

# Rudolf Podgornik

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4241748/publications.pdf>

Version: 2024-02-01

290  
papers

9,062  
citations

38660

50  
h-index

69108

77  
g-index

307  
all docs

307  
docs citations

307  
times ranked

5641  
citing authors

#	ARTICLE	IF	CITATIONS
1	Computational Design of Miniproteins as SARS-CoV-2 Therapeutic Inhibitors. <i>International Journal of Molecular Sciences</i> , 2022, 23, 838.	1.8	15
2	Curvature effects in charge-regulated lipid bilayers. <i>Soft Matter</i> , 2022, 18, 2597-2610.	1.2	8
3	Delta Variant with P681R Critical Mutation Revealed by Ultra-Large Atomic-Scale Ab Initio Simulation: Implications for the Fundamentals of Biomolecular Interactions. <i>Viruses</i> , 2022, 14, 465.	1.5	11
4	Mutations of Omicron Variant at the Interface of the Receptor Domain Motif and Human Angiotensin-Converting Enzyme-2. <i>International Journal of Molecular Sciences</i> , 2022, 23, 2870.	1.8	18
5	Field theory of structured liquid dielectrics. <i>Physical Review Research</i> , 2022, 4, .	1.3	6
6	Binding Interactions between Receptor-Binding Domain of Spike Protein and Human Angiotensin Converting Enzyme-2 in Omicron Variant. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 3915-3921.	2.1	49
7	On the nature of screening in Voorn-Overbeek type theories. <i>Journal of Chemical Physics</i> , 2022, 156, .	1.2	5
8	Continuum theories of structured dielectrics. <i>Europhysics Letters</i> , 2022, 139, 27002.	0.7	2
9	Ultra-large-scale ab initio quantum chemical computation of bio-molecular systems: The case of spike protein of SARS-CoV-2 virus. <i>Computational and Structural Biotechnology Journal</i> , 2021, 19, 1288-1301.	1.9	21
10	Electrostatic interactions between the SARS-CoV-2 virus and a charged electret fibre. <i>Soft Matter</i> , 2021, 17, 4296-4303.	1.2	33
11	Theory of Inhomogeneous Rod-like Coulomb Fluids. <i>Symmetry</i> , 2021, 13, 274.	1.1	3
12	Contribution of dipolar bridging to phospholipid membrane interactions: A mean-field analysis. <i>Journal of Chemical Physics</i> , 2021, 154, 224902.	1.2	3
13	Phase Separation of Polyelectrolytes: The Effect of Charge Regulation. <i>Journal of Physical Chemistry B</i> , 2021, 125, 7863-7870.	1.2	15
14	Key Interacting Residues between RBD of SARS-CoV-2 and ACE2 Receptor: Combination of Molecular Dynamics Simulation and Density Functional Calculation. <i>Journal of Chemical Information and Modeling</i> , 2021, 61, 4425-4441.	2.5	100
15	Qualitative chirality effects on the Casimir-Lifshitz torque with liquid crystals. <i>Physical Review Research</i> , 2021, 3, .	1.3	6
16	Selective Adsorption of Confined Polymers: Self-Consistent Field Theory Studies. <i>Macromolecules</i> , 2021, 54, 9602-9608.	2.2	4
17	Solvent Effect on the Structure and Properties of RGD Peptide (1FUW) at Body Temperature (310 K) Using Ab Initio Molecular Dynamics. <i>Polymers</i> , 2021, 13, 3434.	2.0	10
18	First-Principles Simulation of Dielectric Function in Biomolecules. <i>Materials</i> , 2021, 14, 5774.	1.3	15

#	ARTICLE	IF	CITATIONS
19	RNA Secondary Structures Regulate Adsorption of Fragments onto Flat Substrates. ACS Omega, 2021, 6, 32823-32831.	1.6	7
20	Site Correlations, Capacitance, and Polarizability From Protein Protonation Fluctuations. Journal of Physical Chemistry B, 2021, 125, 12902-12908.	1.2	4
21	Tuning the Dielectric Response of Water in Nanoconfinement through Surface Wettability. ACS Nano, 2021, 15, 20311-20318.	7.3	10
22	Critical behavior of charge-regulated macro-ions. Journal of Chemical Physics, 2020, 153, 024901.	1.2	15
23	Intra- and intermolecular atomic-scale interactions in the receptor binding domain of SARS-CoV-2 spike protein: implication for ACE2 receptor binding. Physical Chemistry Chemical Physics, 2020, 22, 18272-18283.	1.3	53
24	Interactions between zwitterionic membranes in complex electrolytes. Physical Review E, 2020, 102, 012806.	0.8	4
25	Thermodynamic Dissection of the Intercalation Binding Process of Doxorubicin to dsDNA with Implications of Ionic and Solvent Effects. Journal of Physical Chemistry B, 2020, 124, 7803-7818.	1.2	24
26	Ordering of adsorbed rigid rods mediated by the Boussinesq interaction on a soft substrate. Journal of Chemical Physics, 2020, 153, 144905.	1.2	5
27	Irreversible and reversible morphological changes in the $\phi 6$ capsid and similar viral shells: symmetry and micromechanics. Soft Matter, 2020, 16, 9383-9392.	1.2	2
28	Thermal Casimir interactions for higher derivative field Lagrangians: generalized Brazovskii models. Journal of Physics A: Mathematical and Theoretical, 2020, 53, 355005.	0.7	2
29	On virus growth and form. Physics Reports, 2020, 847, 1-102.	10.3	104
30	Surface alignment disorder and thermal Casimir forces in smectic-A liquid crystalline films. Journal of Physics Condensed Matter, 2020, 32, 325103.	0.7	0
31	Charge symmetry broken complex coacervation. Physical Review Research, 2020, 2, .	1.3	8
32	Spontaneous Domain Formation in Spherically Confined Elastic Filaments. Physical Review Letters, 2019, 123, 047801.	2.9	17
33	Charge regulation radically modifies electrostatics in membrane stacks. Physical Review E, 2019, 100, 050601.	0.8	14
34	Hidden symmetry of the anomalous bluetongue virus capsid and its role in the infection process. Soft Matter, 2019, 15, 7663-7671.	1.2	12
35	Like-charge polymer-membrane complexation mediated by multivalent cations: One-loop-dressed strong coupling theory. Journal of Chemical Physics, 2019, 151, 094902.	1.2	8
36	Molecular mechanism and binding free energy of doxorubicin intercalation in DNA. Physical Chemistry Chemical Physics, 2019, 21, 3877-3893.	1.3	70

#	ARTICLE	IF	CITATIONS
37	Densityâ€Nematic Coupling in Isotropic Linear Polymers: Acoustic and Osmotic Birefringence. <i>Advanced Theory and Simulations</i> , 2019, 2, 1900019.	1.3	2
38	Orientational transition and complexation of DNA with anionic membranes: Weak and intermediate electrostatic coupling. <i>Physical Review E</i> , 2019, 99, 062501.	0.8	5
39	Isotropic Polymers: Densityâ€Nematic Coupling in Isotropic Linear Polymers: Acoustic and Osmotic Birefringence (Adv. Theory Simul. 5/2019). <i>Advanced Theory and Simulations</i> , 2019, 2, 1970016.	1.3	0
40	Role of metallic core for the stability of virus-like particles in strongly coupled electrostatics. <i>Scientific Reports</i> , 2019, 9, 3884.	1.6	7
41	pH-induced morphological changes of proteinaceous viral shells. <i>Scientific Reports</i> , 2019, 9, 5341.	1.6	12
42	Casimir-like interactions and surface anchoring duality in bookshelf geometry of smectic-A liquid crystals. <i>Soft Matter</i> , 2019, 15, 2216-2222.	1.2	5
43	Path integrals for higher derivative actions. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2019, 52, 505003.	0.7	3
44	Charge regulation with fixed and mobile charged macromolecules. <i>Current Opinion in Electrochemistry</i> , 2019, 13, 70-77.	2.5	55
45	Compactness of viral genomes: effect of disperse and localized random mutations. <i>Journal of Physics Condensed Matter</i> , 2018, 30, 084006.	0.7	7
46	Spontaneous symmetry breaking of charge-regulated surfaces. <i>Soft Matter</i> , 2018, 14, 985-991.	1.2	25
47	Foreword. <i>Journal of Biological Physics</i> , 2018, 44, 117-117.	0.7	0
48	Open-Boundary Molecular Dynamics of a DNA Molecule in a Hybrid Explicit/Implicit Salt Solution. <i>Biophysical Journal</i> , 2018, 114, 2352-2362.	0.2	22
49	Varieties of charge distributions in coat proteins of ssRNA+â€viruses. <i>Journal of Physics Condensed Matter</i> , 2018, 30, 024001.	0.7	10
50	Charged nanorods at heterogeneously charged surfaces. <i>Journal of Chemical Physics</i> , 2018, 149, 134702.	1.2	5
51	General theory of charge regulation and surface differential capacitance. <i>Journal of Chemical Physics</i> , 2018, 149, 104701.	1.2	50
52	Mean-field theory of active electrolytes: Dynamic adsorption and overscreening. <i>Physical Review E</i> , 2018, 97, 052609.	0.8	8
53	Charge regulating macro-ions in salt solutions: screening properties and electrostatic interactions. <i>Soft Matter</i> , 2018, 14, 6058-6069.	1.2	30
54	Splayâ€density coupling in semiflexible main-chain nematic polymers with hairpins. <i>Soft Matter</i> , 2018, 14, 5898-5905.	1.2	8

#	ARTICLE	IF	CITATIONS
55	Anomalous multipole expansion: Charge regulation of patchy inhomogeneously charged spherical particles. <i>Journal of Chemical Physics</i> , 2018, 149, 163307.	1.2	17
56	Molecular Dynamics Simulation of High Density DNA Arrays. <i>Computation</i> , 2018, 6, 3.	1.0	12
57	Sticking and stacking: Persistent ordering of fragmented DNA analogs. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 8652-8654.	3.3	2
58	Hydrodynamic stress correlations in fluid films driven by stochastic surface forcing. <i>Physical Review Fluids</i> , 2018, 3, .	1.0	4
59	Interactions between charged particles with bathing multivalent counterions: experiments vs. dressed ion theory. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 10069-10080.	1.3	17
60	Impact of Hydrogen Bonding in the Binding Site between Capsid Protein and MS2 Bacteriophage ssRNA. <i>Journal of Physical Chemistry B</i> , 2017, 121, 6321-6330.	1.2	30
61	The Hydration Effect and Selectivity of Alkali Metal Ions on Poly(ethylene glycol) Models in Cyclic and Linear Topology. <i>Journal of Physical Chemistry A</i> , 2017, 121, 4721-4731.	1.1	32
62	pH Dependence of Charge Multipole Moments in Proteins. <i>Biophysical Journal</i> , 2017, 113, 1454-1465.	0.2	46
63	Order and interactions in DNA arrays: Multiscale molecular dynamics simulation. <i>Scientific Reports</i> , 2017, 7, 4775.	1.6	27
64	Role of Bending Energy and Knot Chirality in Knot Distribution and Their Effective Interaction along Stretched Semiflexible Polymers. <i>Polymers</i> , 2016, 8, 347.	2.0	13
65	van der Waals torque and force between dielectrically anisotropic layered media. <i>Journal of Chemical Physics</i> , 2016, 145, 044707.	1.2	13
66	Modulation of Elasticity and Interactions in Charged Lipid Multibilayers: Monovalent Salt Solutions. <i>Langmuir</i> , 2016, 32, 13546-13555.	1.6	17
67	Titrateable macroions in multivalent electrolyte solutions: Strong coupling dressed ion approach. <i>Journal of Chemical Physics</i> , 2016, 144, 214901.	1.2	10
68	Pseudo-Casimir stresses and elasticity of a confined elastomer film. <i>Soft Matter</i> , 2016, 12, 4384-4396.	1.2	2
69	DNA Equation of State: In Vitro vs In Viro. <i>Journal of Physical Chemistry B</i> , 2016, 120, 6051-6060.	1.2	17
70	From polymers to proteins: the effect of side chains and broken symmetry on the formation of secondary structures within a Wang-Landau approach. <i>Soft Matter</i> , 2016, 12, 4783-4793.	1.2	24
71	Effects of RNA branching on the electrostatic stabilization of viruses. <i>Physical Review E</i> , 2016, 94, 022408.	0.8	36
72	Size-dependent forced PEG partitioning into channels: VDAC, OmpC, and $\beta$ -hemolysin. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 9003-9008.	3.3	23

#	ARTICLE	IF	CITATIONS
73	X-ray characterization of mesophases of human telomeric G-quadruplexes and other DNA analogues. <i>Scientific Reports</i> , 2016, 6, 27079.	1.6	6
74	Implication of the solvent effect, metal ions and topology in the electronic structure and hydrogen bonding of human telomeric G-quadruplex DNA. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 21573-21585.	1.3	41
75	Generalized conservation law for main-chain polymer nematics. <i>Physical Review E</i> , 2016, 93, 052703.	0.8	2
76	Nonequilibrium Tuning of the Thermal Casimir Effect. <i>Physical Review Letters</i> , 2016, 116, 240602.	2.9	22
77	Effects of long-range interactions on curvature energies of viral shells. <i>Physical Review E</i> , 2016, 93, 052415.	0.8	10
78	Effect of magnesium ions on the structure of DNA thin films: an infrared spectroscopy study. <i>Nucleic Acids Research</i> , 2016, 44, 8456-8464.	6.5	38
79	Static polarizability effects on counterion distributions near charged dielectric surfaces: A coarse-grained Molecular Dynamics study employing the Drude model. <i>European Physical Journal: Special Topics</i> , 2016, 225, 1693-1705.	1.2	14
80	Chirality modifies the interaction between knots. <i>Europhysics Letters</i> , 2016, 114, 50007.	0.7	11
81	Van der Waals interactions between polymers with sequence-specific polarizabilities: Stiff polymers and Gaussian coils. <i>International Journal of Modern Physics A</i> , 2016, 31, 1641035.	0.5	2
82	Hofmeister Effects on RAFT-Like Domains. <i>Biophysical Journal</i> , 2016, 110, 583a.	0.2	0
83	Phase diagram of a bulk 1d lattice Coulomb gas. <i>Europhysics Letters</i> , 2016, 113, 18008.	0.7	9
84	Charge-Induced Fluctuation Forces in Graphitic Nanostructures. <i>Physical Review X</i> , 2016, 6, .	2.8	7
85	General theory of asymmetric steric interactions in electrostatic double layers. <i>Soft Matter</i> , 2016, 12, 1219-1229.	1.2	76
86	Hydrodynamic fluctuation-induced forces in confined fluids. <i>Soft Matter</i> , 2016, 12, 441-459.	1.2	7
87	Packing and Phase Transitions in DNA Duplexes and Tetraplexes: Similarities and Differences. <i>Biophysical Journal</i> , 2015, 108, 396a.	0.2	1
88	Phase diagram of the ground states of DNA condensates. <i>Physical Review E</i> , 2015, 92, 060701.	0.8	8
89	Antipolar and Anticlinic Mesophase Order in Chromatin Induced by Nucleosome Polarity and Chirality Correlations. <i>Physical Review Letters</i> , 2015, 114, 238102.	2.9	5
90	Effective interactions between fluid membranes. <i>Physical Review E</i> , 2015, 92, 022112.	0.8	14

#	ARTICLE	IF	CITATIONS
91	Ion-mediated interactions between net-neutral slabs: Weak and strong disorder effects. Journal of Chemical Physics, 2015, 143, 234701.	1.2	8
92	Solvent effects in the helix-coil transition model can explain the unusual biophysics of intrinsically disordered proteins. Journal of Chemical Physics, 2015, 143, 014102.	1.2	10
93	Membrane Domain Interactions by Monte Carlo Type Analysis of Osmotic Stress Data. Biophysical Journal, 2015, 108, 86a.	0.2	0
94	Repulsive Casimir interaction: Boyer oscillators at nanoscale. Europhysics Letters, 2015, 112, 41001.	0.7	3
95	Electronic Structure and Partial Charge Distribution of Doxorubicin in Different Molecular Environments. ChemPhysChem, 2015, 16, 1451-1460.	1.0	26
96	Correlation functions of main-chain polymer nematics constrained by tensorial and vectorial conservation laws. Journal of Chemical Physics, 2015, 143, 114902.	1.2	4
97	Out-of-equilibrium thermal Casimir effect between Brownian conducting plates. Europhysics Letters, 2015, 112, 20001.	0.7	12
98	Degradation science: Mesoscopic evolution and temporal analytics of photovoltaic energy materials. Current Opinion in Solid State and Materials Science, 2015, 19, 212-226.	5.6	51
99	Synonymous Mutations Reduce Genome Compactness in Icosahedral ssRNA Viruses. Biophysical Journal, 2015, 108, 194-202.	0.2	39
100	Bending Rigidities and Interdomain Forces in Membranes with Coexisting Lipid Domains. Biophysical Journal, 2015, 108, 2833-2842.	0.2	35
101	Strong coupling electrostatics for randomly charged surfaces: antifragility and effective interactions. Soft Matter, 2015, 11, 3441-3459.	1.2	9
102	Molecular recognition by van der Waals interaction between polymers with sequence-specific polarizabilities. Journal of Chemical Physics, 2015, 142, 214904.	1.2	19
103	Quantitative nanoscale electrostatics of viruses. Nanoscale, 2015, 7, 17289-17298.	2.8	45
104	Charge regulation in ionic solutions: Thermal fluctuations and Kirkwood-Schumaker interactions. Physical Review E, 2015, 91, 022715.	0.8	41
105	Optical properties and electronic transitions of DNA oligonucleotides as a function of composition and stacking sequence. Physical Chemistry Chemical Physics, 2015, 17, 4589-4599.	1.3	17
106	Continuity of states between the cholesteric $\hat{a}$ ' line hexatic transition and the condensation transition in DNA solutions. Scientific Reports, 2015, 4, 6877.	1.6	38
107	Photonics and plasmonics go viral: self-assembly of hierarchical metamaterials. Rendiconti Lincei, 2015, 26, 129-141.	1.0	12
108	van der Waals Interactions on the Mesoscale: Open-Science Implementation, Anisotropy, Retardation, and Solvent Effects. Langmuir, 2015, 31, 10145-10153.	1.6	17

#	ARTICLE	IF	CITATIONS
109	Disentangling the Effects of Shape and Dielectric Response in van der Waals Interactions between Anisotropic Bodies. <i>Journal of Physical Chemistry C</i> , 2015, 119, 19083-19094.	1.5	41
110	Hofmeister Effects in Monoclonal Antibody Solution Interactions. <i>Journal of Physical Chemistry B</i> , 2015, 119, 10375-10389.	1.2	19
111	Adaptive Resolution Simulation of a DNA Molecule in Salt Solution. <i>Journal of Chemical Theory and Computation</i> , 2015, 11, 5035-5044.	2.3	46
112	Determination of the second virial coefficient of bovine serum albumin under varying pH and ionic strength by composition-gradient multi-angle static light scattering. <i>Journal of Biological Physics</i> , 2015, 41, 85-97.	0.7	32
113	Dependence of the strength of van der Waals interactions on the details of the dielectric response variation. <i>Materials Research Society Symposia Proceedings</i> , 2014, 1648, 1.	0.1	0
114	From toroidal to rod-like condensates of semiflexible polymers. <i>Journal of Chemical Physics</i> , 2014, 140, 064902.	1.2	27
115	Relaxation of the thermal Casimir force between net neutral plates containing Brownian charges. <i>Physical Review E</i> , 2014, 89, 032117.	0.8	17
116	Asymmetric Coulomb fluids at randomly charged dielectric interfaces: Anti-fragility, overcharging and charge inversion. <i>Journal of Chemical Physics</i> , 2014, 141, 174704.	1.2	29
117	RNA topology remodels electrostatic stabilization of viruses. <i>Physical Review E</i> , 2014, 89, 032707.	0.8	50
118	Pseudo-Casimir interactions across nematic films with disordered anchoring axis. <i>Journal of Physics Condensed Matter</i> , 2014, 26, 075103.	0.7	10
119	Continuity of States in Cholesteric - Line Hexatic Transition in Univalent and Polyvalent Salt DNA Solutions. <i>Materials Research Society Symposia Proceedings</i> , 2014, 1619, 1.	0.1	2
120	Optical Properties and van der Waals-London Dispersion Interactions in Inorganic and Biomolecular Assemblies. <i>Materials Research Society Symposia Proceedings</i> , 2014, 1619, 1.	0.1	0
121	Dielectric response variation and the strength of van der Waals interactions. <i>Journal of Colloid and Interface Science</i> , 2014, 417, 278-284.	5.0	9
122	Fluctuation-induced interactions in nematics with disordered anchoring energy. <i>Journal of Physics Condensed Matter</i> , 2014, 26, 505101.	0.7	2
123	The Role of Solution Conditions in the Bacteriophage PP7 Capsid Charge Regulation. <i>Biophysical Journal</i> , 2014, 107, 1970-1979.	0.2	79
124	Field-theoretic description of charge regulation interaction. <i>European Physical Journal E</i> , 2014, 37, 5.	0.7	32
125	Unified description of solvent effects in the helix-coil transition. <i>Physical Review E</i> , 2014, 89, 022723.	0.8	17
126	Editorial: Prof. Wokyung Sung and pathways in biological physics. <i>Journal of Biological Physics</i> , 2014, 40, 311-312.	0.7	0



#	ARTICLE	IF	CITATIONS
127	Electronic Structure, Dielectric Response and Surface Charge Distribution of RGD (1FLV) Peptide. Scientific Reports, 2014, 4, 5605.	1.6	33
128	Coulomb Interactions between Disordered Charge Distributions. , 2014, , 367-380.		0
129	Special issue on physical virology. Journal of Biological Physics, 2013, 39, 161-162.	0.7	0
130	Testing Theories of DNA Interaction and Condensation. Biophysical Journal, 2013, 104, 261a.	0.2	0
131	Tensorial conservation law for nematic polymers. Physical Review E, 2013, 88, 052603.	0.8	10
132	Helix-coil transition in terms of Potts-like spins. European Physical Journal E, 2013, 36, 46.	0.7	6
133	Statistical analysis of sizes and shapes of virus capsids and their resulting elastic properties. Journal of Biological Physics, 2013, 39, 215-228.	0.7	35
134	Polymers Pushing Polymers: Polymer Mixtures in Thermodynamic Equilibrium with a Pore. Biophysical Journal, 2013, 104, 527a.	0.2	0
135	Chirality-dependent properties of carbon nanotubes: electronic structure, optical dispersion properties, Hamaker coefficients and van der Waals–London dispersion interactions. RSC Advances, 2013, 3, 823-842.	1.7	36
136	Electrostatic stability and encapsidation of charged nano-droplets. Soft Matter, 2013, 9, 11357.	1.2	6
137	Symmetry effects in electrostatic interactions between two arbitrarily charged spherical shells in the Debye-Hückel approximation. Journal of Chemical Physics, 2013, 138, 074902.	1.2	34
138	Perspective: Coulomb fluids—Weak coupling, strong coupling, in between and beyond. Journal of Chemical Physics, 2013, 139, 150901.	1.2	145
139	Multivalent ion effects on electrostatic stability of virus-like nano-shells. Journal of Chemical Physics, 2013, 139, 154709.	1.2	21
140	Interaction of a point charge with the surface of a uniaxial dielectric. Europhysics Letters, 2013, 102, 24001.	0.7	3
141	Fluctuation of thermal van der Waals forces due to dipole fluctuations. Physical Review A, 2013, 87, .	1.0	8
142	Overscreening in a 1D lattice Coulomb gas model of ionic liquids. Europhysics Letters, 2012, 97, 28004.	0.7	22
143	The one-dimensional Coulomb lattice fluid capacitor. Journal of Chemical Physics, 2012, 137, 064901.	1.2	24
144	Attraction between neutral dielectrics mediated by multivalent ions in an asymmetric ionic fluid. Journal of Chemical Physics, 2012, 137, 174704.	1.2	29

#	ARTICLE	IF	CITATIONS
145	Electrostatic interactions mediated by polarizable counterions: Weak and strong coupling limits. <i>Journal of Chemical Physics</i> , 2012, 137, 174903.	1.2	26
146	Electromagnetic fluctuation-induced interactions in randomly charged slabs. <i>Journal of Chemical Physics</i> , 2012, 137, 114704.	1.2	12
147	Wrapping transition and wrapping-mediated interactions for discrete binding along an elastic filament: An exact solution. <i>Journal of Chemical Physics</i> , 2012, 137, 144904.	1.2	7
148	How simple can a model of an empty viral capsid be? Charge distributions in viral capsids. <i>Journal of Biological Physics</i> , 2012, 38, 657-671.	0.7	53
149	Energies and pressures in viruses: contribution of nonspecific electrostatic interactions. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 3746-3765.	1.3	120
150	Polymers Pushing Polymers: Polymer Mixtures in Thermodynamic Equilibrium with a Pore. <i>Macromolecules</i> , 2012, 45, 8921-8928.	2.2	10
151	Colloidal interactions between monoclonal antibodies in aqueous solutions. <i>Journal of Colloid and Interface Science</i> , 2012, 384, 207-216.	5.0	61
152	Out-of-equilibrium relaxation of the thermal Casimir effect in a model polarizable material. <i>Physical Review E</i> , 2012, 85, 031108.	0.8	13
153	Osmotic Pressure Induced Coupling between Cooperativity and Stability of a Helix-Coil Transition. <i>Physical Review Letters</i> , 2012, 109, 068101.	2.9	23
154	Ordering of anisotropic polarizable polymer chains on the full many-body level. <i>Journal of Chemical Physics</i> , 2012, 136, 154905.	1.2	15
155	Confined chiral polymer nematics: Ordering and spontaneous condensation. <i>Europhysics Letters</i> , 2012, 100, 66005.	0.7	9
156	Dynamics and structure of biopolyelectrolytes in repulsion regime characterized by dielectric spectroscopy. <i>Physica B: Condensed Matter</i> , 2012, 407, 1958-1963.	1.3	7
157	Sample-to-sample torque fluctuations in a system of coaxial randomly charged surfaces. <i>European Physical Journal E</i> , 2012, 35, 1-7.	0.7	15
158	Euler strut: a mechanical analogy for dynamics in the vicinity of a critical point. <i>European Journal of Physics</i> , 2011, 32, 1007-1018.	0.3	9
159	Protein-DNA Interactions Determine the Shapes of DNA Toroids Condensed in Virus Capsids. <i>Biophysical Journal</i> , 2011, 100, 2209-2216.	0.2	47
160	Dielectric decrement as a source of ion-specific effects. <i>Journal of Chemical Physics</i> , 2011, 134, 074705.	1.2	111
161	Ion-specific hydration effects: Extending the Poisson-Boltzmann theory. <i>Current Opinion in Colloid and Interface Science</i> , 2011, 16, 542-550.	3.4	133
162	Sample-to-sample fluctuations of electrostatic forces generated by quenched charge disorder. <i>Physical Review E</i> , 2011, 83, 011102.	0.8	15

#	ARTICLE	IF	CITATIONS
163	Electrostatic self-energy of a partially formed spherical shell in salt solution: Application to stability of tethered and fluid shells as models for viruses and vesicles. <i>Physical Review E</i> , 2011, 83, 041916.	0.8	7
164	Dressed counterions: Polyvalent and monovalent ions at charged dielectric interfaces. <i>Physical Review E</i> , 2011, 84, 011502.	0.8	41
165	Many-body effects in the van der Waals-Casimir interaction between graphene layers. <i>Physical Review B</i> , 2011, 84, .	1.1	82
166	Viscous compressible hydrodynamics at planes, spheres and cylinders with finite surface slip. <i>European Physical Journal E</i> , 2010, 32, 147-164.	0.7	21
167	Optically anisotropic infinite cylinder above an optically anisotropic half space: Dispersion interaction of a single-walled carbon nanotube with a substrate. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2010, 28, C4A17-C4A24.	0.6	8
168	Thermodynamics of nanospheres encapsulated in virus capsids. <i>Physical Review E</i> , 2010, 81, 051919.	0.8	39
169	Effects of dielectric disorder on van der Waals interactions in slab geometries. <i>Physical Review E</i> , 2010, 81, 051117.	0.8	20
170	Exotic Electrostatics: Unusual Features of Electrostatic Interactions between Macroions. <i>Series in Soft Condensed Matter</i> , 2010, , 265-295.	0.1	12
171	Counterion-mediated weak and strong coupling electrostatic interaction between like-charged cylindrical dielectrics. <i>Journal of Chemical Physics</i> , 2010, 132, 224703.	1.2	38
172	Nonmonotonic fluctuation-induced interactions between dielectric slabs carrying charge disorder. <i>Journal of Chemical Physics</i> , 2010, 133, 174702.	1.2	26
173	Polyelectrolyte-mediated bridging interactions: columnar macromolecular phases. <i>Journal of Physics Condensed Matter</i> , 2010, 22, 414102.	0.7	10
174	Molecules Pushing Molecules: Dynamic Consequences of Crowding. <i>Biophysical Journal</i> , 2010, 98, 274a.	0.2	0
175	Long range interactions in nanoscale science. <i>Reviews of Modern Physics</i> , 2010, 82, 1887-1944.	16.4	359
176	Fluctuation-Induced Interaction between Randomly Charged Dielectrics. <i>Physical Review Letters</i> , 2010, 104, 060601.	2.9	48
177	Confined nematic polymers: Order and packing in a nematic drop. <i>Physical Review E</i> , 2010, 82, 011708.	0.8	19
178	Structure and dynamics of hyaluronic acid semidilute solutions: A dielectric spectroscopy study. <i>Physical Review E</i> , 2010, 82, 011922.	0.8	20
179	Dressed counterions: Strong electrostatic coupling in the presence of salt. <i>Journal of Chemical Physics</i> , 2010, 132, 124701.	1.2	50
180	Stability of elastic icosahedral shells under uniform external pressure: Application to viruses under osmotic pressure. <i>Physical Review E</i> , 2009, 79, 011919.	0.8	32

#	ARTICLE	IF	CITATIONS
181	Thermal Casimir effect between random layered dielectrics. <i>Physical Review A</i> , 2009, 79, .	1.0	17
182	Dispersion interactions in stratified anisotropic and optically active media at all separations. <i>Physical Review B</i> , 2009, 80, .	1.1	10
183	Dispersion interactions between optically anisotropic cylinders at all separations: Retardation effects for insulating and semiconducting single-wall carbon nanotubes. <i>Physical Review B</i> , 2009, 80, .	1.1	28
184	The role of multipoles in counterion-mediated interactions between charged surfaces: strong and weak coupling. <i>Journal of Physics Condensed Matter</i> , 2009, 21, 424103.	0.7	41
185	One-dimensional counterion gas between charged surfaces: Exact results compared with weak- and strong-coupling analyses. <i>Journal of Chemical Physics</i> , 2009, 130, 094504.	1.2	30
186	A Phenomenological One-Parameter Equation of State for Osmotic Pressures of PEG and Other Neutral Flexible Polymers in Good Solvents. <i>Journal of Physical Chemistry B</i> , 2009, 113, 3709-3714.	1.2	63
187	Ions in Mixed Dielectric Solvents: Density Profiles and Osmotic Pressure between Charged Interfaces. <i>Journal of Physical Chemistry B</i> , 2009, 113, 6001-6011.	1.2	62
188	Beyond standard Poisson-Boltzmann theory: ion-specific interactions in aqueous solutions. <i>Journal of Physics Condensed Matter</i> , 2009, 21, 424106.	0.7	98
189	Counterion-mediated electrostatic interactions between helical molecules. <i>Soft Matter</i> , 2009, 5, 868-877.	1.2	46
190	Partially Annealed Disorder and Collapse of Like-Charged Macroions. <i>Journal of Statistical Physics</i> , 2008, 133, 659-681.	0.5	29
191	Packing nanomechanics of viral genomes. <i>European Physical Journal E</i> , 2008, 26, 317-25.	0.7	21
192	Spectral mixing formulations for van der Waals-London dispersion interactions between multicomponent carbon nanotubes. <i>Journal of Applied Physics</i> , 2008, 104, 53513.	1.1	12
193	Ionic cloud distribution close to a charged surface in the presence of salt. <i>Europhysics Letters</i> , 2008, 82, 48001.	0.7	18
194	Short-fragment Na-DNA dilute aqueous solutions: Fundamental length scales and screening. <i>Europhysics Letters</i> , 2008, 81, 68003.	0.7	15
195	Nonspecific interactions in spontaneous assembly of empty versus functional single-stranded RNA viruses. <i>Physical Review E</i> , 2008, 78, 051915.	0.8	71
196	Weak- and strong-coupling electrostatic interactions between asymmetrically charged planar surfaces. <i>Physical Review E</i> , 2008, 78, 061105.	0.8	42
197	Strong-Coupling Electrostatics in the Presence of Dielectric Inhomogeneities. <i>Physical Review Letters</i> , 2008, 101, 188101.	2.9	66
198	Confined nanorods: Jamming due to helical buckling. <i>Physical Review E</i> , 2008, 77, 031808.	0.8	11

#	ARTICLE	IF	CITATIONS
199	Self-consistent inhomogeneous dielectric response profiles from a nonlocal continuous Lifshitz formulation of van der Waals interactions. <i>Journal of Physics: Conference Series</i> , 2008, 94, 012003.	0.3	2
200	van der Waals–London dispersion interactions for optically anisotropic cylinders: Metallic and semiconducting single-wall carbon nanotubes. <i>Physical Review B</i> , 2007, 76, .	1.1	59
201	Role of electrostatic interactions in the assembly of empty spherical viral capsids. <i>Physical Review E</i> , 2007, 76, 061906.	0.8	76
202	Comparison of density functional theory and field approaches to van der Waals interactions in plan parallel geometry. <i>Physical Review B</i> , 2007, 75, .	1.1	6
203	Screwlike order, macroscopic chirality, and elastic distortions in high-density DNA mesophases. <i>Physical Review E</i> , 2007, 75, 030901.	0.8	18
204	Polarity and Chirality in NCP Mesophases and Chromatin Fibers. <i>Molecular Crystals and Liquid Crystals</i> , 2007, 478, 83/[839]-97/[853].	0.4	1
205	Entropy-Driven Softening of Fluid Lipid Bilayers by Alamethicin. <i>Langmuir</i> , 2007, 23, 11705-11711.	1.6	70
206	Dielectric relaxation of DNA aqueous solutions. <i>Physical Review E</i> , 2007, 75, 021905.	0.8	59
207	Electrostatic image effects for counterions between charged planar walls. <i>European Physical Journal E</i> , 2007, 23, 265-274.	0.7	45
208	The boundary element approach to Van der Waals interactions. <i>European Physical Journal E</i> , 2007, 23, 275-279.	0.7	9
209	Reducing the noise emitted from a domestic clothes-drying machine. <i>Noise Control Engineering Journal</i> , 2006, 54, 137.	0.2	3
210	DNA off the Hooke. <i>Nature Nanotechnology</i> , 2006, 1, 100-101.	15.6	10
211	Polyelectrolyte bridging interactions between charged macromolecules. <i>Current Opinion in Colloid and Interface Science</i> , 2006, 11, 273-279.	3.4	76
212	On the connected-charges Thomson problem. <i>Europhysics Letters</i> , 2006, 75, 631-637.	0.7	14
213	Electrostatic disorder-induced interactions in inhomogeneous dielectrics. <i>Europhysics Letters</i> , 2006, 74, 712-718.	0.7	31
214	Nonadditivity in van der Waals interactions within multilayers. <i>Journal of Chemical Physics</i> , 2006, 124, 044709.	1.2	51
215	Ion induced lamellar-lamellar phase transition in charged surfactant systems. <i>Journal of Chemical Physics</i> , 2006, 124, 224702.	1.2	54
216	Screening and Fundamental Length Scales in Semidilute Na-DNA Aqueous Solutions. <i>Physical Review Letters</i> , 2006, 97, 098303.	2.9	23

#	ARTICLE	IF	CITATIONS
217	Graded interface models for more accurate determination of van der Waals's London dispersion interactions across grain boundaries. <i>Physical Review B</i> , 2006, 74, .	1.1	20
218	Interactions and conformational fluctuations in DNA arrays. <i>Scottish Graduate Series</i> , 2006, , 181-199.	0.1	1
219	Quenched charge disorder and Coulomb interactions. <i>Physical Review E</i> , 2005, 72, 041402.	0.8	40
220	Long-range many-body polyelectrolyte bridging interactions. <i>Journal of Chemical Physics</i> , 2005, 122, 204902.	1.2	14
221	Electrical conduction in macroscopically oriented deoxyribonucleic and hyaluronic acid samples. <i>Physical Review E</i> , 2005, 71, 041901.	0.8	22
222	Correlated and decorrelated positional and orientational order in the nucleosomal core particle mesophases. <i>Europhysics Letters</i> , 2005, 69, 1017-1023.	0.7	9
223	Electrostatic contribution to the persistence length of a semiflexible dipolar chain. <i>Physical Review E</i> , 2004, 70, 031801.	0.8	13
224	Mkrtchian et al. Reply. <i>Physical Review Letters</i> , 2004, 93, .	2.9	4
225	Van der Waals interactions in a dielectric with continuously varying dielectric function. <i>Journal of Chemical Physics</i> , 2004, 121, 7467-7473.	1.2	25
226	Polyelectrolyte-mediated bridging interactions. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2004, 42, 3539-3556.	2.4	46
227	van der Waals interactions across stratified media. <i>Journal of Chemical Physics</i> , 2004, 120, 3401-3405.	1.2	14
228	Universal Thermal Radiation Drag on Neutral Objects. <i>Physical Review Letters</i> , 2003, 91, 220801.	2.9	64
229	Osmotic Properties of Poly(Ethylene Glycols): Quantitative Features of Brush and Bulk Scaling Laws. <i>Biophysical Journal</i> , 2003, 84, 350-355.	0.2	108
230	Two-body polyelectrolyte-mediated bridging interactions. <i>Journal of Chemical Physics</i> , 2003, 118, 11286-11296.	1.2	43
231	Electrical Conduction in Native Deoxyribonucleic Acid: Hole Hopping Transfer Mechanism?. <i>Physical Review Letters</i> , 2003, 90, 098101.	2.9	63
232	On a reformulation of the theory of Lifshitz's van der Waals interactions in multilayered systems. <i>Journal of Chemical Physics</i> , 2003, 119, 1070-1077.	1.2	26
233	Membrane pinning on a disordered substrate. <i>Europhysics Letters</i> , 2003, 62, 124-130.	0.7	1
234	Osmotic properties of DNA: Critical evaluation of counterion condensation theory. <i>Physical Review E</i> , 2001, 64, 021907.	0.8	77

#	ARTICLE	IF	CITATIONS
235	Orientational Fluctuations and Pseudo-Casimir Force in Confined Nematic Liquid Crystals. <i>Molecular Crystals and Liquid Crystals</i> , 2001, 358, 83-95.	0.3	2
236	Casimir and pseudo-Casimir interactions in confined polyelectrolytes. <i>Journal of Chemical Physics</i> , 2001, 115, 1951-1959.	1.2	5
237	Wormlike chains in the large-dlimit. <i>Journal of Chemical Physics</i> , 2001, 114, 8637-8648.	1.2	20
238	Pseudo-Casimir force in confined nematic polymers. <i>Europhysics Letters</i> , 2001, 53, 735-741.	0.7	9
239	Positional, Reorientational, and Bond Orientational Order in DNA Mesophases. <i>Physical Review Letters</i> , 2001, 87, 218101.	2.9	36
240	Interactions and Conformational Fluctuations in Macromolecular Arrays. , 2001, , 409-440.		0
241	Fluctuation-induced interaction in a hybrid nematic liquid-crystal cell. <i>Journal of Physics Condensed Matter</i> , 2000, 12, A221-A226.	0.7	5
242	Elastic moduli renormalization in self-interacting stretchable polyelectrolytes. <i>Journal of Chemical Physics</i> , 2000, 113, 9343-9350.	1.2	66
243	Pseudo-Casimir effect in nematic liquid crystals in frustrating geometries. <i>Physical Review E</i> , 2000, 61, 5361-5371.	0.8	34
244	Refusing to Twist: Demonstration of a Line Hexatic Phase in DNA Liquid Crystals. <i>Physical Review Letters</i> , 2000, 84, 3105-3108.	2.9	78
245	Pseudo-Casimir Structural Force Drives Spinodal Dewetting in Nematic Liquid Crystals. <i>Physical Review Letters</i> , 2000, 84, 1228-1231.	2.9	60
246	Equation of state for polymer liquid crystals: Theory and experiment. <i>Physical Review E</i> , 1999, 59, 999-1008.	0.8	104
247	Buckling, fluctuations, and collapse in semiflexible polyelectrolytes. <i>Physical Review E</i> , 1999, 60, 1956-1966.	0.8	43
248	Wetting-Driven Casimir Force in Nematic Liquid Crystals. <i>Physical Review Letters</i> , 1999, 82, 1189-1192.	2.9	33
249	Casimir force in liquid crystals close to the nematicâ€“isotropic phase transition. <i>Chemical Physics Letters</i> , 1998, 295, 99-104.	1.2	43
250	Title is missing!. <i>Journal of Statistical Physics</i> , 1998, 90, 1493-1495.	0.5	0
251	Colloidal DNA. <i>Current Opinion in Colloid and Interface Science</i> , 1998, 3, 534-539.	3.4	53
252	DNA-DNA interactions. <i>Current Opinion in Structural Biology</i> , 1998, 8, 309-313.	2.6	134

#	ARTICLE	IF	CITATIONS
253	Charge-Fluctuation Forces between Rodlike Polyelectrolytes: Pairwise Summability Reexamined. <i>Physical Review Letters</i> , 1998, 80, 1560-1563.	2.9	134
254	Coupling between Smectic and Twist Modes in Polymer Intercalated Smectics. <i>Physical Review Letters</i> , 1998, 80, 305-308.	2.9	3
255	Equation of State for DNA Liquid Crystals: Fluctuation Enhanced Electrostatic Double Layer Repulsion. <i>Physical Review Letters</i> , 1997, 78, 895-898.	2.9	127
256	Supporting Membrane Shape Instability in the Presence of Strongly Adsorbed Flexible Polymers. <i>Langmuir</i> , 1997, 13, 4791-4794.	1.6	5
257	The Structure of DNA-Liposome Complexes. <i>Journal of the American Chemical Society</i> , 1997, 119, 832-833.	6.6	378
258	On a Possible Microscopic Mechanism Underlying the Vapor Pressure Paradox. <i>Biophysical Journal</i> , 1997, 72, 942-952.	0.2	53
259	Bond orientational order, molecular motion, and free energy of high-density DNA mesophases. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1996, 93, 4261-4266.	3.3	98
260	Principles of condensed matter physics. <i>Journal of Statistical Physics</i> , 1996, 83, 1263-1265.	0.5	5
261	Isotropic-nematic transition of surface embedded polymers and the associated tubulization transition of the embedding surface. <i>Physical Review E</i> , 1996, 54, 5268-5277.	0.8	6
262	Watching molecules crowd: DNA double helices under osmotic stress. <i>Biophysical Chemistry</i> , 1995, 57, 111-121.	1.5	52
263	Statistical thermodynamics of surfaces, interfaces, and membranes. <i>Journal of Statistical Physics</i> , 1995, 78, 1175-1177.	0.5	10
264	Statistical physics of macromolecules. <i>Journal of Statistical Physics</i> , 1995, 78, 1179-1180.	0.5	1
265	Surface polymer network model and effective membrane curvature elasticity. <i>Physical Review E</i> , 1995, 51, 3368-3375.	0.8	9
266	Orientational ordering of polymers on a fluctuating flexible surface. <i>Physical Review E</i> , 1995, 52, 5170-5177.	0.8	10
267	Parametrization invariance and shape equations of elastic axisymmetric vesicles. <i>Physical Review E</i> , 1995, 51, 544-547.	0.8	15
268	Colloidal interactions mediated via polyelectrolytes. <i>Journal of Chemical Physics</i> , 1995, 102, 9423-9434.	1.2	62
269	Forces between CTAB-Covered Glass Surfaces Interpreted as an Interaction-Driven Surface Instability. <i>The Journal of Physical Chemistry</i> , 1995, 99, 9491-9496.	2.9	52
270	Parametrization of direct and soft steric-undulatory forces between DNA double helical polyelectrolytes in solutions of several different anions and cations. <i>Biophysical Journal</i> , 1994, 66, 962-971.	0.2	145



#	ARTICLE	IF	CITATIONS
271	Contact theorem for confined polymeric chains. <i>The Journal of Physical Chemistry</i> , 1993, 97, 3927-3929.	2.9	7
272	Stretching of Polyelectrolyte Chains by Oppositely Charged Aggregates. <i>Europhysics Letters</i> , 1993, 24, 501-506.	0.7	27
273	Polymer-Boundary Surface Interactions and Bilayer Curvature Elasticity. <i>Europhysics Letters</i> , 1993, 21, 245-251.	0.7	23
274	A variational approach to charged polymer chains: Polymer mediated interactions. <i>Journal of Chemical Physics</i> , 1993, 99, 7221-7231.	1.2	17
275	Self-consistent-field theory for confined polyelectrolyte chains. <i>The Journal of Physical Chemistry</i> , 1992, 96, 884-896.	2.9	65
276	Thermal-mechanical fluctuations of fluid membranes in confined geometries: the case of soft confinement. <i>Langmuir</i> , 1992, 8, 557-562.	1.6	122
277	Electrostatic forces between charged surfaces in the presence of a polyelectrolyte chain. <i>The Journal of Physical Chemistry</i> , 1991, 95, 5249-5255.	2.9	41
278	An electrostatic-surface stability interpretation of the "hydrophobic" force inferred to occur between mica plates in solutions of soluble surfactants. <i>Chemical Physics</i> , 1991, 154, 477-483.	0.9	47
279	Forces and conformation of a polyelectrolyte chain between two charged walls. <i>Chemical Physics Letters</i> , 1990, 174, 191-198.	1.2	10
280	Molecular fluctuations in the packing of polymeric liquid crystals. <i>Macromolecules</i> , 1990, 23, 2265-2269.	2.2	48
281	An analytic treatment of the first-order correction to the Poisson-Boltzmann interaction free energy in the case of counterion-only Coulomb fluid. <i>Journal of Physics A</i> , 1990, 23, 275-284.	1.6	50
282	Electrostatic correlation forces between surfaces with surface specific ionic interactions. <i>Journal of Chemical Physics</i> , 1989, 91, 5840-5849.	1.2	151
283	On the connection between surface ordering transitions and hydration forces between two apposed surfaces. <i>Chemical Physics Letters</i> , 1989, 163, 531-536.	1.2	9
284	Forces between surfaces with surface-specific interactions in a dilute electrolyte. <i>Chemical Physics Letters</i> , 1989, 156, 71-75.	1.2	19
285	The action of interhelical forces on the organization of DNA double helices: fluctuation-enhanced decay of electrostatic double-layer and hydration forces. <i>Macromolecules</i> , 1989, 22, 1780-1786.	2.2	146
286	Solvent structure effects in dipole correlation forces. <i>Chemical Physics Letters</i> , 1988, 144, 503-508.	1.2	10
287	Inhomogeneous coulomb fluid. A functional integral approach. <i>Journal of the Chemical Society, Faraday Transactions 2</i> , 1988, 84, 611-631.	1.1	93
288	Solvent structure effects in the macroscopic theory of van der Waals forces. <i>Journal of Chemical Physics</i> , 1987, 87, 5957-5967.	1.2	35

#	ARTICLE	IF	CITATIONS
289	The free energy,enthalpy and entropy of hydration of phospholipid bilayer membranes and their difference on the interfacial separation. Chemical Physics Letters, 1982, 91, 193-196.	1.2	45
290	The undulations of hydrated phospholipid multilayers may be due to water-mediated bilayer-bilayer interactions. Chemical Physics Letters, 1981, 84, 209-212.	1.2	18