Glen M Hocky

List of Publications by Year
in descending order

36 papers	1,409 citations	304368 22 h-index	377514 34 g-index
42 all docs	42 docs citations	42 times ranked	1427 citing authors

#	Article	IF	Citations
1	Growing Point-to-Set Length Scale Correlates with Growing Relaxation Times in Model Supercooled Liquids. Physical Review Letters, 2012, 108, 225506.	2.9	126
2	Fascin- and Î±-Actinin-Bundled Networks Contain Intrinsic Structural Features that Drive Protein Sorting. Current Biology, 2016, 26, 2697-2706.	1.8	104
3	Ionic solids from common colloids. Nature, 2020, 580, 487-490.	13.7	87
4	Correlation of Local Order with Particle Mobility in Supercooled Liquids Is Highly System Dependent. Physical Review Letters, 2014, 113, 157801.	2.9	83
5	Competition between Tropomyosin, Fimbrin, and ADF/Cofilin drives their sorting to distinct actin filament networks. ELife, 2017, 6, .	2.8	76
6	Total synthesis of colloidal matter. Nature Reviews Materials, 2021, 6, 1053-1069.	23.3	70
7	Mechanoregulated inhibition of formin facilitates contractile actomyosin ring assembly. Nature Communications, 2017, 8, 703.	5.8	66
8	A Versatile Framework for Simulating the Dynamic Mechanical Structure of Cytoskeletal Networks. Biophysical Journal, 2017, 113, 448-460.	0.2	66
9	Influence of nonlinear electrostatics on transfer energies between liquid phases: Charge burial is far less expensive than Born model. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 11146-11151.	3.3	54
10	Actin Filament Strain Promotes Severing and Cofilin Dissociation. Biophysical Journal, 2017, 112, 2624-2633.	0.2	49
11	The F-actin bundler Î±-actinin Ain1 is tailored for ring assembly and constriction during cytokinesis in fission yeast. Molecular Biology of the Cell, 2016, 27, 1821-1833.	0.9	47
12	Mechanical and kinetic factors drive sorting of F-actin cross-linkers on bundles. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 16192-16197.	3.3	43
13	Crossovers in the dynamics of supercooled liquids probed by an amorphous wall. Physical Review E, 2014, 89, 052311.	0.8	42
14	Cations Stiffen Actin Filaments by Adhering a Key Structural Element to Adjacent Subunits. Journal of Physical Chemistry B, 2016, 120, 4558-4567.	1.2	39
15	Phosphomimetic S3D cofilin binds but only weakly severs actin filaments. Journal of Biological Chemistry, 2017, 292, 19565-19579.	1.6	35
16	Nonequilibrium phase diagrams for actomyosin networks. Soft Matter, 2018, 14, 7740-7747.	1.2	35
17	Structure of Arp2/3 complex at a branched actin filament junction resolved by single-particle cryo-electron microscopy. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	33
18	Equilibrium ultrastable glasses produced by random pinning. Journal of Chemical Physics, 2014, 141, 224503.	1.2	31

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19	Exploring Valleys without Climbing Every Peak: More Efficient and Forgiving Metabasin Metadynamics via Robust On-the-Fly Bias Domain Restriction. Journal of Chemical Theory and Computation, 2015, 11, 5638-5650.	2.3	31
20	Insights into the Cooperative Nature of ATP Hydrolysis in Actin Filaments. Biophysical Journal, 2018, 115, 1589-1602.	0.2	29
21	Actin crosslinker competition and sorting drive emergent GUV size-dependent actin network architecture. Communications Biology, 2021, 4, 1136.	2.0	26
22	Protein structure prediction enhanced with evolutionary diversity: SPEED. Protein Science, 2010, 19, 520-534.	3.1	23
23	Residue-Level Allostery Propagates through the Effective Coarse-Grained Hessian. Journal of Chemical Theory and Computation, 2020, 16, 3385-3395.	2.3	21
24	Communication: Improved <i>ab initio</i> molecular dynamics by minimally biasing with experimental data. Journal of Chemical Physics, 2017, 146, 041102.	1.2	20
25	Plastic Deformation and Fragmentation of Strained Actin Filaments. Biophysical Journal, 2019, 117, 453-463.	0.2	19
26	Natural language processing models that automate programming will transform chemistry research and teaching. , 2022, 1, 79-83.		19
27	Size-and-Shape Space Gaussian Mixture Models for Structural Clustering of Molecular Dynamics Trajectories. Journal of Chemical Theory and Computation, 2022, 18, 3218-3230.	2.3	18
28	Structural basis of fast- and slow-severing actinâ€“cofilactin boundaries. Journal of Biological Chemistry, 2021, 296, 100337.	1.6	15
29	Molecular Paradigms for Biological Mechanosensing. Journal of Physical Chemistry B, 2021, 125, 12115-12124.	1.2	14
30	A small subset of normal modes mimics the properties of dynamical heterogeneity in a model supercooled liquid. Journal of Chemical Physics, 2013, 138, 12A537.	1.2	13
31	Infinite switch simulated tempering in force (FISST). Journal of Chemical Physics, 2020, 152, 244120.	1.2	12
32	Assessing models of force-dependent unbinding rates via infrequent metadynamics. Journal of Chemical Physics, 2022, 156, 125102.	1.2	12
33	Coarse-Grained Directed Simulation. Journal of Chemical Theory and Computation, 2017, 13, 4593-4603.	2.3	11
34	A Burst of Genetic Innovation in Drosophila Actin-Related Proteins for Testis-Specific Function. Molecular Biology and Evolution, 2020, 37, 757-772.	3.5	10
35	Minimal Experimental Bias on the Hydrogen Bond Greatly Improves Ab Initio Molecular Dynamics Simulations of Water. Journal of Chemical Theory and Computation, 2020, 16, 5675-5684.	2.3	9
36	A strong nonequilibrium bound for sorting of cross-linkers on growing biopolymers. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	4