William M Gelbart

List of Publications by Year
in descending order

		218677	223800
49	2,508	26	46
papers	citations	h-index	g-index

50	50	50	2241
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Counterion-Induced Attraction between Rigid Polyelectrolytes. Physical Review Letters, 1997, 78, 2477-2480.	7.8	462
2	Packaging of a Polymer by a Viral Capsid: The Interplay between Polymer Length and Capsid Size. Biophysical Journal, 2008, 94, 1428-1436.	0.5	192
3	Adhesion and Wrapping in Colloidâ^'Vesicle Complexes. Journal of Physical Chemistry B, 2002, 106, 5543-5552.	2.6	168
4	Self-Assembly of Viral Capsid Protein and RNA Molecules of Different Sizes: Requirement for a Specific High Protein/RNA Mass Ratio. Journal of Virology, 2012, 86, 3318-3326.	3.4	151
5	Microphase separation versus the vapor-liquid transition in systems of spherical particles. Journal of Chemical Physics, 1999, 110, 4582-4588.	3.0	127
6	The Assembly Pathway of an Icosahedral Single-Stranded RNA Virus Depends on the Strength of Inter-Subunit Attractions. Journal of Molecular Biology, 2014, 426, 1050-1060.	4.2	94
7	Pressurized Viruses. Science, 2009, 323, 1682-1683.	12.6	89
8	Physical Principles in the Self-Assembly of a Simple Spherical Virus. Accounts of Chemical Research, 2016, 49, 48-55.	15.6	85
9	Role of Electrostatics in the Assembly Pathway of a Single-Stranded RNA Virus. Journal of Virology, 2014, 88, 10472-10479.	3.4	79
10	Measuring the Force Ejecting DNA from Phage. Journal of Physical Chemistry B, 2004, 108, 6838-6843.	2.6	76
11	Reconstituted plant viral capsids can release genes to mammalian cells. Virology, 2013, 441, 12-17.	2.4	74
12	Curvature Dependence of Viral Protein Structures on Encapsidated Nanoemulsion Droplets. ACS Nano, 2008, 2, 281-286.	14.6	70
13	<i>In Vitro</i> Quantification of the Relative Packaging Efficiencies of Single-Stranded RNA Molecules by Viral Capsid Protein. Journal of Virology, 2012, 86, 12271-12282.	3.4	60
14	Sizes of Long RNA Molecules Are Determined by the Branching Patterns of Their Secondary Structures. Biophysical Journal, 2016, 111, 2077-2085.	0.5	53
15	Surprising Superstructures: Rings. Advanced Materials, 1998, 10, 351-353.	21.0	46
16	Visualizing the global secondary structure of a viral RNA genome with cryo-electron microscopy. Rna, 2015, 21, 877-886.	3.5	45
17	Characterization of Viral Capsid Protein Self-Assembly around Short Single-Stranded RNA. Journal of Physical Chemistry B, 2014, 118, 7510-7519.	2.6	42
18	Delivery of self-amplifying RNA vaccines in in vitro reconstituted virus-like particles. PLoS ONE, 2019, 14, e0215031.	2.5	42

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19	On the statistical thermodynamics of interacting charged particles of arbitrary shape and concentration. Journal of Chemical Physics, 1984, 81, 4574-4583.	3.0	41
20	Viral RNAs Are Unusually Compact. PLoS ONE, 2014, 9, e105875.	2.5	41
21	Chain self-assembly and phase transitions in semiflexible polymer systems. Journal of Chemical Physics, 2001, 114, 1432-1439.	3.0	36
22	Elastically Driven Linker Aggregation between Two Semiflexible Polyelectrolytes. Physical Review Letters, 2001, 86, 2182-2185.	7.8	34
23	A Simple RNA-DNA Scaffold Templates the Assembly of Monofunctional Virus-Like Particles. Journal of the American Chemical Society, 2015, 137, 7584-7587.	13.7	34
24	Bacteriophage P22 ejects all of its internal proteins before its genome. Virology, 2015, 485, 128-134.	2.4	34
25	Monte Carlo and meanâ€field studies of successive phase transitions in rod monolayers. Journal of Chemical Physics, 1992, 96, 2236-2252.	3.0	33
26	Multishell Structures of Virus Coat Proteins. Journal of Physical Chemistry B, 2010, 114, 5522-5533.	2.6	33
27	Genome organization and interaction with capsid protein in a multipartite RNA virus. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 10673-10680.	7.1	31
28	The Effect of RNA Secondary Structure onÂtheÂSelf-Assembly of Viral Capsids. Biophysical Journal, 2017, 113, 339-347.	0.5	30
29	Monte Carlo and meanâ€field studies of phase evolution in concentrated surfactant solutions. Journal of Chemical Physics, 1995, 103, 8764-8782.	3.0	26
30	The effect of macromolecular crowding on single-round transcription by<i>Escherichia coli</i>RNA polymerase. Nucleic Acids Research, 2019, 47, 1440-1450.	14.5	26
31	Role of RNA Branchedness in the Competition for Viral Capsid Proteins. Journal of Physical Chemistry B, 2015, 119, 13991-14002.	2.6	24
32	Compositional-mechanical instability of interacting mixed lipid membranes. Physical Review E, 1997, 55, 831-835.	2.1	22
33	Theory of lamellarâ€"lamellar phase transitions in pure and mixed surfactant solutions. Journal of Chemical Physics, 1999, 111, 3733-3743.	3.0	17
34	Controlling the surface charge of simple viruses. PLoS ONE, 2021, 16, e0255820.	2.5	16
35	On the parallel-perpendicular transition for a nematic phase at a wall. Liquid Crystals, 1992, 11, 25-30.	2.2	12
36	Encapsidated ultrasmall nanolipospheres as novel nanocarriers for highly hydrophobic anticancer drugs. Nanoscale, 2017, 9, 11625-11631.	5.6	12

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37	Theory of Micellar Stability in Isotropic and Nematic Phases. Molecular Crystals and Liquid Crystals, 1986, 132, 325-337.	0.8	11
38	Effect of elongational flow on the orientational order phase transitions and viscosity of hard rod fluids. Journal of Chemical Physics, 1989, 90, 597-598.	3.0	11
39	Two-Stage Dynamics of<i>In Vivo</i>Bacteriophage Genome Ejection. Physical Review X, 2018, 8, .	8.9	7
40	RNA Homopolymers Form Higher-Curvature Virus-like Particles Than Do Normal-Composition RNAs. Biophysical Journal, 2019, 117, 1331-1341.	0.5	7
41	Regulation of interferon production. Nature Materials, 2015, 14, 661-662.	27.5	5
42	Controlling the extent of viral genome release by a combination of osmotic stress and polyvalent cations. Physical Review E, 2015, 92, 022708.	2.1	4
43	Protocol for Efficient Cell-Free Synthesis of Cowpea Chlorotic Mottle Virus-Like Particles Containing Heterologous RNAs. Methods in Molecular Biology, 2018, 1776, 249-265.	0.9	2
44	How and why RNA genomes are (partially) ordered in viral capsids. Current Opinion in Virology, 2022, 52, 203-210.	5.4	2
45	Surprising Superstructures: Rings. Advanced Materials, 1998, 10, 351-353.	21.0	1
46	The non-monotonic dose dependence of protein expression in cells transfected with self-amplifying RNA. Journal of Virological Methods, 2021, , 114386.	2.1	1
47	Coaxing a Viral RNA Out Of Its Shell: How Does a Viral RNA Genome Initiate Contact With Its Host?. FASEB Journal, 2016, 30, 599.3.	0.5	0
48	Enzymatic Synthesis and Fractionation of Fluorescent PolyU RNAs. Bio-protocol, 2018, 8, e2988.	0.4	0
49	The Nonmonotonic Dose Dependence of Protein Expression in Cells Transfected with Self-Amplifying RNA. Journal of Virology, 2022, , e0185821.	3.4	0