

Rosana Colleparado-Guevara

List of Publications by Year in descending order

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Version: 2024-02-01

37
papers

2,361
citations

279487

23
h-index

288905

40
g-index

52
all docs

52
docs citations

52
times ranked

1633
citing authors

#	ARTICLE	IF	CITATIONS
1	Reentrant liquid condensate phase of proteins is stabilized by hydrophobic and non-ionic interactions. <i>Nature Communications</i> , 2021, 12, 1085.	5.8	245
2	Liquid network connectivity regulates the stability and composition of biomolecular condensates with many components. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 13238-13247.	3.3	167
3	Bimolecular reaction rates from ring polymer molecular dynamics: Application to $H + CH_4 \rightarrow H_2 + CH_3$. <i>Journal of Chemical Physics</i> , 2011, 134, 044131.	1.2	156
4	Biomolecular modeling and simulation: a field coming of age. <i>Quarterly Reviews of Biophysics</i> , 2011, 44, 191-228.	2.4	136
5	Chromatin Unfolding by Epigenetic Modifications Explained by Dramatic Impairment of Internucleosome Interactions: A Multiscale Computational Study. <i>Journal of the American Chemical Society</i> , 2015, 137, 10205-10215.	6.6	135
6	Chromatin fiber polymorphism triggered by variations of DNA linker lengths. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 8061-8066.	3.3	131
7	Physics-driven coarse-grained model for biomolecular phase separation with near-quantitative accuracy. <i>Nature Computational Science</i> , 2021, 1, 732-743.	3.8	128
8	Bimolecular reaction rates from ring polymer molecular dynamics. <i>Journal of Chemical Physics</i> , 2009, 130, 174713.	1.2	122
9	Modeling Studies of Chromatin Fiber Structure as a Function of DNA Linker Length. <i>Journal of Molecular Biology</i> , 2010, 403, 777-802.	2.0	98
10	Proton transfer in a polar solvent from ring polymer reaction rate theory. <i>Journal of Chemical Physics</i> , 2008, 128, 144502.	1.2	92
11	Nucleosome plasticity is a critical element of chromatin liquid-liquid phase separation and multivalent nucleosome interactions. <i>Nature Communications</i> , 2021, 12, 2883.	5.8	75
12	Dynamic condensation of linker histone C-terminal domain regulates chromatin structure. <i>Nucleic Acids Research</i> , 2014, 42, 7553-7560.	6.5	56
13	Thermodynamics and kinetics of phase separation of protein-RNA mixtures by a minimal model. <i>Biophysical Journal</i> , 2021, 120, 1219-1230.	0.2	56
14	Valency and Binding Affinity Variations Can Regulate the Multilayered Organization of Protein Condensates with Many Components. <i>Biomolecules</i> , 2021, 11, 278.	1.8	53
15	Surface Electrostatics Govern the Emulsion Stability of Biomolecular Condensates. <i>Nano Letters</i> , 2022, 22, 612-621.	4.5	49
16	Energy Landscapes, Folding Mechanisms, and Kinetics of RNA Tetraloop Hairpins. <i>Journal of the American Chemical Society</i> , 2014, 136, 18052-18061.	6.6	47
17	NAFlex: a web server for the study of nucleic acid flexibility. <i>Nucleic Acids Research</i> , 2013, 41, W47-W55.	6.5	45
18	Aging can transform single-component protein condensates into multiphase architectures. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	3.3	44

#	ARTICLE	IF	CITATIONS
19	Expansion of Intrinsically Disordered Proteins Increases the Range of Stability of Liquidâ€“Liquid Phase Separation. <i>Molecules</i> , 2020, 25, 4705.	1.7	42
20	Crucial role of dynamic linker histone binding and divalent ions for DNA accessibility and gene regulation revealed by mesoscale modeling of oligonucleosomes. <i>Nucleic Acids Research</i> , 2012, 40, 8803-8817.	6.5	40
21	Size conservation emerges spontaneously in biomolecular condensates formed by scaffolds and surfactant clients. <i>Scientific Reports</i> , 2021, 11, 15241.	1.6	33
22	Emergence of chromatin hierarchical loops from protein disorder and nucleosome asymmetry. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 7216-7224.	3.3	32
23	The Effect of Linker Histone's Nucleosome Binding Affinity on Chromatin Unfolding Mechanisms. <i>Biophysical Journal</i> , 2011, 101, 1670-1680.	0.2	31
24	Breakdown of the law of rectilinear diameter and related surprises in the liquid-vapor coexistence in systems of patchy particles. <i>Journal of Chemical Physics</i> , 2019, 150, 224510.	1.2	30
25	Liquid-like chromatin in the cell: What can we learn from imaging and computational modeling?. <i>Current Opinion in Structural Biology</i> , 2021, 71, 123-135.	2.6	26
26	RNA length has a non-trivial effect in the stability of biomolecular condensates formed by RNA-binding proteins. <i>PLoS Computational Biology</i> , 2022, 18, e1009810.	1.5	25
27	A HÃ¼ckel study of the effect of a molecular resonance cavity on the quantum conductance of an alkene wire. <i>Chemical Physics Letters</i> , 2004, 393, 367-371.	1.2	23
28	Structure and Properties of DNA in Apolar Solvents. <i>Journal of Physical Chemistry B</i> , 2014, 118, 8540-8548.	1.2	22
29	Targeted modulation of protein liquidâ€“liquid phase separation by evolution of amino-acid sequence. <i>PLoS Computational Biology</i> , 2021, 17, e1009328.	1.5	21
30	Kinetic interplay between droplet maturation and coalescence modulates shape of aged protein condensates. <i>Scientific Reports</i> , 2022, 12, 4390.	1.6	20
31	Protein disorder-to-order transition enhances the nucleosome-binding affinity of H1. <i>Nucleic Acids Research</i> , 2020, 48, 5318-5331.	6.5	19
32	Deoxyribonucleic Acid Encoded and Size-Defined Å–Stacking of Perylene Diimides. <i>Journal of the American Chemical Society</i> , 2022, 144, 368-376.	6.6	15
33	DNA binds to a specific site of the adhesive blood-protein von Willebrand factor guided by electrostatic interactions. <i>Nucleic Acids Research</i> , 2020, 48, 7333-7344.	6.5	14
34	Sequence-dependent structural properties of B-DNA: what have we learned in 40Åyears?. <i>Biophysical Reviews</i> , 2021, 13, 995-1005.	1.5	13
35	Insights into chromatin fibre structure by <i>in vitro</i> and <i>in silico</i> single-molecule stretching experiments. <i>Biochemical Society Transactions</i> , 2013, 41, 494-500.	1.6	9
36	Forced unraveling of chromatin fibers with nonuniform linker DNA lengths. <i>Journal of Physics Condensed Matter</i> , 2015, 27, 064113.	0.7	9

#	ARTICLE	IF	CITATIONS
37	Multiscale modelling of chromatin organisation: Resolving nucleosomes at near-atomistic resolution inside genes. <i>Current Opinion in Cell Biology</i> , 2022, 75, 102067.	2.6	9