Gary S Ayton

List of Publications by Year
in descending order

29 papers	2,655 citations	331670 21 h-index	477307 29 g-index
29 all docs	29 docs citations	29 times ranked	2089 citing authors

#	Article	IF	Citations
1	The multiscale coarse-graining method. I. A rigorous bridge between atomistic and coarse-grained models. Journal of Chemical Physics, 2008, 128, 244114.	3.0	651
2	Multiscale modeling of biomolecular systems: in serial and in parallel. Current Opinion in Structural Biology, 2007, 17, 192-198.	5.7	395
3	The multiscale coarse-graining method. II. Numerical implementation for coarse-grained molecular models. Journal of Chemical Physics, 2008, 128, 244115.	3.0	326
4	Multiscale Coarse-Graining and Structural Correlations:Â Connections to Liquid-State Theory. Journal of Physical Chemistry B, 2007, 111, 4116-4127.	2.6	191
5	Systematic multiscale simulation of membrane protein systems. Current Opinion in Structural Biology, 2009, 19, 138-144.	5.7	93
6	Membrane Remodeling from N-BAR Domain Interactions: Insights from Multi-Scale Simulation. Biophysical Journal, 2007, 92, 3595-3602.	0.5	91
7	Multiscale Computer Simulation of the Immature HIV-1 Virion. Biophysical Journal, 2010, 99, 2757-2765.	0.5	75
8	New Insights into BAR Domain-Induced Membrane Remodeling. Biophysical Journal, 2009, 97, 1616-1625.	0.5	74
9	Role of Protein Interactions in Defining HIV-1 Viral Capsid Shape and Stability: A Coarse-Grained Analysis. Biophysical Journal, 2010, 98, 18-26.	0.5	74
10	Coupling Field Theory with Continuum Mechanics: A Simulation of Domain Formation in Giant Unilamellar Vesicles. Biophysical Journal, 2005, 88, 3855-3869.	0.5	71
11	Hierarchical coarse-graining strategy for protein-membrane systems to access mesoscopic scales. Faraday Discussions, 2010, 144, 347-357.	3.2	62
12	Multiscale coupling of mesoscopic- and atomistic-level lipid bilayer simulations. Journal of Chemical Physics, 2005, 122, 244716.	3.0	56
13	Hybrid Coarse-Graining Approach for Lipid Bilayers at Large Length and Time Scales. Journal of Physical Chemistry B, 2009, 113, 4413-4424.	2.6	56
14	Membrane Binding by the Endophilin N-BAR Domain. Biophysical Journal, 2009, 97, 2746-2753.	0.5	54
15	Multiscale simulation of transmembrane proteins. Journal of Structural Biology, 2007, 157, 570-578.	2.8	42
16	Mesoscopic Lateral Diffusion in Lipid Bilayers. Biophysical Journal, 2004, 87, 3299-3311.	0.5	41
17	A second generation mesoscopic lipid bilayer model: Connections to field-theory descriptions of membranes and nonlocal hydrodynamics. Journal of Chemical Physics, 2006, 124, 064906.	3.0	41
18	Multiscale simulation of protein mediated membrane remodeling. Seminars in Cell and Developmental Biology, 2010, 21, 357-362.	5.0	39

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19	Systematic Coarse Graining of Biomolecular and Soft-Matter Systems. MRS Bulletin, 2007, 32, 929-934.	3.5	36
20	A new perspective on the coarse-grained dynamics of fluids. Journal of Chemical Physics, 2004, 120, 4074-4088.	3.0	33
21	Extending the fluctuation theorem to describe reaction coordinates. Journal of Chemical Physics, 2007, 126, 051102.	3.0	27
22	Probing the Molecular-Scale Lipid Bilayer Response to Shear Flow Using Nonequilibrium Molecular Dynamics. Journal of Physical Chemistry B, 2005, 109, 18673-18679.	2.6	20
23	Extending a Spectrin Repeat Unit. I: Linear Force-Extension Response. Biophysical Journal, 2006, 90, 92-100.	0.5	20
24	Mesoscopic Modeling of Bacterial Flagellar Microhydrodynamics. Biophysical Journal, 2006, 91, 3640-3652.	0.5	19
25	Atomistic and Coarse-grained Analysis of Double Spectrin Repeat Units: The Molecular Origins of Flexibility. Journal of Molecular Biology, 2007, 365, 523-534.	4.2	18
26	Extending a Spectrin Repeat Unit. II: Rupture Behavior. Biophysical Journal, 2006, 90, 101-111.	0.5	17
27	Chapter 7 Multiscale Simulation of Membranes and Membrane Proteins: Connecting Molecular Interactions to Mesoscopic Behavior. Current Topics in Membranes, 2008, 60, 181-225.	0.9	15
28	Simulation of Biomolecular Systems at Multiple Length and Time Scales. International Journal for Multiscale Computational Engineering, 2004, 2, 291-312.	1.2	12
29	Transient violations of the second law of thermodynamics in protein unfolding examined using synthetic atomic force microscopy and the fluctuation theorem. Journal of Chemical Physics, 2007, 127, 105105.	3.0	6