <i>Nature Communications</i> , 2020, 11, 3749.	5.8	15
781	Dynamics of a dielectric microsphere inside a nonlinear laser trap. <i>Applied Physics Letters</i> , 2020, 117, .	1.5	12
782	NMR structure of a vestigial nuclease provides insight into the evolution of functional transitions in viral dsDNA packaging motors. <i>Nucleic Acids Research</i> , 2020, 48, 11737-11749.	6.5	11
783	Single-particle virology. <i>Biophysical Reviews</i> , 2020, 12, 1141-1154.	1.5	16
784	Understanding the properties of liquid-crystalline polymers by computational modeling. <i>JPhys Materials</i> , 2020, 3, 032008.	1.8	19
785	The T4 TerL Prohead Packaging Motor Does Not Drive DNA Translocation by a Proposed Dehydration Mechanism. <i>Viruses</i> , 2020, 12, 522.	1.5	4
786	Pulling a DNA molecule through a nanopore embedded in an anionic membrane: tension propagation coupled to electrostatics. <i>Journal of Physics Condensed Matter</i> , 2020, 32, 385101.	0.7	5
787	Structure and the role of filling rate on model dsDNA packed in a phage capsid. <i>Physical Review E</i> , 2020, 101, 012406.	0.8	3
788	Quantitative Study of the Chiral Organization of the Phage Genome Induced by the Packaging Motor. <i>Biophysical Journal</i> , 2020, 118, 2103-2116.	0.2	5
789	Cryo-electron microscopy for the study of virus assembly. <i>Nature Chemical Biology</i> , 2020, 16, 231-239.	3.9	65
790	Spontaneous Injection of Polymer into a Spherical Cavity from a Narrow Tube. <i>Macromolecules</i> , 2020, 53, 1694-1700.	2.2	5
791	Fine structure of viral dsDNA encapsidation. <i>Physical Review E</i> , 2020, 101, 022703.	0.8	7

#	ARTICLE	IF	CITATIONS
792	Retained Stability of the RNA Structure in DNA Packaging Motor with a Single Mg ²⁺ Ion Bound at the Double Mg-Clamp Structure. Journal of Physical Chemistry B, 2020, 124, 701-707.	1.2	4
793	On virus growth and form. Physics Reports, 2020, 847, 1-102.	10.3	104
794	Stretching DNA to twice the normal length with single-molecule hydrodynamic trapping. Lab on A Chip, 2020, 20, 1780-1791.	3.1	7
795	Biophysical approaches promote understanding of the viral replication cycle. Journal of the Korean Physical Society, 2021, 78, 329-342.	0.3	0
796	Physics of viral dynamics. Nature Reviews Physics, 2021, 3, 76-91.	11.9	58
797	Mechanical characterization of P2 bacteriophage by using Young's modulus measurements. AIP Advances, 2021, 11, 015245.	0.6	2
798	Specific Immobilization of Rotaviruses for Atomic Force Microscopy Using Langmuir Antibody Films Based on Amphiphilic Polyelectrolytes. , 2021, , 117-131.		0
800	Polymer translocation through a nanopore assisted by an environment of active rods. Physical Review Research, 2021, 3, .	1.3	6
801	RNA Pore Translocation with Static and Periodic Forces: Effect of Secondary and Tertiary Elements on Process Activation and Duration. Journal of Physical Chemistry B, 2021, 125, 1098-1106.	1.2	7
802	Energetics of the DNA-Filled Head. , 2021, , 167-174.		3
803	Numerical analysis on the optical force calculation in the Rayleigh scattering regime. Optical Review, 2021, 28, 1-7.	1.2	2
804	Fluctuating nonlinear spring theory: Strength, deformability, and toughness of biological nanoparticles from theoretical reconstruction of force-deformation spectra. Acta Biomaterialia, 2021, 122, 263-277.	4.1	5
805	Towards a Quantitative Single Particle Characterization by Super Resolution Microscopy: From Virus Structures to Antivirals Design. Frontiers in Bioengineering and Biotechnology, 2021, 9, 647874.	2.0	14
806	Ordering, phase behavior, and correlations of semiflexible polymers in confinement. Journal of Chemical Physics, 2021, 154, 090901.	1.2	17
807	Structural Insights into gp16 ATPase in the Bacteriophage ϕ 29 DNA Packaging Motor. Biochemistry, 2021, 60, 886-897.	1.2	7
808	Optical tweezers in single-molecule biophysics. Nature Reviews Methods Primers, 2021, 1, .	11.8	229
810	Viral packaging ATPases utilize a glutamate switch to couple ATPase activity and DNA translocation. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	12
812	Atomistic basis of force generation, translocation, and coordination in a viral genome packaging motor. Nucleic Acids Research, 2021, 49, 6474-6488.	6.5	17

#	ARTICLE	IF	CITATIONS
813	Driven injection of a polymer into a spherical cavity: A Langevin Dynamics simulation study. Chinese Physics B, 0, , .	0.7	0
814	The PLB measurement for the connector in Phi29 bacteriophage reveals the function of its channel loop. Biophysical Journal, 2021, 120, 1650-1664.	0.2	0
815	A viral genome packaging motor transitions between cyclic and helical symmetry to translocate dsDNA. Science Advances, 2021, 7, .	4.7	35
816	A DNA packaging motor inchworms along one strand allowing it to adapt to alternative double-helical structures. Nature Communications, 2021, 12, 3439.	5.8	7
817	Unfolding and Translocation of Knotted Proteins by Clp Biological Nanomachines: Synergistic Contribution of Primary Sequence and Topology Revealed by Molecular Dynamics Simulations. Journal of Physical Chemistry B, 2021, 125, 7335-7350.	1.2	9
818	Model systems for optical trapping: the physical basis and biological applications. Biophysical Reviews, 2021, 13, 515-529.	1.5	3
819	Effects of Packaging History on the Ejection of a Polymer Chain from a Small Confinement. Macromolecules, 2021, 54, 7174-7182.	2.2	7
820	Heat-induced transitions of an empty minute virus of mice capsid in explicit water: all-atom MD simulation. Journal of Biomolecular Structure and Dynamics, 2021, , 1-14.	2.0	1
821	3D calibration of microsphere position in optical tweezers using the back-focal-plane interferometry method. Optics Express, 2021, 29, 32271.	1.7	2
822	Mechanisms and clinical importance of bacteriophage resistance. FEMS Microbiology Reviews, 2022, 46, .	3.9	92
823	The coevolution of large and small terminases of bacteriophages is a result of purifying selection leading to phenotypic stabilization. Virology, 2021, 564, 13-25.	1.1	1
824	Portal Vertex. , 2021, , 105-114.		0
825	T3/T7 DNA Packaging. , 2005, , 59-79.		2
826	Bacteriophage SPP1 DNA Packaging. , 2005, , 89-101.		5
827	The Φ 29 DNA Packaging Motor. , 2005, , 102-116.		2
828	Cleavage and Packaging of Herpes Simplex Virus 1 DNA. , 2005, , 135-150.		28
829	Force Spectroscopy with Optical and Magnetic Tweezers. , 2008, , 23-96.		15
830	Nanopores: Generation, Engineering, and Single-Molecule Applications. , 2009, , 293-339.		11

#	ARTICLE	IF	CITATIONS
831	Hepatitis B Virus (HBV): The Life-cycle and Assembly of a Complex Virus. , 2007, , 131-151.		3
832	Condensed Genome Structure. Advances in Experimental Medicine and Biology, 2012, 726, 469-487.	0.8	39
833	Single-Molecule Methods. , 2013, , 257-288.		2
834	Introduction to Optical Tweezers. Methods in Molecular Biology, 2017, 1486, 3-24.	0.4	10
835	Single-Molecule Studies of RecBCD. Methods in Molecular Biology, 2009, 587, 155-172.	0.4	1
836	Work Fluctuations, Transient Violations of the Second Law and Free-Energy Recovery Methods: Perspectives in Theory and Experiments. , 2004, , 193-226.		8
837	Coordination and Control Inside Simple Biomolecular Machines. Advances in Experimental Medicine and Biology, 2014, 805, 353-384.	0.8	4
838	Thermodynamics of Protein Folding from Coarse-Grained Models™ Perspectives. , 2008, , 203-246.		8
839	Random Knotting: Theorems, Simulations and Applications. Lecture Notes in Mathematics, 2009, , 187-217.	0.1	4
840	Viral DNA Packaging: One Step at a Time. Springer Series in Chemical Physics, 2010, , 237-269.	0.2	3
841	Force-Extension and Force-Clamp AFM Spectroscopies in Investigating Mechanochemical Reactions and Mechanical Properties of Single Biomolecules. Nanoscience and Technology, 2010, , 395-423.	1.5	4
842	Atomistic to Continuum Modeling of DNA Molecules. , 2012, , 1-53.		4
843	Protrusive Forces Generated by Dendritic Actin Networks During Cell Crawling. , 2010, , 359-379.		2
844	Theoretical Studies on Assembly, Physical Stability and Dynamics of Viruses. Sub-Cellular Biochemistry, 2013, 68, 553-595.	1.0	17
845	Optical Tweezers to Study Viruses. Sub-Cellular Biochemistry, 2013, 68, 273-304.	1.0	9
847	Chapter 10. Protein–Nucleic Acid Interactions. , 2007, , 383-426.		1
848	Pulling a folded polymer through a nanopore. Journal of Physics Condensed Matter, 2021, 33, 015101.	0.7	6
849	Distribution of a polymer chain between two interconnected spherical cavities*. Chinese Physics B, 2020, 29, 108201.	0.7	2

#	ARTICLE	IF	CITATIONS
850	Function of a viral genome packaging motor from bacteriophage T4 is insensitive to DNA sequence. Nucleic Acids Research, 2020, 48, 11602-11614.	6.5	3
854	Physical Biology at the Crossroads. , 2008, , 115-135.		1
855	Mechanical Properties of Viruses. , 2010, , 85-102.		2
856	Viruses' Life History: Towards a Mechanistic Basis of a Trade-Off between Survival and Reproduction among Phages. PLoS Biology, 2006, 4, e193.	2.6	254
857	A Promiscuous DNA Packaging Machine from Bacteriophage T4. PLoS Biology, 2011, 9, e1000592.	2.6	53
858	A "Coiled-Coil" Motif Is Important for Oligomerization and DNA Binding Properties of Human Cytomegalovirus Protein UL77. PLoS ONE, 2011, 6, e25115.	1.1	15
859	Biochemical and Biophysical Characterization of the dsDNA Packaging Motor from the Lactococcus lactis Bacteriophage Ascphi28. Viruses, 2021, 13, 15.	1.5	6
860	Two-subunit DNA escort mechanism and inactive subunit bypass in an ultra-fast ring ATPase. ELife, 2015, 4, .	2.8	18
861	Cryo-electron tomography reveals novel features of a viral RNA replication compartment. ELife, 2017, 6, .	2.8	89
862	Biophysical properties of single rotavirus particles account for the functions of protein shells in a multilayered virus. ELife, 2018, 7, .	2.8	38
863	An explanation for origin unwinding in eukaryotes. ELife, 2019, 8, .	2.8	23
864	Pressure-driven release of viral genome into a host nucleus is a mechanism leading to herpes infection. ELife, 2019, 8, .	2.8	45
865	The remarkable viral portal vertex: structure and a plausible model for mechanism. Current Opinion in Virology, 2021, 51, 65-73.	2.6	13
866	Organization, Replication, Transposition, and Repair of DNA. , 2001, , 1529-1601.		0
867	Alterations of the Portal Protein, gpB, of Bacteriophage ϕ Suppress Mutations in <i>cosQ</i> , the Site Required for Termination of DNA Packaging. Genetics, 2002, 161, 21-31.	1.2	10
868	Optical tweezers measure forces in single biopolymer molecules. , 2003, , .		0
869	The eternal molecule. , 2003, , 82-139.		0
870	Genetics of <i>cosQ</i> , the DNA-Packaging Termination Site of Phage ϕ : Local Suppressors and Methylation Effects. Genetics, 2003, 165, 11-21.	1.2	3

#	ARTICLE	IF	CITATIONS
871	The Engines of Biomolecular Motors. , 2004, , .		0
872	Mechanics of Biological Nanotechnology. , 2004, , 739-762.		0
873	Mechanics of Biological Nanotechnology. , 2004, , 739-762.		0
875	Chapter 7. RNA Structure and Function. , 2007, , 253-293.		0
876	Mechanics of Biological Nanotechnology. , 2007, , 1199-1222.		0
877	Mathematical Approaches for Stoichiometric Quantification in Studies of Viral Assembly and DNA Packaging. , 2008, , 401-448.		0
878	Single-Molecule Studies of DNA. , 2008, , 1139-1186.		0
880	Coarse-Grained Models for Nucleic Acids and Large Nucleoprotein Assemblies. , 2008, , 225-235.		0
882	Chapter 11. Mechanisms of Genome Packaging. RSC Biomolecular Sciences, 2010, , 203-219.	0.4	1
883	Topology of Viral DNA. , 2010, , 255-288.		0
885	Membrane-Embedded Channel of Bacteriophage Phi29 DNA-Packaging Motor for Translocation and Sensing of Double-Stranded DNA. , 2011, , 77-106.		0
886	Multiscale Modeling of Virus Structure, Assembly, and Dynamics. Biological and Medical Physics Series, 2012, , 167-189.	0.3	0
887	THE HERPES SIMPLEX VIRUS DNA PACKAGING MACHINE. , 2012, , 329-342.		0
888	Bacterial Organization at the Smallest Level: Molecular Motors, Nanowires, and Outer Membrane Vesicles. , 2014, , 103-125.		0
889	Application to Biology: The Ear Hair Bundle. Springer Theses, 2014, , 103-122.	0.0	0
890	Introduction to Bacteriophage Biology and Diversity. , 0, , 11-29.		0
892	Complex Biological Systems. , 2016, , 239-251.		0
893	POLYMER CAPTURE. , 2016, , 259-288.		0

#	ARTICLE	IF	CITATIONS
896	Chromosome Translocation Inflates <i>Bacillus subtilis</i> Forespores and Impacts Cellular Morphology. SSRN Electronic Journal, 0, , .	0.4	0
904	Verification of finite bath fluctuation theorem for a non-ergodic system. Journal of Physics A: Mathematical and Theoretical, 2020, 53, 345002.	0.7	2
905	Structure and Mechanical Stabilities of the Three-Way Junction Motifs in Prohead RNA. Journal of Physical Chemistry B, 2021, 125, 12125-12134.	1.2	2
907	Phage Protein Interactions in the Inhibition Mechanism of Bacterial Cell. , 2020, , 121-142.		2
913	High-resolution optical tweezers for single-molecule manipulation. Yale Journal of Biology and Medicine, 2013, 86, 367-83.	0.2	30
914	A viral genome packaging ring-ATPase is a flexibly coordinated pentamer. Nature Communications, 2021, 12, 6548.	5.8	10
915	Viral genome packaging machines: Structure and enzymology. The Enzymes, 2021, 50, 369-413.	0.7	9
916	How and why RNA genomes are (partially) ordered in viral capsids. Current Opinion in Virology, 2022, 52, 203-210.	2.6	2
918	Tall tails: cryo-electron microscopy of phage tail DNA ejection conduits. Biochemical Society Transactions, 2022, 50, 459-22W.	1.6	11
920	RNA Packaging in the Cystovirus Bacteriophages: Dynamic Interactions during Capsid Maturation. International Journal of Molecular Sciences, 2022, 23, 2677.	1.8	7
921	Innovative developments and emerging technologies in RNA therapeutics. RNA Biology, 2022, 19, 313-332.	1.5	19
922	High-Resolution Single-Molecule Magnetic Tweezers. Annual Review of Biochemistry, 2022, 91, 33-59.	5.0	25
923	Applications of Atomic Force Microscopy in HIV-1 Research. Viruses, 2022, 14, 648.	1.5	6
924	Packing a flexible fiber into a cavity. Physical Review E, 2022, 105, 035002.	0.8	1
925	Revealing the Molecular Physics of Lattice Self-Assembly by Vibrational Hyperspectral Imaging. Langmuir, 2022, 38, 3017-3031.	1.6	1
926	Long DNA constructs to study helicases and nucleic acid translocases using optical tweezers. Methods in Enzymology, 2022, , .	0.4	1
927	Kinetics of ATP/ADP Binding to the gp16 ATPase. Biophysical Journal, 2022, , .	0.2	0
929	Posttranslational Protein Translocation through Membranes at the Single-Molecule Level. , 2022, , 80-94.		1

#	ARTICLE	IF	CITATIONS
932	Exploring the Effect of Mechanical Anisotropy of Protein Structures in the Unfoldase Mechanism of AAA+ Molecular Machines. <i>Nanomaterials</i> , 2022, 12, 1849.	1.9	6
933	Revisiting nonlinear optical trapping of a single nanoparticle using generalized Lorentz-Mie theory. <i>Physical Review A</i> , 2022, 105, .	1.0	3
935	Modelling the Effect of Geometry and Loading on Mechanical Response of SARS-CoV-2. <i>BioNanoScience</i> , 2022, 12, 867-876.	1.5	1
936	Translocation of a Self-propelled Polymer through a Narrow Pore. <i>Chinese Journal of Polymer Science (English Edition)</i> , 2022, 40, 1670-1678.	2.0	3
937	Molecular dynamics of DNA translocation by FtsK. <i>Nucleic Acids Research</i> , 2022, 50, 8459-8470.	6.5	1
938	The development of single molecule force spectroscopy: from polymer biophysics to molecular machines. <i>Quarterly Reviews of Biophysics</i> , 2022, 55, .	2.4	6
939	Structural basis of DNA packaging by a ring-type ATPase from an archetypal viral system. <i>Nucleic Acids Research</i> , 2022, 50, 8719-8732.	6.5	6
940	End-pulled polymer translocation through a many-body flexible pore. <i>Polymer</i> , 2022, 259, 125305.	1.8	2
941	Energetic and Structural Properties of Macromolecular Assemblies. <i>Graduate Texts in Physics</i> , 2022, , 83-105.	0.1	0
942	Catching the Conformational Wave: Measuring the Working Strokes of Protofilaments as They Curl Outward from Disassembling Microtubule Tips. <i>Methods in Molecular Biology</i> , 2022, , 653-676.	0.4	2
943	Structures of a large prolate virus capsid in unexpanded and expanded states generate insights into the icosahedral virus assembly. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	3.3	12
945	Imaging the Infection Cycle of T7 at the Single Virion Level. <i>International Journal of Molecular Sciences</i> , 2022, 23, 11252.	1.8	1
946	Viral Small Terminase: A Divergent Structural Framework for a Conserved Biological Function. <i>Viruses</i> , 2022, 14, 2215.	1.5	11
948	Mechanical tuning of virus-like particles. <i>Journal of Colloid and Interface Science</i> , 2023, 634, 963-971.	5.0	3
949	SV40 T-antigen uses a DNA shearing mechanism to initiate origin unwinding. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	3.3	3
950	CryoEM structure and assembly mechanism of a bacterial virus genome gatekeeper. <i>Nature Communications</i> , 2022, 13, .	5.8	7
951	Unique relationships between phages and endospore-forming hosts. <i>Trends in Microbiology</i> , 2023, 31, 498-510.	3.5	8
954	Self-Ordering of Buckling, Bending, and Bumping Beams. <i>Physical Review Letters</i> , 2023, 130, .	2.9	5

#	ARTICLE	IF	CITATIONS
955	Ring-stacked capsids of white spot syndrome virus and structural transitions with genome ejection. Science Advances, 2023, 9, .	4.7	3
957	Label-free microscopy for virus infections. Microscopy (Oxford, England), 2023, 72, 204-212.	0.7	2
960	Proteinâ€DNA Interactions. , 2022, , 522-571.		0
961	Noncoding RNA. , 2022, , 259-278.		0
970	Ejection dynamics of spherically confined active polymers through a small pore. Soft Matter, 2023, 19, 4628-4633.	1.2	1
973	Virus Mechanics: A Structure-Based Biological Perspective. Springer Series in Biophysics, 2023, , 237-282.	0.4	0