Roya Zandi

List of Publications by Year
in descending order

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39 papers	1,391 citations	393982 19 h-index	377514 34 g-index
40 all docs	40 docs citations	40 times ranked	1022 citing authors

#	Article	IF	Citations
1	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
2	Classical Nucleation Theory of Virus Capsids. Biophysical Journal, 2006, 90, 1939-1948.	0.2	169
3	On virus growth and form. Physics Reports, 2020, 847, 1-102.	10.3	104
4	Recent advances in coarse-grained modeling of virus assembly. Current Opinion in Virology, 2016, 18, 36-43.	2.6	94
5	Why large icosahedral viruses need scaffolding proteins. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 10971-10976.	3.3	72
6	Size Regulation of ss-RNA Viruses. Biophysical Journal, 2009, 96, 9-20.	0.2	71
7	Nonequilibirum Assembly, Retroviruses, and Conical Structures. Physical Review Letters, 2009, 102, 198102.	2.9	52
8	The Robust Assembly of Small Symmetric Nanoshells. Biophysical Journal, 2015, 109, 956-965.	0.2	52
9	Thinning of superfluid films below the critical point. Physical Review E, 2007, 76, 030601.	0.8	51
10	RNA topology remolds electrostatic stabilization of viruses. Physical Review E, 2014, 89, 032707.	0.8	50
11	Quantum and thermal Casimir interaction between a sphere and a plate: Comparison of Drude and plasma models. Physical Review B, 2010, 81, .	1.1	45
12	How a Virus Circumvents Energy Barriers to Form Symmetric Shells. ACS Nano, 2020, 14, 3170-3180.	7.3	45
13	In vitro protease cleavage and computer simulations reveal the HIV-1 capsid maturation pathway. Nature Communications, 2016, 7, 13689.	5.8	43
14	The equilibrium structure of self-assembled protein nano-cages. Nanoscale, 2018, 10, 22802-22809.	2.8	39
15	Contact Mechanics of a Small Icosahedral Virus. Physical Review Letters, 2017, 119, 038102.	2.9	37
16	Effects of RNA branching on the electrostatic stabilization of viruses. Physical Review E, 2016, 94, 022408.	0.8	36
17	Energetically favoured defects in dense packings of particles on spherical surfaces. Soft Matter, 2016, 12, 5708-5717.	1.2	28
18	Ground States of Crystalline Caps: Generalized Jellium on Curved Space. Physical Review Letters, 2019, 123, 145501.	2.9	28

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19	De novo endocytic clathrin coats develop curvature at early stages of their formation. Developmental Cell, 2021, 56, 3146-3159.e5.	3.1	28
20	Impact of a nonuniform charge distribution on virus assembly. Physical Review E, 2017, 96, 022401.	0.8	27
21	Functional analysis of the N-terminal basic motif of a eukaryotic satellite RNA virus capsid protein in replication and packaging. Scientific Reports, 2016, 6, 26328.	1.6	16
22	RNA Base Pairing Determines the Conformations of RNA Inside Spherical Viruses. Physical Review Letters, 2017, 119, 188102.	2.9	14
23	The effect of RNA stiffness on the self-assembly of virus particles. Journal of Physics Condensed Matter, 2018, 30, 044002.	0.7	14
24	Virus Assembly Pathways Inside a Host Cell. ACS Nano, 2022, 16, 317-327.	7.3	14
25	The Dynamics of Viruslike Capsid Assembly and Disassembly. Journal of the American Chemical Society, 2022, 144, 12608-12612.	6.6	13
26	Elasticity in curved topographies: Exact theories and linear approximations. Physical Review E, 2019, 99, 063005.	0.8	10
27	Virus Mechanics under Molecular Crowding. Journal of Physical Chemistry B, 2021, 125, 1790-1798.	1.2	10
28	Role of Genome in the Formation of Conical Retroviral Shells. Journal of Physical Chemistry B, 2016, 120, 6298-6305.	1.2	8
29	Effect of the charge distribution of virus coat proteins on the length of packaged RNAs. Physical Review E, 2020, 102, 062423.	0.8	7
30	Relationships between RNA topology and nucleocapsid structure in a model icosahedral virus. Biophysical Journal, 2021, 120, 3925-3936.	0.2	6
31	Electromechanical stiffening of rods and tubes. Applied Physics Letters, 2004, 84, 5467-5469.	1.5	5
32	Effect of electric fields on the director field and shape of nematic tactoids. Physical Review E, 2021, 103, 062703.	0.8	5
33	The different faces of mass action in virus assembly. Journal of Biological Physics, 2018, 44, 163-179.	0.7	3
34	Investigation of HIV-1 Gag binding with RNAs and lipids using Atomic Force Microscopy. PLoS ONE, 2020, 15, e0228036.	1.1	3
35	Foreword. Journal of Biological Physics, 2018, 44, 117-117.	0.7	0
36	Investigation of HIV-1 Gag binding with RNAs and lipids using Atomic Force Microscopy. , 2020, 15, e0228036.		0

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37	Investigation of HIV-1 Gag binding with RNAs and lipids using Atomic Force Microscopy. , 2020, 15, e0228036.		0
38	Investigation of HIV-1 Gag binding with RNAs and lipids using Atomic Force Microscopy. , 2020, 15, e0228036.		0
39	Investigation of HIV-1 Gag binding with RNAs and lipids using Atomic Force Microscopy. , 2020, 15, e0228036.		0