## W Michael Brown

## List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/11324520/publications.pdf

Version: 2024-02-01

21 papers 4,514 citations

623734 14 h-index 752698 20 g-index

21 all docs

21 docs citations

21 times ranked

2187 citing authors

| #  | Article   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | LAMMPS - a flexible simulation tool for particle-based materials modeling at the atomic, meso, and continuum scales. Computer Physics Communications, 2022, 271, 108171.        | 7.5 | 3,106     |
| 2  | Implementing molecular dynamics on hybrid high performance computers – short range forces.<br>Computer Physics Communications, 2011, 182, 898-911.                              | 7.5 | 549       |
| 3  | Implementing molecular dynamics on hybrid high performance computers – Particle–particle particle-mesh. Computer Physics Communications, 2012, 183, 449-459.                    | 7.5 | 373       |
| 4  | Implementing molecular dynamics on hybrid high performance computers—Three-body potentials. Computer Physics Communications, 2013, 184, 2785-2793.                              | 7.5 | 112       |
| 5  | Liquid crystal nanodroplets in solution. Journal of Chemical Physics, 2009, 130, 044901.  | 3.0 | 73        |
| 6  | New insights into the dynamics and morphology of P3HT:PCBM active layers in bulk heterojunctions. Physical Chemistry Chemical Physics, 2013, 15, 17873.                         | 2.8 | 53        |
| 7  | Optimal Neuronal Tuning for Finite Stimulus Spaces. Neural Computation, 2006, 18, 1511-1526.  | 2.2 | 37        |
| 8  | Optimizing legacy molecular dynamics software with directive-based offload. Computer Physics Communications, 2015, 195, 95-101.   | 7.5 | 32        |
| 9  | Designing Novel Polymers with Targeted Properties Using the Signature Molecular Descriptor. Journal of Chemical Information and Modeling, 2006, 46, 826-835.                    | 5.4 | 31        |
| 10 | Explicit Solvent Simulations of Friction between Brush Layers of Charged and Neutral Bottle-Brush Macromolecules. Macromolecules, 2012, 45, 8880-8891.                          | 4.8 | 28        |
| 11 | Accelerated application development: The ORNL Titan experience. Computers and Electrical Engineering, 2015, 46, 123-138.  | 4.8 | 26        |
| 12 | An Evaluation of Molecular Dynamics Performance on the Hybrid Cray XK6 Supercomputer. Procedia Computer Science, 2012, 9, 186-195.  | 2.0 | 24        |
| 13 | Rupture mechanism of liquid crystal thin films realized by large-scale molecular simulations. Nanoscale, 2014, 6, 3083-3096.  | 5.6 | 20        |
| 14 | A Case Study of Truncated Electrostatics for Simulation of Polyelectrolyte Brushes on GPU Accelerators. Journal of Chemical Theory and Computation, 2013, 9, 73-83.             | 5.3 | 17        |
| 15 | Prediction of $\hat{l}^2$ -strand packing interactions using the signature product. Journal of Molecular Modeling, 2006, 12, 355-361.   | 1.8 | 9         |
| 16 | Creating Artificial Binding Pocket Boundaries To Improve the Efficiency of Flexible Ligand Docking. Journal of Chemical Information and Computer Sciences, 2004, 44, 1412-1422. | 2.8 | 6         |
| 17 | A deterministic algorithm for constrained enumeration of transmembrane protein folds. Computational Biology and Chemistry, 2005, 29, 143-150.                                   | 2.3 | 5         |
| 18 | Efficient Calculation of Molecular Properties from Simulation Using Kernel Molecular Dynamics. Journal of Chemical Information and Modeling, 2008, 48, 1626-1637.               | 5.4 | 5         |

| #  | Article   | lF  | CITATIONS |
|----|---|-----|-----------|
| 19 | Disparate data fusion for protein phosphorylation prediction. Annals of Operations Research, 2010, 174, 219-235.  | 4.1 | 3         |
| 20 | Increasing Molecular Dynamics Simulation Rates with an 8-Fold Increase in Electrical Power Efficiency. , $2016,  ,  .$  |     | 3         |
| 21 | Genetic algorithm based task reordering to improve the performance of batch scheduled massively parallel scientific applications. Concurrency Computation Practice and Experience, 2015, 27, 4763-4783. | 2.2 | 2         |