

William M Gelbart

List of Publications by Year in descending order

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47
papers

5,713
citations

94433

37
h-index

223800

46
g-index

47
all docs

47
docs citations

47
times ranked

4217
citing authors

#	ARTICLE	IF	CITATIONS
1	How and why RNA genomes are (partially) ordered in viral capsids. <i>Current Opinion in Virology</i> , 2022, 52, 203-210.	5.4	2
2	RNA Homopolymers Form Higher-Curvature Virus-like Particles Than Do Normal-Composition RNAs. <i>Biophysical Journal</i> , 2019, 117, 1331-1341.	0.5	7
3	The Effect of RNA Secondary Structure on the Self-Assembly of Viral Capsids. <i>Biophysical Journal</i> , 2017, 113, 339-347.	0.5	30
4	Physical Principles in the Self-Assembly of a Simple Spherical Virus. <i>Accounts of Chemical Research</i> , 2016, 49, 48-55.	15.6	85
5	Controlling the extent of viral genome release by a combination of osmotic stress and polyvalent cations. <i>Physical Review E</i> , 2015, 92, 022708.	2.1	4
6	Bacteriophage P22 ejects all of its internal proteins before its genome. <i>Virology</i> , 2015, 485, 128-134.	2.4	34
7	Reconstituted plant viral capsids can release genes to mammalian cells. <i>Virology</i> , 2013, 441, 12-17.	2.4	74
8	<i>In Vitro</i> Quantification of the Relative Packaging Efficiencies of Single-Stranded RNA Molecules by Viral Capsid Protein. <i>Journal of Virology</i> , 2012, 86, 12271-12282.	3.4	60
9	Self-Assembly of Viral Capsid Protein and RNA Molecules of Different Sizes: Requirement for a Specific High Protein/RNA Mass Ratio. <i>Journal of Virology</i> , 2012, 86, 3318-3326.	3.4	151
10	Exploiting Fluorescent Polymers To Probe the Self-Assembly of Virus-like Particles. <i>Journal of Physical Chemistry B</i> , 2011, 115, 2386-2391.	2.6	68
11	Salt-Dependent DNA-DNA Spacings in Intact Bacteriophage λ . Reflect Relative Importance of DNA Self-Repulsion and Bending Energies. <i>Physical Review Letters</i> , 2011, 106, 028102.	7.8	70
12	Pressurized Viruses. <i>Science</i> , 2009, 323, 1682-1683.	12.6	89
13	Physical Chemistry of DNA Viruses. <i>Annual Review of Physical Chemistry</i> , 2009, 60, 367-383.	10.8	78
14	The Force Acting on a Polymer Partially Confined in a Tube. <i>Journal of Physical Chemistry B</i> , 2009, 113, 3873-3879.	2.6	13
15	Curvature Dependence of Viral Protein Structures on Encapsidated Nanoemulsion Droplets. <i>ACS Nano</i> , 2008, 2, 281-286.	14.6	70
16	Effects of Salt Concentrations and Bending Energy on the Extent of Ejection of Phage Genomes. <i>Biophysical Journal</i> , 2008, 94, 1110-1120.	0.5	84
17	Packaging of a Polymer by a Viral Capsid: The Interplay between Polymer Length and Capsid Size. <i>Biophysical Journal</i> , 2008, 94, 1428-1436.	0.5	192
18	The physics of phages. <i>Physics Today</i> , 2008, 61, 42-47.	0.3	27

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19	Dynamics of DNA Ejection from Bacteriophage. <i>Biophysical Journal</i> , 2006, 91, 411-420.	0.5	76
20	The effect of genome length on ejection forces in bacteriophage lambda. <i>Virology</i> , 2006, 348, 430-436.	2.4	115
21	Elasticity theory and shape transitions of viral shells. <i>Physical Review E</i> , 2005, 72, 051923.	2.1	108
22	Measurements of DNA Lengths Remaining in a Viral Capsid after Osmotically Suppressed Partial Ejection. <i>Biophysical Journal</i> , 2005, 88, 751-756.	0.5	62
23	Effect of Mono- and Multivalent Salts on Angle-Dependent Attractions Between Charged Rods. <i>Physical Review Letters</i> , 2004, 93, 128101.	7.8	72
24	From The Cover: Origin of icosahedral symmetry in viruses. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 15556-15560.	7.1	320
25	Measuring the Force Ejecting DNA from Phage. <i>Journal of Physical Chemistry B</i> , 2004, 108, 6838-6843.	2.6	76
26	Osmotic Shock and the Strength of Viral Capsids. <i>Biophysical Journal</i> , 2003, 85, 70-74.	0.5	94
27	Forces and Pressures in DNA Packaging and Release from Viral Capsids. <i>Biophysical Journal</i> , 2003, 84, 1616-1627.	0.5	238
28	Viral Self-Assembly as a Thermodynamic Process. <i>Physical Review Letters</i> , 2003, 90, 248101.	7.8	176
29	Osmotic pressure inhibition of DNA ejection from phage. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 9292-9295.	7.1	296
30	Association of two semiflexible polyelectrolytes by interchain linkers: Theory and simulations. <i>Journal of Chemical Physics</i> , 2002, 117, 462-480.	3.0	43
31	Elastically Driven Linker Aggregation between Two Semiflexible Polyelectrolytes. <i>Physical Review Letters</i> , 2001, 86, 2182-2185.	7.8	34
32	DNA Condensation and Complexation. , 2001, , 53-86.		0
33	Microphase separation versus the vapor-liquid transition in systems of spherical particles. <i>Journal of Chemical Physics</i> , 1999, 110, 4582-4588.	3.0	127
34	Spontaneous patterning of quantum dots at the air-water interface. <i>Physical Review E</i> , 1999, 59, R6255-R6258.	2.1	171
35	Interplay between Hole Instability and Nanoparticle Array Formation in Ultrathin Liquid Films. <i>Langmuir</i> , 1998, 14, 3418-3424.	3.5	193
36	Structure, Stability, and Thermodynamics of Lamellar DNA-Lipid Complexes. <i>Biophysical Journal</i> , 1998, 75, 159-173.	0.5	224

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37	Topological Defects and the Optimum Size of DNA Condensates. <i>Biophysical Journal</i> , 1998, 75, 714-720.	0.5	81
38	Counterion-Induced Attraction between Rigid Polyelectrolytes. <i>Physical Review Letters</i> , 1997, 78, 2477-2480.	7.8	462
39	Self-Assembly of Submicrometer Rings of Particles from Solutions of Nanoparticles. <i>Angewandte Chemie International Edition in English</i> , 1997, 36, 1078-1080.	4.4	246
40	Bildung von Submikrometergroßen Partikelringen beim Verdunsten Nanopartikelhaltiger Lösungen. <i>Angewandte Chemie</i> , 1997, 109, 1120-1122.	2.0	86
41	The "New Science of Complex Fluids". <i>The Journal of Physical Chemistry</i> , 1996, 100, 13169-13189.	2.9	257
42	Crystallization of Opals from Polydisperse Nanoparticles. <i>Physical Review Letters</i> , 1995, 75, 3466-3469.	7.8	369
43	Smectic A to bilayer evolution in concentrated surfactant solutions: The role of spontaneous curvature. <i>Journal of Chemical Physics</i> , 1994, 101, 4331-4342.	3.0	14
44	Statistical Thermodynamics of Amphiphile Self-Assembly: Structure and Phase Transitions in Micellar Solutions. <i>Partially Ordered Systems</i> , 1994, , 1-104.	6.5	42
45	Flow-induced gelation of living (micellar) polymers. <i>Journal of Chemical Physics</i> , 1992, 96, 7710-7727.	3.0	66
46	Molecular theory of curvature elasticity in surfactant films. <i>Journal of Chemical Physics</i> , 1990, 92, 6800-6817.	3.0	337
47	Curvature Elasticity of Pure and Mixed Surfactant Films. <i>Physical Review Letters</i> , 1988, 60, 1966-1969.	7.8	190