

Publications of Gregory A. Voth

(As of 7/23/18: 507 total publications, Google Scholar h-index = 97; i10 index = 435; total citations = 36,446; 15,636 since 2013)

Submitted

1. J. J. Madsen, J. M. A. Grime, J. S. Rossman, and G. A. Voth, “Entropic Forces Drive Clustering and Spatial Localization of Influenza A M2 During Viral Budding”, Proc. Nat. Acad. Sci. USA (under review).
2. T. C. Bidone, A. Polley,* J. Jin,* T. Driscoll, D. Iwamoto, D. Calderwood, M. A. Schwartz, and G. A. Voth, “New Insights into the Conformational Activation of Full-Length Integrin”, Biophys. J. (*Authors contributed equally) (under review).
3. Z. Wang, J. M. J. Swanson,* and G. A. Voth,* “Modulating the Chemical Transport Properties of a Transmembrane Antiporter via Alternative Anion Flux”, J. Am. Chem. Soc. (*Co-corresponding authors) (under review).
4. H. H. Katkar, A. Davtyan, A. E. P. Durumeric, G. M. Hocky, A. C. Schramm, E. M. De La Cruz, and G. A. Voth, “Insights into the Cooperative Nature of ATP Hydrolysis in Actin Filaments”, Biophys. J. (under review).
5. Z. Jarin, A. Davtyan, F.-C. Tsai, J. Grime, P. Bassereau, and G. A. Voth, “Organization of I-BAR Proteins on Tubular and Vesicular Membranes” Biophys. J. (to be submitted).

Accepted

1. Y. Han, J. F. Dama, and G. A. Voth, “Mesoscopic Coarse-grained Representations of Fluids Rigorously Derived from Atomistic Models”, J. Chem. Phys. (in press).

Published

1. F. Aydin, N. Courtemanche, T. D. Pollard, and G. A. Voth, “Gating Mechanisms during Actin Filament Elongation by Formins”, eLife **7**, e37342 (2018).
2. R. Sun, Y. Han, J. M.J. Swanson, J. S. Tan, J. P. Rose, and G. A. Voth, “Molecular Transport through Membranes: Accurate Permeability Coefficients from Multidimensional Potentials of Mean Force and Local Diffusion Constants”, J. Chem. Phys. **149**, 072310(1-11) (2018).
3. J. Jin and G. A. Voth, “Ultra-Coarse-Grained Models Allow for an Accurate and Transferable Treatment of Interfacial Systems”, J. Chem. Theory Comp. **14**, 2180-2197 (2018).
4. M. Simunovic, P. Bassereau, and G. A. Voth, “Organizing Membrane-Curving Proteins: The Emerging Dynamical Picture”, Curr. Opin. Struct. Biol. **51**, 99-105 (2018). PMID: In Progress

5. P. W. Oakes, T. C. Bidone, Y. Beckham, A. V. Skeeters, G. R. Ramirez-San Juan, S. P. Winter, G. A. Voth, and M. L. Gardel, “The Lamellipodia is a Myosin Independent Mechanosensor”, *Proc. Nat. Acad. Sci. USA* **115**, 2646-2651 (2018). PMID: PMC5856528
6. H. B. Mayes,* S. Lee,* G.A. Voth,# and J.M.J. Swanson,# “Multiscale Kinetic Modeling Reveals Ensemble of Cl⁻/H⁺ Exchange Pathways in CIC-ec1 Antiporter”, *J. Am. Chem. Soc.* **140**, 1793–1804 (2018) (*Authors contributed equally, #Co-corresponding authors). PMID: PMC5812667
7. A. C. Sinitskiy and G. A. Voth, “Quantum Mechanics / Coarse-Grained Molecular Mechanics (QM/CG-MM)”, *J. Chem. Phys.* **148**, 014102(1-16) (2018). PMID: 29332400
8. C. Prévost,* M. E. Sharp,* N. Kory, Q. Lin, G. A. Voth,# and R. V. Farese Jr.,# and T. C. Walther,# “Mechanism and Determinants of Amphipathic Helix-Containing Proteins to Lipid Droplets”, *Dev. Cell.* **44**, 73-86 (2018). (*,#Authors contributed equally). PMID: PMC5764114
9. Y. Han, J. Jin, J. Wagner, and G. A. Voth, “Quantum Theory of Multiscale Coarse-graining”, *J. Chem. Phys.* **148**, 102335(1-15) (2018).
10. J. L Parker, C. Li, A. Brinth, Z. Wang, L. Vogeley, N. Solcan, G. Ledderboge-Vucinic, J.M.J. Swanson, M. Caffrey, G. A Voth, and S. Newstead, “Proton Movement and Coupling in the POT Family of Peptide Transporters”, *Proc. Nat. Acad. Sci. USA* **114**, 13182–13187 (2017). PMID: PMC5740623
11. M. Simunovic, A. Šarić, J. M. Henderson, K-Y.C. Lee, and G. A. Voth, “Long-range Organization of Membrane-Curving Proteins”, *ACS Cen. Sci.* **3**, 1246-1253 (2017) PMID: PMC5746856
12. A. J. Pak, J. M. A. Grime, P. Sengupta, A. K. Chen, A. E. P. Durumerica, A. Srivastava, M. Yeager, J. A. G. Briggs, J. Lippincott-Schwartz, and G. A. Voth, “Immature HIV-1 Lattice Assembly Dynamics are Regulated by Scaffolding from Nucleic Acid and the Plasma Membrane” *Proc. Nat. Acad. Sci. USA* **114**, E10056-E10065 (2017). PMID: PMC5703280
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16. C. Chen, C.Arntsen, and G. A. Voth, “Development of Reactive Force Fields Using Ab Initio Molecular Dynamics Simulation Minimally Biased to Experimental Data”, *J. Chem. Phys.* **147**, 161719(1-7) (2017). PMID: PMC5584654
17. J. W. Wagner, T. Dannenhoffer-Lafage, J. Jin, and G. A. Voth, “Extending the Range and Physical Accuracy of Coarse-grained Models: Order Parameter Dependent Interactions”, *J. Chem. Phys.* **147**, 044113(1-13) (2017). PMID: 28764380

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24. C. Arntsen, C. Chen, and Gregory A. Voth, “Reactive Molecular Dynamics Models from *Ab Initio* Molecular Dynamics Data Using Relative Entropy Minimization”, *Chem. Phys. Lett.* **683**, 573-578 (2017). PMID: PMC5568817
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