

Alexander Y Grosberg

List of Publications by Year in descending order

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197
papers

13,184
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202
docs citations

202
times ranked

7745
citing authors

#	ARTICLE	IF	CITATIONS
1	Colloquium: The physics of charge inversion in chemical and biological systems. <i>Reviews of Modern Physics</i> , 2002, 74, 329-345.	45.6	988
2	Some problems of the statistical physics of polymer chains with volume interaction. <i>Reviews of Modern Physics</i> , 1978, 50, 683-713.	45.6	668
3	Electrostatic focusing of unlabelled DNA into nanoscale pores using a salt gradient. <i>Nature Nanotechnology</i> , 2010, 5, 160-165.	31.5	625
4	On the transition coordinate for protein folding. <i>Journal of Chemical Physics</i> , 1998, 108, 334-350.	3.0	484
5	Modeling the conductance and DNA blockade of solid-state nanopores. <i>Nanotechnology</i> , 2011, 22, 315101.	2.6	380
6	The role of topological constraints in the kinetics of collapse of macromolecules. <i>Journal De Physique</i> , 1988, 49, 2095-2100.	1.8	374
7	Fast Translocation of Proteins through Solid State Nanopores. <i>Nano Letters</i> , 2013, 13, 658-663.	9.1	316
8	Crumpled Globule Model of the Three-Dimensional Structure of DNA. <i>Europhysics Letters</i> , 1993, 23, 373-378.	2.0	287
9	Molecular dynamics simulation study of nonconcatenated ring polymers in a melt. I. Statics. <i>Journal of Chemical Physics</i> , 2011, 134, 204904.	3.0	284
10	Heteropolymer freezing and design: Towards physical models of protein folding. <i>Reviews of Modern Physics</i> , 2000, 72, 259-314.	45.6	264
11	From a melt of rings to chromosome territories: the role of topological constraints in genome folding. <i>Reports on Progress in Physics</i> , 2014, 77, 022601.	20.1	246
12	Pathways for protein folding: is a new view needed?. <i>Current Opinion in Structural Biology</i> , 1998, 8, 68-79.	5.7	244
13	Direct observation of DNA knots using a solid-state nanopore. <i>Nature Nanotechnology</i> , 2016, 11, 1093-1097.	31.5	214
14	Molecular dynamics simulation study of nonconcatenated ring polymers in a melt. II. Dynamics. <i>Journal of Chemical Physics</i> , 2011, 134, 204905.	3.0	210
15	Two-Stage Kinetics of Single-Chain Collapse. Polystyrene in Cyclohexane. <i>Macromolecules</i> , 1995, 28, 180-189.	4.8	208
16	Reversible Molecular Adsorption Based on Multiple-Point Interaction by Shrinkable Gels. <i>Science</i> , 1999, 286, 1543-1545.	12.6	205
17	Rheology of Ring Polymer Melts: From Linear Contaminants to Ring-Linear Blends. <i>Physical Review Letters</i> , 2012, 108, 038301.	7.8	179
18	Statistics of polymer rings in the melt: a numerical simulation study. <i>Physical Biology</i> , 2009, 6, 025013.	1.8	170

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19	Equilibrium swelling properties of polyampholytic hydrogels. <i>Journal of Chemical Physics</i> , 1996, 104, 8713-8720.	3.0	162
20	Screening of a charged particle by multivalent counterions in salty water: Strong charge inversion. <i>Journal of Chemical Physics</i> , 2000, 113, 1110-1125.	3.0	161
21	Quantitative theory of the globule-to-coil transition. 1. Link density distribution in a globule and its radius of gyration. <i>Macromolecules</i> , 1992, 25, 1970-1979.	4.8	160
22	How Proteins Search for Their Specific Sites on DNA: The Role of DNA Conformation. <i>Biophysical Journal</i> , 2006, 90, 2731-2744.	0.5	160
23	Macroions in Salty Water with Multivalent Ions: Giant Inversion of Charge. <i>Physical Review Letters</i> , 2000, 85, 1568-1571.	7.8	151
24	Critical Exponents for Random Knots. <i>Physical Review Letters</i> , 2000, 85, 3858-3861.	7.8	145
25	Closed loops of nearly standard size: common basic element of protein structure. <i>FEBS Letters</i> , 2000, 466, 283-286.	2.8	145
26	Statistics of Knots, Geometry of Conformations, and Evolution of Proteins. <i>PLoS Computational Biology</i> , 2006, 2, e45.	3.2	134
27	Artificial rheotaxis. <i>Science Advances</i> , 2015, 1, e1400214.	10.3	131
28	DNA capture into a nanopore: Interplay of diffusion and electrohydrodynamics. <i>Journal of Chemical Physics</i> , 2010, 133, 165102.	3.0	127
29	Polymer Gels That Memorize Elements of Molecular Conformation. <i>Macromolecules</i> , 2000, 33, 8693-8697.	4.8	126
30	Nonequilibrium statistical mechanics of mixtures of particles in contact with different thermostats. <i>Physical Review E</i> , 2015, 92, 032118.	2.1	125
31	Statistical mechanics of simple models of protein folding and design. <i>Biophysical Journal</i> , 1997, 73, 3192-3210.	0.5	122
32	Studies of the Thermal Volume Transition of Poly(N-isopropylacrylamide) Hydrogels by High-Sensitivity Differential Scanning Microcalorimetry. 2. Thermodynamic Functions. <i>Macromolecules</i> , 2000, 33, 8685-8692.	4.8	121
33	Maximization of the connectivity repertoire as a statistical principle governing the shapes of dendritic arbors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 12536-12541.	7.1	117
34	Chromatin Hydrodynamics. <i>Biophysical Journal</i> , 2014, 106, 1871-1881.	0.5	112
35	Nonrandomness in protein sequences: evidence for a physically driven stage of evolution?. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1994, 91, 12972-12975.	7.1	109
36	Annealed lattice animal model and Flory theory for the melt of non-concatenated rings: towards the physics of crumpling. <i>Soft Matter</i> , 2014, 10, 560-565.	2.7	102

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37	Topologically driven swelling of a polymer loop. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 13431-13435.	7.1	98
38	Practical Applicability of the Jarzynski Relation in Statistical Mechanics: A Pedagogical Example. Journal of Physical Chemistry B, 2005, 109, 6805-6811.	2.6	93
39	Single-chain collapse or precipitation? Kinetic diagram of the states of a polymer solution. Macromolecules, 1993, 26, 4249-4251.	4.8	90
40	Fractal and statistical properties of large compact polymers: a computational study. Polymer, 2004, 45, 717-731.	3.8	90
41	Flory-type theory of a knotted ring polymer. Physical Review E, 1996, 54, 6618-6622.	2.1	88
42	Force-Driven Polymer Translocation through a Nanopore: An Old Problem Revisited. Journal of Physical Chemistry B, 2011, 115, 14127-14135.	2.6	88
43	Thermodynamic procedure to synthesize heteropolymers that can renature to recognize a given target molecule.. Proceedings of the National Academy of Sciences of the United States of America, 1994, 91, 12976-12979.	7.1	83
44	Quantitative theory of the globule-to-coil transition. 4. Comparison of theoretical results with experimental data. Macromolecules, 1992, 25, 1996-2003.	4.8	78
45	Multiple point adsorption in a heteropolymer gel and the Tanaka approach to imprinting: experiment and theory. Progress in Polymer Science, 2003, 28, 1489-1515.	24.7	78
46	Primary sequences of proteinlike copolymers: Levy-flight type long-range correlations. Physical Review E, 2001, 64, 040903.	2.1	77
47	Chain length dependence of the state diagram of a single stiff-chain macromolecule: Theory and Monte Carlo simulation. Journal of Chemical Physics, 2003, 118, 3392-3400.	3.0	77
48	Metastable Tight Knots in a Wormlike Polymer. Physical Review Letters, 2007, 99, 217801.	7.8	77
49	Dependency of swelling on the length of subchain in poly(N,N-dimethylacrylamide)-based gels. Journal of Chemical Physics, 1997, 106, 2906-2910.	3.0	74
50	Giant charge inversion of a macroion due to multivalent counterions and monovalent coions: Molecular dynamics study. Journal of Chemical Physics, 2001, 115, 567-574.	3.0	73
51	Studies of the Thermal Volume Transition of Poly(N-isopropylacrylamide) Hydrogels by High-Sensitivity Differential Scanning Microcalorimetry. 1. Dynamic Effects. Macromolecules, 1999, 32, 1471-1475.	4.8	70
52	First Order Phase Transition and Evidence for Frustrations in Polyampholytic Gels. Physical Review Letters, 1999, 82, 4863-4865.	7.8	69
53	Reversible adsorption of calcium ions by imprinted temperature sensitive gels. Journal of Chemical Physics, 2001, 114, 2812-2816.	3.0	69
54	Effect of Reversible Cross-linker, N,N'-Bis(acryloyl)cystamine, on Calcium Ion Adsorption by Imprinted Gels. Langmuir, 2001, 17, 4431-4436.	3.5	67

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55	How accurate must potentials be for successful modeling of protein folding?. Journal of Chemical Physics, 1995, 103, 9482-9491.	3.0	66
56	Freely Jointed Polymers Made of Droplets. Physical Review Letters, 2018, 121, 138002.	7.8	64
57	Gel catalysts that switch on and off. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 9861-9864.	7.1	63
58	Minimal Surfaces on Unconcatenated Polymer Rings in Melt. ACS Macro Letters, 2016, 5, 750-754.	4.8	63
59	On the theory of $\hat{\Gamma}$ -condensation. Biopolymers, 1982, 21, 2413-2432.	2.4	59
60	How Long Does It Take to Pull an Ideal Polymer into a Small Hole?. Physical Review Letters, 2006, 96, 228105.	7.8	57
61	Frustrations in Polymer Conformation in Gels and their Minimization through Molecular Imprinting. Physical Review Letters, 2000, 85, 5000-5003.	7.8	54
62	Folding thermodynamics and kinetics of imprinted renaturable heteropolymers. Journal of Chemical Physics, 1994, 101, 8246-8257.	3.0	52
63	Understanding the dynamics of rings in the melt in terms of the annealed tree model. Journal of Physics Condensed Matter, 2015, 27, 064117.	1.8	52
64	Flory theory of randomly branched polymers. Soft Matter, 2017, 13, 1223-1234.	2.7	52
65	Nonlinear Shear Rheology of Entangled Polymer Rings. Macromolecules, 2021, 54, 2811-2827.	4.8	51
66	Polymers with annealed and quenched branchings belong to different universality classes. Macromolecules, 1993, 26, 1293-1295.	4.8	50
67	Enumerations of the Hamiltonian walks on a cubic sublattice. Journal of Physics A, 1994, 27, 6231-6236.	1.6	50
68	On the Compact Form of Linear Duplex DNA: Globular States of the Uniform Elastic (Persistent) Macromolecule. Journal of Biomolecular Structure and Dynamics, 1986, 3, 859-872.	3.5	49
69	Are DNA Transcription Factor Proteins Maxwellian Demons?. Biophysical Journal, 2008, 95, 1151-1156.	0.5	49
70	Quantitative theory of the globule-to-coil transition. 2. Density-density correlation in a globule and the hydrodynamic radius of a macromolecule. Macromolecules, 1992, 25, 1980-1990.	4.8	47
71	Quantitative theory of the globule-to-coil transition. 3. Globule-globule interaction and polymer solution binodal and spinodal curves in the globular range. Macromolecules, 1992, 25, 1991-1995.	4.8	47
72	Polymer gels that can recognize and recover molecules. Faraday Discussions, 1995, 101, 201.	3.2	47

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73	Is Heteropolymer Freezing Well Described by the Random Energy Model?. <i>Physical Review Letters</i> , 1996, 76, 3987-3990.	7.8	47
74	Dynamics of Double Stranded DNA Reptation From Bacteriophage. <i>Journal of Biomolecular Structure and Dynamics</i> , 1992, 9, 911-920.	3.5	46
75	Brownian vortexes. <i>Physical Review E</i> , 2009, 80, 010401.	2.1	45
76	Freezing transition of random heteropolymers consisting of an arbitrary set of monomers. <i>Physical Review E</i> , 1995, 51, 3381-3392.	2.1	44
77	Electrophoresis of a charge-inverted macroion complex: Molecular-dynamics study. <i>European Physical Journal E</i> , 2002, 7, 371-379.	1.6	44
78	First passage times and asymmetry of DNA translocation. <i>Physical Review E</i> , 2005, 72, 061918.	2.1	44
79	Equilibrium self-assembly of small RNA viruses. <i>Physical Review E</i> , 2016, 93, 032405.	2.1	44
80	On the theory of folding kinetics for short proteins. <i>Folding & Design</i> , 1997, 2, 109-114.	4.5	43
81	Phase Diagram of Heteropolymers with an Imprinted Conformation. <i>Macromolecules</i> , 1995, 28, 2218-2227.	4.8	42
82	Simultaneous Multiple-Point Adsorption of Aluminum Ions and Charged Molecules by a Polyampholyte Thermosensitive Gel: Controlling Frustrations in a Heteropolymer Gel. <i>Langmuir</i> , 2001, 17, 3616-3622.	3.5	42
83	OPTIMAL LINEAGE PRINCIPLE FOR AGE-STRUCTURED POPULATIONS. <i>Evolution; International Journal of Organic Evolution</i> , 2012, 66, 115-134.	2.3	40
84	Random walks on braid groups: Brownian bridges, complexity and statistics. <i>Journal of Physics A</i> , 1996, 29, 2411-2433.	1.6	39
85	Volume interactions in the statistical physics of a polymer macromolecule. <i>Uspekhi Fizicheskikh Nauk</i> , 1979, 22, 123-142.	0.3	38
86	Topological constraints in polymer network strong collapse. <i>Macromolecules</i> , 1991, 24, 2789-2793.	4.8	38
87	Winding angle distribution for planar random walk, polymer ring entangled with an obstacle, and all that: Spitzer's Edwards-Prager-Frisch model revisited. <i>Journal of Physics A</i> , 2003, 36, 8955-8981.	1.6	37
88	Limits of analogy between self-avoidance and topology-driven swelling of polymer loops. <i>Physical Review E</i> , 2005, 72, 061803.	2.1	37
89	Electrophoretic capture of a DNA chain into a nanopore. <i>Physical Review E</i> , 2013, 87, 042722.	2.1	37
90	Topological repulsion between polymer globules. <i>Journal of Chemical Physics</i> , 2000, 112, 6434-6442.	3.0	36

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91	Polygamous particles. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 18731-18736.	7.1	34
92	Polymer topology. , 1993, , 1-29.		32
93	Algebraic invariants of knots and disordered Potts model. Journal of Physics A, 1992, 25, 4659-4672.	1.6	30
94	Phase transition in a heteropolymer chain at a selective interface. Physical Review E, 1994, 50, 1912-1921.	2.1	29
95	Freezing Transition of Compact Polyampholytes. Physical Review Letters, 1996, 77, 3565-3568.	7.8	29
96	Propagation of tension along a polymer chain. Physical Review E, 2012, 86, 011803.	2.1	29
97	Thermodynamics of the coil to frozen globule transition in heteropolymers. Journal of Chemical Physics, 1997, 107, 5118-5124.	3.0	28
98	On the role of conformational geometry in protein folding. Journal of Chemical Physics, 1999, 111, 10375-10380.	3.0	28
99	Molecular dynamics of strongly coupled multichain Coulomb polymers in pure and salt-added Langevin fluids. Journal of Chemical Physics, 1999, 110, 8176-8188.	3.0	28
100	How two meters of DNA fit into a cell nucleus: Polymer models with topological constraints and experimental data. Polymer Science - Series C, 2012, 54, 1-10.	1.7	28
101	Pressure and flow of exponentially self-correlated active particles. Physical Review E, 2017, 96, 052605.	2.1	28
102	Fractality of DNA Texts. Journal of Biomolecular Structure and Dynamics, 1994, 12, 655-669.	3.5	27
103	Metastable Globules in Good Solvents: Topologically Stabilized State of Polymers. Europhysics Letters, 1995, 32, 505-510.	2.0	26
104	Molecular dynamics study of the structure organization in a strongly coupled chain of charged particles. Physical Review E, 1997, 56, 5798-5808.	2.1	24
105	Polymer-Population Mapping and Localization in the Space of Phenotypes. Physical Review Letters, 2006, 97, 068101.	7.8	22
106	Comparing the results of lattice and off-lattice simulations for the melt of nonconcatenated rings. Journal of Physics A: Mathematical and Theoretical, 2013, 46, 065002.	2.1	22
107	Kinetics of DNA-coated sticky particles. Physical Review E, 2013, 88, 022304.	2.1	22
108	Adsorption kinetics of a single polymer on a solid plane. Physical Review E, 2008, 77, 061603.	2.1	20

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109	A novel family of space-filling curves in their relation to chromosome conformation in eukaryotes. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2013, 392, 6375-6388.	2.6	20
110	How to create polymers with protein-like capabilities: A theoretical suggestion. <i>Physica D: Nonlinear Phenomena</i> , 1997, 107, 316-321.	2.8	19
111	Salt effects on multiple-point adsorption of target molecules by heteropolymer gel. <i>Journal of Chemical Physics</i> , 2001, 115, 1596-1600.	3.0	19
112	Effects of Ligand Binding on Relative Stability of Subchain Conformations of Weakly Charged N-Isopropylacrylamide Gels in Swollen and Shrunken States. <i>Macromolecules</i> , 2003, 36, 9115-9121.	4.8	19
113	Fluctuations and mass action law breakdown in statistical thermodynamics of small systems. <i>Journal of Chemical Physics</i> , 1991, 95, 7541-7547.	3.0	18
114	Conformational Entropy of a Branched Polymer. <i>Macromolecules</i> , 1995, 28, 3718-3727.	4.8	18
115	Conductivity of a suspension of nanowires in a weakly conducting medium. <i>Physical Review B</i> , 2006, 73, .	3.2	18
116	Disordered polymers. <i>Physics-Uspokhi</i> , 1997, 40, 125-158.	2.2	17
117	A few notes about polymer knots. <i>Polymer Science - Series A</i> , 2009, 51, 70-79.	1.0	17
118	Globular state of branched random heteropolymers. <i>Journal of Physics A</i> , 1993, 26, 1037-1049.	1.6	16
119	The structure of the nematic-isotropic interface in polymer systems. <i>Liquid Crystals</i> , 1991, 10, 539-553.	2.2	15
120	Reversible molecular adsorption as a tool to observe freezing and to perform design of heteropolymer gels. <i>Zeitschrift Fur Elektrotechnik Und Elektrochemie</i> , 1998, 102, 1529-1533.	0.9	15
121	Total Curvature and Total Torsion of a Freely Jointed Circular Polymer with $n \gg 1$ Segments. <i>Macromolecules</i> , 2008, 41, 4524-4527.	4.8	15
122	The random search problem: trends and perspectives. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2009, 42, 430301.	2.1	15
123	Averaged Kauffman Invariant and Quasi-Knot Concept for Linear Polymers. <i>Europhysics Letters</i> , 1992, 20, 613-619.	2.0	14
124	Minimal model for Brownian vortexes. <i>Physical Review E</i> , 2010, 82, 021123.	2.1	14
125	Electrophoresis of a DNA coil near a nanopore. <i>Physical Review E</i> , 2013, 87, 042723.	2.1	14
126	A new hydrogel system undergoing a volume phase transition upon heating. <i>Macromolecular Chemistry and Physics</i> , 1999, 200, 1603-1607.	2.2	13

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127	Free Energy Self-Averaging in Protein-Sized Random Heteropolymers. <i>Physical Review Letters</i> , 2001, 87, 078104.	7.8	13
128	The abundance of unknots in various models of polymer loops. <i>Journal of Physics A</i> , 2006, 39, 9081-9092.	1.6	13
129	Phase diagram of an imprinted copolymer in a random external field. <i>Journal of Physics A</i> , 1995, 28, 3657-3666.	1.6	12
130	Models of protein interactions: how to choose one. <i>Folding & Design</i> , 1998, 3, 203-211.	4.5	12
131	Molecular Dynamics Simulations of Polyampholytes. <i>Langmuir</i> , 1999, 15, 4052-4055.	3.5	12
132	Unexpected Scenario of Glass Transition in Polymer Globules: An Exactly Enumerable Model. <i>Physical Review Letters</i> , 2000, 84, 2417-2420.	7.8	12
133	A few remarks evoked by Binhi and Savin's review on magnetobiology. <i>Physics-Uspexhi</i> , 2003, 46, 1113-1116.	2.2	12
134	Dissipation in a System Driven by Two Different Thermostats. <i>Polymer Science - Series C</i> , 2018, 60, 118-121.	1.7	12
135	On the properties of polymer globules in the high density limit. <i>Journal of Chemical Physics</i> , 1998, 108, 9144-9149.	3.0	11
136	Multiple-contact adsorption of target molecules by heteropolymer gels. <i>Macromolecular Symposia</i> , 2004, 207, 1-16.	0.7	11
137	Perturbative theory for Brownian vortexes. <i>Physical Review E</i> , 2015, 91, 062144.	2.1	11
138	From statistics of regular tree-like graphs to distribution function and gyration radius of branched polymers. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2015, 48, 345003.	2.1	11
139	Scale-Dependent Viscosity in Polymer Fluids. <i>Journal of Physical Chemistry B</i> , 2016, 120, 6383-6390.	2.6	11
140	Do knots self-tighten for entropic reasons?. <i>Polymer Science - Series A</i> , 2016, 58, 864-872.	1.0	11
141	On the Toroidal Condensed State of Closed Circular DNA. <i>Journal of Biomolecular Structure and Dynamics</i> , 1985, 3, 515-520.	3.5	10
142	Random Walks in the Space of Conformations of Toy Proteins. <i>Physical Review Letters</i> , 2000, 84, 1828-1831.	7.8	10
143	Shape imprinting due to variable disulfide bonds in polyacrylamide gels. <i>Journal of Chemical Physics</i> , 2001, 114, 10551-10556.	3.0	10
144	Extruding Loops to Make Loopy Globules?. <i>Biophysical Journal</i> , 2016, 110, 2133-2135.	0.5	10

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145	Human bloodsucking parasite in service of materials science. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 18-20.	7.1	10
146	On microphase segregation of interpenetrating polymer networks. Die Makromolekulare Chemie Theory and Simulations, 1993, 2, 517-522.	1.0	9
147	Two types of topological constraints in polymer networks. Macromolecules, 1993, 26, 3200-3204.	4.8	9
148	First passage time distribution for the 1D diffusion of particles with internal degrees of freedom. Journal of Physics A: Mathematical and Theoretical, 2009, 42, 434011.	2.1	9
149	Sequence Dependence of Viral RNA Encapsidation. Journal of Physical Chemistry B, 2016, 120, 6038-6050.	2.6	9
150	Three-body problem for Langevin dynamics with different temperatures. Physical Review E, 2020, 101, 032131.	2.1	9
151	On the theory of the condensed states of heteropolymers. Journal of Statistical Physics, 1985, 38, 149-160.	1.2	8
152	Coexistence of Native and Denatured Phases in a Single Proteinlike Molecule. Physical Review Letters, 1999, 83, 4670-4673.	7.8	8
153	A Few Disconnected Notes Related to Levinthal Paradox. Journal of Biomolecular Structure and Dynamics, 2002, 20, 317-321.	3.5	8
154	Design of toy proteins capable of rearranging conformations in a mechanical fashion. Journal of Chemical Physics, 2003, 118, 5201-5212.	3.0	8
155	Facilitated diffusion of proteins through crumpled fractal DNA globules. Physical Review E, 2015, 92, 012702.	2.1	7
156	Memory effects in active particles with exponentially correlated propulsion. Physical Review E, 2018, 97, 012602.	2.1	7
157	Microphase separation in randomly branched polymers. Macromolecules, 1993, 26, 3598-3600.	4.8	6
158	Worm-like polymer loops and Fourier knots. Journal of Physics A, 2006, 39, L507-L513.	1.6	6
159	Exact expressions for the mobility and electrophoretic mobility of a weakly charged sphere in a simple electrolyte. Europhysics Letters, 2013, 104, 68004.	2.0	6
160	Observation of DNA Knots Using Solid-State Nanopores. Biophysical Journal, 2015, 108, 166a.	0.5	6
161	The expected total curvature of random polygons. American Journal of Mathematics, 2015, 137, 411-438.	1.1	5
162	Nanorheology of Polymer Solutions: A Scaling Theory. Macromolecules, 2019, 52, 6927-6934.	4.8	5

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163	On the direct renormalization group procedure for a polymer chain. Physics Letters, Section A: General, Atomic and Solid State Physics, 1980, 78, 163-166.	2.1	4
164	LOW TEMPERATURE PHYSICS AT ROOM TEMPERATURE IN WATER: CHARGE INVERSION IN CHEMICAL AND BIOLOGICAL SYSTEMS. International Journal of High Speed Electronics and Systems, 2002, 12, 235-265.	0.7	4
165	Solvation versus freezing in a heteropolymer globule. Physical Review E, 2004, 70, 021802.	2.1	4
166	After-Action of the Ideas of I.M. Lifshitz in Polymer and Biopolymer Physics. , 0, , 189-210.		4
167	The confinement of an annealed branched polymer by a potential well. Low Temperature Physics, 2017, 43, 101-109.	0.6	4
168	Tethered tracer in a mixture of hot and cold Brownian particles: can activity pacify fluctuations?. Soft Matter, 2021, 17, 9528-9539.	2.7	4
169	Reply to Comment on "Modeling the conductance and DNA blockade of solid-state nanopores"™. Nanotechnology, 2012, 23, 088002.	2.6	3
170	Response to "Comment on "Molecular dynamics simulation study of nonconcatenated ring polymers in a melt. I. Statics" [J. Chem. Phys. 139, 217101 (2013)]. Journal of Chemical Physics, 2013, 139, 217102.	3.0	3
171	Network Formation by Cross-Hybridization of Complementary Strands to Grafted ssDNA. ACS Macro Letters, 2014, 3, 191-193.	4.8	3
172	Vingt ans aprÃs (Twenty years after). Physics of Life Reviews, 2016, 18, 139-143.	2.8	3
173	Ensemble View of RNAs and Proteins: Loops, Knots, Territories, and Evolution. Biophysical Journal, 2016, 110, 2289-2290.	0.5	3
174	Notes on the theory of adsorption of a single macromolecule. Polymer Science USSR, 1982, 24, 1344-1351.	0.2	2
175	Heteropolymer sequence design and preferential solvation of hydrophilic monomers: Application of random energy model. Physical Review E, 2007, 75, 041921.	2.1	2
176	Energy conservation versus conservation of energy. Physics of Life Reviews, 2011, 8, 293-295.	2.8	2
177	The tyranny of correspondence principle. Physics of Life Reviews, 2014, 11, 178-180.	2.8	2
178	Generalized Flory Theory for Rotational Symmetry Breaking of Complex Macromolecules. Physical Review Letters, 2019, 122, 128003.	7.8	2
179	Molecular dynamics of multichain Coulomb polymers and the effect of salt ions. , 1999, , .		2
180	Enumeration of the Hamiltonian walks on a cubic sublattice. Journal of Physics A, 1996, 29, 4753-4753.	1.6	2

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181	Ilya Mikhailovich Lifshits (on the 80th anniversary of his birth). <i>Physics-Uspexhi</i> , 1997, 40, 225-226.	2.2	1
182	What about a theory?. <i>Physics of Life Reviews</i> , 2012, 9, 172-173.	2.8	1
183	Two cases of reciprocal relations for electric and hydrodynamic currents: A rigid polymer in a nano-channel and a polyelectrolyte gel. <i>Journal of Chemical Physics</i> , 2013, 139, 024902.	3.0	1
184	On enumeration of Hilbert-like curves. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2015, 48, 195001.	2.1	1
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