

Nathan A Mahynski

List of Publications by Year in descending order

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Version: 2024-02-01

40
papers

510
citations

706676

14
h-index

843174

20
g-index

41
all docs

41
docs citations

41
times ranked

618
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Flat-histogram extrapolation as a useful tool in the age of big data. <i>Molecular Simulation</i> , 2021, 47, 395-407. | 0.9 | 7 |
| 2 | Symmetry-derived structure directing agents for two-dimensional crystals of arbitrary colloids. <i>Soft Matter</i> , 2021, 17, 7853-7866. | 1.2 | 4 |
| 3 | Seabird Tissue Archival and Monitoring Project (STAMP) Data from 1999-2010. <i>Journal of Research of the National Institute of Standards and Technology</i> , 2021, 126, . | 0.4 | 1 |
| 4 | Dynamic arrest of adhesive hard rod dispersions. <i>Soft Matter</i> , 2020, 16, 1279-1286. | 1.2 | 9 |
| 5 | Extrapolation and interpolation strategies for efficiently estimating structural observables as a function of temperature and density. <i>Journal of Chemical Physics</i> , 2020, 153, 144101. | 1.2 | 12 |
| 6 | Symmetry-Based Crystal Structure Enumeration in Two Dimensions. <i>Journal of Physical Chemistry A</i> , 2020, 124, 3276-3285. | 1.1 | 4 |
| 7 | Grand canonical inverse design of multicomponent colloidal crystals. <i>Soft Matter</i> , 2020, 16, 3187-3194. | 1.2 | 16 |
| 8 | Using symmetry to elucidate the importance of stoichiometry in colloidal crystal assembly. <i>Nature Communications</i> , 2019, 10, 2028. | 5.8 | 14 |
| 9 | On the virial coefficients of confined fluids: Analytic expressions for the thermodynamic properties of hard particles with attractions in slit and cylindrical pores to second order. <i>Journal of Chemical Physics</i> , 2019, 150, 044704. | 1.2 | 5 |
| 10 | Molecular simulation of capillary phase transitions in flexible porous materials. <i>Journal of Chemical Physics</i> , 2018, 148, 124115. | 1.2 | 11 |
| 11 | FEASST: Free Energy and Advanced Sampling Simulation Toolkit. <i>Journal of Research of the National Institute of Standards and Technology</i> , 2018, 123, 1-3. | 0.4 | 16 |
| 12 | Monte Carlo simulation of cylinders with short-range attractions. <i>AIP Advances</i> , 2018, 8, 095210. | 0.6 | 9 |
| 13 | Flat-Histogram Monte Carlo as an Efficient Tool To Evaluate Adsorption Processes Involving Rigid and Deformable Molecules. <i>Journal of Chemical Theory and Computation</i> , 2018, 14, 6149-6158. | 2.3 | 16 |
| 14 | Predicting structural properties of fluids by thermodynamic extrapolation. <i>Journal of Chemical Physics</i> , 2018, 148, 194105. | 1.2 | 12 |
| 15 | Assembly of three-dimensional binary superlattices from multi-flavored particles. <i>Soft Matter</i> , 2018, 14, 6303-6312. | 1.2 | 15 |
| 16 | Tuning flexibility to control selectivity in soft porous crystals. <i>Journal of Chemical Physics</i> , 2017, 146, 044706. | 1.2 | 6 |
| 17 | Predicting low-temperature free energy landscapes with flat-histogram Monte Carlo methods. <i>Journal of Chemical Physics</i> , 2017, 146, 074101. | 1.2 | 13 |
| 18 | Directionally Interacting Spheres and Rods Form Ordered Phases. <i>ACS Nano</i> , 2017, 11, 4950-4959. | 7.3 | 19 |

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|----|---|-----|-----------|
| 19 | Relationship between pore-size distribution and flexibility of adsorbent materials: statistical mechanics and future material characterization techniques. <i>Adsorption</i> , 2017, 23, 593-602. | 1.4 | 9 |
| 20 | Temperature extrapolation of multicomponent grand canonical free energy landscapes. <i>Journal of Chemical Physics</i> , 2017, 147, 054105. | 1.2 | 16 |
| 21 | Reentrant equilibrium disordering in nanoparticle-polymer mixtures. <i>Npj Computational Materials</i> , 2017, 3, . | 3.5 | 2 |
| 22 | Assembly of multi-flavored two-dimensional colloidal crystals. <i>Soft Matter</i> , 2017, 13, 5397-5408. | 1.2 | 19 |
| 23 | Multivariable extrapolation of grand canonical free energy landscapes. <i>Journal of Chemical Physics</i> , 2017, 147, 234111. | 1.2 | 12 |
| 24 | Communication: Predicting virial coefficients and alchemical transformations by extrapolating Mayer-sampling Monte Carlo simulations. <i>Journal of Chemical Physics</i> , 2017, 147, 231102. | 1.2 | 9 |
| 25 | Controlling relative polymorph stability in soft porous crystals with a barostat. <i>Journal of Chemical Physics</i> , 2017, 146, 224706. | 1.2 | 1 |
| 26 | Multicomponent adsorption in mesoporous flexible materials with flat-histogram Monte Carlo methods. <i>Journal of Chemical Physics</i> , 2016, 145, 174709. | 1.2 | 11 |
| 27 | Bottom-Up Colloidal Crystal Assembly with a Twist. <i>ACS Nano</i> , 2016, 10, 5459-5467. | 7.3 | 32 |
| 28 | Entropic control over nanoscale colloidal crystals. <i>Molecular Physics</i> , 2016, 114, 2586-2596. | 0.8 | 3 |
| 29 | Void-Based Assembly of Colloidal Crystals: Using Structure-Directing Agents to Direct the Assembly of Open Colloidal Crystals. <i>GIJ Laboratory Journal Europe</i> , 2016, 5, 1-5. | 0.0 | 0 |
| 30 | Coarse-graining and phase behavior of model star polymer-colloid mixtures in solvents of varying quality. <i>Journal of Chemical Physics</i> , 2015, 143, 243108. | 1.2 | 7 |
| 31 | Tuning polymer architecture to manipulate the relative stability of different colloid crystal morphologies. <i>Soft Matter</i> , 2015, 11, 5146-5153. | 1.2 | 13 |
| 32 | Grafted nanoparticles as soft patchy colloids: Self-assembly versus phase separation. <i>Journal of Chemical Physics</i> , 2015, 142, 074901. | 1.2 | 21 |
| 33 | Relative stability of the FCC and HCP polymorphs with interacting polymers. <i>Soft Matter</i> , 2015, 11, 280-289. | 1.2 | 22 |
| 34 | Flow-induced demixing of polymer-colloid mixtures in microfluidic channels. <i>Journal of Chemical Physics</i> , 2014, 140, 094903. | 1.2 | 17 |
| 35 | Stabilizing colloidal crystals by leveraging void distributions. <i>Nature Communications</i> , 2014, 5, 4472. | 5.8 | 50 |
| 36 | Structure of phase-separated athermal colloid-polymer systems in the protein limit. <i>Physical Review E</i> , 2013, 87, 022309. | 0.8 | 16 |

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|----|--|-----|-----------|
| 37 | Phase behavior of athermal colloid-star polymer mixtures. <i>Journal of Chemical Physics</i> , 2013, 139, 024907. | 1.2 | 18 |
| 38 | Reduced Water Density in a Poly(ethylene oxide) Brush. <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 1589-1595. | 2.1 | 13 |
| 39 | Pressure and density scaling for colloid-polymer systems in the protein limit. <i>Physical Review E</i> , 2012, 85, 051402. | 0.8 | 18 |
| 40 | Crystallization of Bidisperse Repulsive Colloids in Two-Dimensional Space: A Study of Model Systems Constructed at the Air-Water Interface. <i>Langmuir</i> , 2010, 26, 11737-11749. | 1.6 | 9 |