## Daan Frenkel

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/5440509/publications.pdf

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530 papers 42,673 citations

103 h-index 181 g-index

544 all docs 544 docs citations

544 times ranked 20306 citing authors

| #  | Article   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | Enhancement of Protein Crystal Nucleation by Critical Density Fluctuations. Science, 1997, 277, 1975-1978.  | 6.0  | 1,262     |
| 2  | Understanding Molecular Simulation. Computers in Physics, 1997, 11, 351-354.  | 0.6  | 1,063     |
| 3  | New Monte Carlo method to compute the free energy of arbitrary solids. Application to the fcc and hcp phases of hard spheres. Journal of Chemical Physics, 1984, 81, 3188-3193. | 1.2  | 1,060     |
| 4  | Configurational bias Monte Carlo: a new sampling scheme for flexible chains. Molecular Physics, 1992, 75, 59-70.  | 0.8  | 1,016     |
| 5  | Prediction of absolute crystal-nucleation rate in hard-sphere colloids. Nature, 2001, 409, 1020-1023.   | 13.7 | 865       |
| 6  | Tracing the phase boundaries of hard spherocylinders. Journal of Chemical Physics, 1997, 106, 666-687.  | 1.2  | 708       |
| 7  | Numerical calculation of the rate of crystal nucleation in a Lennardâ€Jones system at moderate undercooling. Journal of Chemical Physics, 1996, 104, 9932-9947.                 | 1.2  | 679       |
| 8  | Monte Carlo study of the isotropic and nematic phases of infinitely thin hard platelets. Molecular Physics, 1984, 52, 1303-1334.  | 0.8  | 618       |
| 9  | Numerical Evidence for bcc Ordering at the Surface of a Critical fcc Nucleus. Physical Review Letters, 1995, 75, 2714-2717.   | 2.9  | 463       |
| 10 | The hard ellipsoid-of-revolution fluid. Molecular Physics, 1985, 55, 1171-1192.   | 0.8  | 457       |
| 11 | Fluid–fluid coexistence in colloidal systems with short-ranged strongly directional attraction.<br>Journal of Chemical Physics, 2003, 118, 9882-9889.                           | 1.2  | 452       |
| 12 | Molecular Dynamics Simulations. , 2002, , 63-107.   |      | 441       |
| 13 | Receptor-Mediated Endocytosis of Nanoparticles of Various Shapes. Nano Letters, 2011, 11, 5391-5395.  | 4.5  | 441       |
| 14 | Computer simulation study of gas–liquid nucleation in a Lennard-Jones system. Journal of Chemical Physics, 1998, 109, 9901-9918.  | 1.2  | 426       |
| 15 | Monte Carlo Simulations. , 2002, , 23-61.   |      | 414       |
| 16 | Determination of phase diagrams for the hardâ€core attractive Yukawa system. Journal of Chemical Physics, 1994, 101, 4093-4097.   | 1.2  | 410       |
| 17 | Extended corresponding-states behavior for particles with variable range attractions. Journal of Chemical Physics, 2000, 113, 2941-2944.  | 1.2  | 404       |
| 18 | Entropy difference between crystal phases. Nature, 1997, 388, 235-236.  | 13.7 | 396       |

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| 19             | Novel scheme to study structural and thermal properties of continuously deformable molecules. Journal of Physics Condensed Matter, 1992, 4, 3053-3076.   | 0.7               | 384                      |
| 20             | Suppression of crystal nucleation in polydisperse colloids due to increase of the surface free energy. Nature, 2001, 413, 711-713.   | 13.7              | 370                      |
| 21             | Phase behavior of disklike hard-core mesogens. Physical Review A, 1992, 45, 5632-5648.   | 1.0               | 368                      |
| 22             | Computer simulation study of free energy barriers in crystal nucleation. Journal of Chemical Physics, 1992, 96, 4655-4668.   | 1.2               | 367                      |
| 23             | Onset of heterogeneous crystal nucleation in colloidal suspensions. Nature, 2004, 428, 404-406.  | 13.7              | 355                      |
| 24             | Thermodynamic stability of a smectic phase in a system of hard rods. Nature, 1988, 332, 822-823.   | 13.7              | 354                      |
| 25             | Entropy-driven formation of a superlattice in a hard-sphere binary mixture. Nature, 1993, 365, 35-37.  | 13.7              | 321                      |
| 26             | Accelerating Monte Carlo Sampling. , 2002, , 389-408.  |                   | 316                      |
| 27             | Simulating rare events in equilibrium or nonequilibrium stochastic systems. Journal of Chemical Physics, 2006, 124, 024102.  | 1.2               | 314                      |
| 28             | Computer simulations in the Gibbs ensemble. Molecular Physics, 1989, 68, 931-950.  | 0.8               | 311                      |
| 29             | Numerical prediction of absolute crystallization rates in hard-sphere colloids. Journal of Chemical  |                   |                          |
|                | Physics, 2004, 120, 3015-3029.   | 1.2               | 303                      |
| 30             | Physics, 2004, 120, 3015-3029.  Dissipative particle dynamics for interacting systems. Journal of Chemical Physics, 2001, 115, 5015-5026.  | 1.2               | 303<br>296               |
| 30             | Physics, 2004, 120, 3015-3029.   |                   |                          |
|                | Physics, 2004, 120, 3015-3029.  Dissipative particle dynamics for interacting systems. Journal of Chemical Physics, 2001, 115, 5015-5026.  | 1.2               | 296                      |
| 31             | Physics, 2004, 120, 3015-3029.  Dissipative particle dynamics for interacting systems. Journal of Chemical Physics, 2001, 115, 5015-5026.  Phase Diagram of a System of Hard Ellipsoids. Physical Review Letters, 1984, 52, 287-290.  The Steady State of Heterogeneous Catalysis, Studied by First-Principles Statistical Mechanics. Physical   | 2.9               | 296<br>294               |
| 31             | Physics, 2004, 120, 3015-3029.  Dissipative particle dynamics for interacting systems. Journal of Chemical Physics, 2001, 115, 5015-5026.  Phase Diagram of a System of Hard Ellipsoids. Physical Review Letters, 1984, 52, 287-290.  The Steady State of Heterogeneous Catalysis, Studied by First-Principles Statistical Mechanics. Physical Review Letters, 2004, 93, 116105.  Colloids dispersed in polymer solutions. A computer simulation study. Journal of Chemical Physics,                       | 1.2<br>2.9<br>2.9 | 296<br>294<br>289        |
| 31<br>32<br>33 | Physics, 2004, 120, 3015-3029.  Dissipative particle dynamics for interacting systems. Journal of Chemical Physics, 2001, 115, 5015-5026.  Phase Diagram of a System of Hard Ellipsoids. Physical Review Letters, 1984, 52, 287-290.  The Steady State of Heterogeneous Catalysis, Studied by First-Principles Statistical Mechanics. Physical Review Letters, 2004, 93, 116105.  Colloids dispersed in polymer solutions. A computer simulation study. Journal of Chemical Physics, 1994, 100, 6873-6887. | 1.2<br>2.9<br>2.9 | 296<br>294<br>289<br>274 |

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|----|---|------|-----------|
| 37 | Evidence for algebraic orientational order in a two-dimensional hard-core nematic. Physical Review A, 1985, 31, 1776-1787.  | 1.0  | 241       |
| 38 | Molecular dynamics studies of orientational and collisionâ€induced light scattering in molecular fluids. Journal of Chemical Physics, 1980, 72, 2801-2818.  | 1.2  | 229       |
| 39 | Ab InitioMolecular Dynamics with Excited Electrons. Physical Review Letters, 1994, 73, 2599-2602.   | 2.9  | 227       |
| 40 | Phase diagram of a system of hard spherocylinders by computer simulation. Physical Review A, 1990, 41, 3237-3244.   | 1.0  | 221       |
| 41 | Melting line of Yukawa system by computer simulation. Journal of Chemical Physics, 1991, 94, 2269-2271.   | 1.2  | 220       |
| 42 | Ab initioMolecular Dynamics Simulation of Laser Melting of Silicon. Physical Review Letters, 1996, 77, 3149-3152.   | 2.9  | 216       |
| 43 | Phase behavior of two-dimensional hard rod fluids. Journal of Chemical Physics, 2000, 112, 10034-10041.   | 1.2  | 215       |
| 44 | Hard Convex Body Fluids. Advances in Chemical Physics, 2007, , 1-166.   | 0.3  | 205       |
| 45 | Order through entropy. Nature Materials, 2015, 14, 9-12.  | 13.3 | 205       |
| 46 | Depletion effects in binary hard-sphere fluids. Journal of Physics Condensed Matter, 1996, 8, 10799-10821.  | 0.7  | 199       |
| 47 | Finite-size corrections to the free energies of crystalline solids. Journal of Chemical Physics, 2000, 112, 5339-5342.  | 1.2  | 199       |
| 48 | Homogeneous nucleation and the Ostwald step rule. Physical Chemistry Chemical Physics, 1999, 1, 2191-2196.  | 1.3  | 196       |
| 49 | Structure of hard-core models for liquid crystals. The Journal of Physical Chemistry, 1988, 92, 3280-3284.  | 2.9  | 193       |
| 50 | Direct simulation of phase equilibria of chain molecules. Journal of Physics Condensed Matter, 1992,  |      |           |
|    | 4, L255-L259.   | 0.7  | 190       |
| 51 |   | 2.9  | 185       |
|    | 4, L255-L259.  Prediction of an expanded-to-condensed transition in colloidal crystals. Physical Review Letters, 1994,  |      |           |
| 51 | 4, L255-L259.  Prediction of an expanded-to-condensed transition in colloidal crystals. Physical Review Letters, 1994, 72, 2211-2214.  Forward flux sampling-type schemes for simulating rare events: Efficiency analysis. Journal of | 2.9  | 185       |

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| 55 | Calculation of the chemical potential in the Gibbs ensemble. Molecular Physics, 1989, 68, 951-958.   | 0.8 | 178       |
| 56 | Self-consistent dissipative particle dynamics algorithm. Europhysics Letters, 1998, 42, 377-382.   | 0.7 | 167       |
| 57 | Liquid network connectivity regulates the stability and composition of biomolecular condensates with many components. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 13238-13247. | 3.3 | 167       |
| 58 | Numerical study of the phase behavior of rodlike colloids with attractive interactions. Journal of Chemical Physics, 1997, 107, 1551-1564.   | 1.2 | 164       |
| 59 | Evidence for Smectic Order in a Fluid of Hard Parallel Spherocylinders. Physical Review Letters, 1986, 57, 1452-1455.  | 2.9 | 160       |
| 60 | Computer simulation of hard-core models for liquid crystals. Molecular Physics, 1987, 60, 1-20.  | 0.8 | 158       |
| 61 | Crucial role of nonspecific interactions in amyloid nucleation. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 17869-17874.   | 3.3 | 157       |
| 62 | Isostructural solid-solid transition in crystalline systems with short-ranged interaction. Physical Review E, 1994, 50, 4880-4890.   | 0.8 | 155       |
| 63 | Vapor–liquid equilibria of the twoâ€dimensional Lennardâ€Jones fluid(s). Journal of Chemical Physics,<br>1991, 94, 5663-5668.  | 1.2 | 154       |
| 64 | Phase separation in binary hardâ€core mixtures. Journal of Chemical Physics, 1994, 101, 3179-3189.   | 1.2 | 153       |
| 65 | Polymer Crystallization Driven by Anisotropic Interactions. , 0, , 1-35.   |     | 149       |
| 66 | Simulation of homogeneous crystal nucleation close to coexistence. Faraday Discussions, 1996, 104, 93.   | 1.6 | 148       |
| 67 | Simulation of the adhesive-hard-sphere model. Molecular Physics, 1988, 64, 403-424.  | 0.8 | 147       |
| 68 | Can stacking faults in hard-sphere crystals anneal out spontaneously?. Journal of Chemical Physics, 1999, 110, 4589-4592.  | 1.2 | 147       |
| 69 | Rate of homogeneous crystal nucleation in molten NaCl. Journal of Chemical Physics, 2005, 122, 194501.   | 1.2 | 145       |
| 70 | Line Tension Controls Wall-Induced Crystal Nucleation in Hard-Sphere Colloids. Physical Review Letters, 2003, 91, 015703.  | 2.9 | 144       |
| 71 | QUANTITATIVE PREDICTION OF CRYSTAL-NUCLEATION RATES FOR SPHERICAL COLLOIDS: A Computational Approach. Annual Review of Physical Chemistry, 2004, 55, 333-361.  | 4.8 | 144       |
| 72 | Computer simulation of solid-liquid coexistence in binary hard sphere mixtures. Molecular Physics, 1991, 72, 679-697.  | 0.8 | 143       |

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| 74 | Light-induced actuating nanotransducers. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 5503-5507.   | 3.3 | 143       |
| 75 | Onsager's spherocylinders revisited. The Journal of Physical Chemistry, 1987, 91, 4912-4916.  | 2.9 | 142       |
| 76 | Evidence for an Orientationally Ordered Two-Dimensional Fluid Phase from Molecular-Dynamics Calculations. Physical Review Letters, 1979, 42, 1632-1635.   | 2.9 | 139       |
| 77 | Computer simulation of polymer-induced clustering of colloids. Physical Review Letters, 1991, 67, 1110-1113.  | 2.9 | 139       |
| 78 | Monte Carlo Study of the Isotropic-Nematic Transition in a Fluid of Thin Hard Disks. Physical Review Letters, 1982, 49, 1089-1092.  | 2.9 | 138       |
| 79 | Monte Carlo simulation of two-dimensional hard ellipses. Physical Review A, 1990, 42, 2126-2136.  | 1.0 | 137       |
| 80 | Phase diagram of the adhesive hard sphere fluid. Journal of Chemical Physics, 2004, 121, 535.   | 1.2 | 137       |
| 81 | Force Barriers for Membrane Tube Formation. Physical Review Letters, 2005, 94, 068101.  | 2.9 | 137       |
| 82 | Chromatin Unfolding by Epigenetic Modifications Explained by Dramatic Impairment of Internucleosome Interactions: A Multiscale Computational Study. Journal of the American Chemical Society, 2015, 137, 10205-10215. | 6.6 | 135       |
| 83 | The Lennard-Jones potential: when (not) to use it. Physical Chemistry Chemical Physics, 2020, 22, 10624-10633.  | 1.3 | 133       |
| 84 | Harvesting graphics power for MD simulations. Molecular Simulation, 2008, 34, 259-266.  | 0.9 | 131       |
| 85 | Influence of polydispersity on the phase behavior of colloidal liquid crystals: A Monte Carlo simulation study. Journal of Chemical Physics, 1998, 109, 6193-6199.  | 1.2 | 130       |
| 86 | Simulation of Shish-Kebab Crystallite Induced by a Single Prealigned Macromolecule. Macromolecules, 2002, 35, 7172-7174.  | 2.2 | 130       |
| 87 | Competition of Percolation and Phase Separation in a Fluid of Adhesive Hard Spheres. Physical Review Letters, 2003, 90, 135702.   | 2.9 | 130       |
| 88 | Structure factors of polydisperse systems of hard spheres: A comparison of Monte Carlo simulations and Percusâ€"Yevick theory. Journal of Chemical Physics, 1986, 84, 4625-4630.                                      | 1.2 | 127       |
| 89 | Field-Induced Self-Assembly of Suspended Colloidal Membranes. Physical Review Letters, 2009, 103, 228301.   | 2.9 | 127       |
| 90 | Evidence for entropy-driven demixing in hard-core fluids. Physical Review Letters, 1994, 72, 298-300.   | 2.9 | 121       |

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| 91  | Living Clusters and Crystals from Low-Density Suspensions of Active Colloids. Physical Review Letters, 2013, 111, 245702.                                    | 2.9 | 121       |
| 92  | Phase Transitions in Biological Systems with Many Components. Biophysical Journal, 2017, 112, 683-691.   | 0.2 | 121       |
| 93  | The hard ellipsoid-of-revolution fluid. Molecular Physics, 1985, 55, 1193-1215.  | 0.8 | 120       |
| 94  | Calculation of the melting point of NaCl by molecular simulation. Journal of Chemical Physics, 2003, 118, 728-735.   | 1.2 | 119       |
| 95  | Modeling the Phase Diagram of Carbon. Physical Review Letters, 2005, 94, 145701.   | 2.9 | 119       |
| 96  | Phase diagram of Hertzian spheres. Journal of Chemical Physics, 2009, 131, 044514.   | 1.2 | 119       |
| 97  | Numerical study of the phase diagram of a mixture of spherical and rodlike colloids. Journal of Chemical Physics, 1994, 101, 9869-9875.                      | 1.2 | 118       |
| 98  | Quasibinary amorphous phase in a three-dimensional system of particles with repulsive-shoulder interactions. Journal of Chemical Physics, 2008, 129, 064512. | 1.2 | 116       |
| 99  | Computer Simulations of Freezing and Supercooled Liquids. Annual Review of Physical Chemistry, 1980, 31, 491-521.  | 4.8 | 115       |
| 100 | Role of long-range interactions in the melting of a metallic surface. Physical Review B, 1989, 40, 1353-1356.  | 1.1 | 115       |
| 101 | Intramolecular Nucleation Model for Polymer Crystallization. Macromolecules, 2003, 36, 8178-8183.  | 2.2 | 113       |
| 102 | Simulations: The dark side. European Physical Journal Plus, 2013, 128, 1.  | 1.2 | 113       |
| 103 | Molecular dynamics simulation using hard particles. Computer Physics Reports, 1989, 9, 301-353.  | 2.3 | 112       |
| 104 | Partial enthalpies and related quantities in mixtures from computer simulation. Chemical Physics Letters, 1987, 136, 35-41.                                  | 1.2 | 111       |
| 105 | Molecular dynamics study of the dynamical properties of an assembly of infinitely thin hard rods.<br>Molecular Physics, 1983, 49, 503-541.                   | 0.8 | 110       |
| 106 | The crucial effect of early-stage gelation on the mechanical properties of cement hydrates. Nature Communications, 2016, 7, 12106.                           | 5.8 | 109       |
| 107 | Phase separation in binary hard-core mixtures: An exact result. Physical Review Letters, 1992, 68, 3363-3365.  | 2.9 | 108       |
| 108 | An enhanced version of the heat exchange algorithm with excellent energy conservation properties. Journal of Chemical Physics, 2015, 143, 124104.            | 1.2 | 108       |

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| 109 | Effect of Nutrient Diffusion and Flow on Coral Morphology. Physical Review Letters, 1996, 77, 2328-2331.  | 2.9  | 107       |
| 110 | Enhanced stability of layered phases in parallel hard spherocylinders due to addition of hard spheres. Physical Review E, 2000, 62, 3925-3933.  | 0.8  | 107       |
| 111 | Spatiotemporal control and superselectivity in supramolecular polymers using multivalency. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 12203-12208. | 3.3  | 106       |
| 112 | Re-entrant melting as a design principle for DNA-coated colloids. Nature Materials, 2012, 11, 518-522.  | 13.3 | 104       |
| 113 | Designing multivalent probes for tunable superselective targeting. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 5579-5584.                           | 3.3  | 104       |
| 114 | Computing stationary distributions in equilibrium and nonequilibrium systems with forward flux sampling. Journal of Chemical Physics, 2007, 127, 114109.  | 1.2  | 102       |
| 115 | The stability of the AB 13 crystal in a binary hard sphere system. Molecular Physics, 1993, 79, 105-120.  | 0.8  | 101       |
| 116 | Invited Lecture. Columnar ordering as an excluded-volume effect. Liquid Crystals, 1989, 5, 929-940.   | 0.9  | 100       |
| 117 | Crystal Nucleation of Colloidal Suspensions under Shear. Physical Review Letters, 2004, 93, 068303.   | 2.9  | 99        |
| 118 | Waterlike thermodynamic anomalies in a repulsive-shoulder potential system. Physical Review E, 2009, 79, 051202.  | 0.8  | 99        |
| 119 | On the anisotropy of diffusion in nematic liquid crystals: test of a modified affine transformation model via molecular dynamics. Molecular Physics, 1991, 74, 765-774.                             | 0.8  | 98        |
| 120 | Dislocation Unbinding in Dense Two-Dimensional Crystals. Physical Review Letters, 1995, 74, 2519-2522.  | 2.9  | 98        |
| 121 | Evidence for Out-of-Equilibrium Crystal Nucleation in Suspensions of Oppositely Charged Colloids. Physical Review Letters, 2007, 99, 055501.  | 2.9  | 97        |
| 122 | Rational design of self-assembly pathways for complex multicomponent structures. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 6313-6318.             | 3.3  | 97        |
| 123 | COLLOIDAL SYSTEMS: Playing Tricks with Designer "Atoms". Science, 2002, 296, 65-66.   | 6.0  | 96        |
| 124 | A general theory of DNA-mediated and other valence-limited colloidal interactions. Journal of Chemical Physics, 2012, 137, 094108.  | 1.2  | 96        |
| 125 | Nonperiodic solid phase in a two-dimensional hard-dimer system. Physical Review Letters, 1991, 66, 3168-3171.   | 2.9  | 95        |
| 126 | Simulation study of the isotropic-to-nematic transitions of semiflexible polymers. Physical Review E, 1995, 51, 5891-5898.  | 0.8  | 95        |

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| 128 | Calculation of liquid-crystal Frank constants by computer simulation. Physical Review A, 1988, 37, 1813-1816.  | 1.0 | 92        |
| 129 | Speed-up of Monte Carlo simulations by sampling of rejected states. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 17571-17575. | 3.3 | 92        |
| 130 | Superselective Targeting Using Multivalent Polymers. Journal of the American Chemical Society, 2014, 136, 1722-1725.   | 6.6 | 92        |
| 131 | Relative stability of columnar and crystalline phases in a system of parallel hard spherocylinders.<br>Physical Review A, 1991, 43, 4334-4343.                               | 1.0 | 91        |
| 132 | Numerical calculation of the rate of homogeneous gas–liquid nucleation in a Lennard-Jones system. Journal of Chemical Physics, 1999, 110, 1591-1599.                         | 1.2 | 91        |
| 133 | Discrete solution of the electrokinetic equations. Journal of Chemical Physics, 2004, 121, 973-986.  | 1.2 | 91        |
| 134 | Structural, dynamical, electronic, and bonding properties of laser-heated silicon: Anab initiomolecular-dynamics study. Physical Review B, 1997, 56, 3806-3812.              | 1.1 | 90        |
| 135 | Physical determinants of the self-replication of protein fibrils. Nature Physics, 2016, 12, 874-880.   | 6.5 | 90        |
| 136 | Crystallization of weakly charged colloidal spheres: a numerical study. Journal of Physics Condensed Matter, 2002, 14, 7667-7680.  | 0.7 | 89        |
| 137 | Numerical Simulation of Crystal Nucleation in Colloids. Advances in Polymer Science, 0, , 149-208.   | 0.4 | 87        |
| 138 | Homogeneous Bubble Nucleation Driven by Local Hot Spots: A Molecular Dynamics Study. Journal of Physical Chemistry B, 2009, 113, 3776-3784.                                  | 1.2 | 86        |
| 139 | A parameter-free, solid-angle based, nearest-neighbor algorithm. Journal of Chemical Physics, 2012, 136, 234107.   | 1.2 | 86        |
| 140 | Soft condensed matter. Physica A: Statistical Mechanics and Its Applications, 2002, 313, 1-31.   | 1.2 | 84        |
| 141 | Gibbs, Boltzmann, and negative temperatures. American Journal of Physics, 2015, 83, 163-170.   | 0.3 | 83        |
| 142 | Simulation of diffusion in a two-dimensional lattice-gas cellular automaton: A test of mode-coupling theory. Physical Review Letters, 1989, 63, 2165-2168.                   | 2.9 | 82        |
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| 146 | Numerical Evidence for Nucleated Self-Assembly of DNA Brick Structures. Physical Review Letters, 2014, 112, 238103.  | 2.9  | 82        |
| 147 | The effect of chain stiffness on the phase behaviour of isolated homopolymers. Journal of Chemical Physics, 1998, 108, 2134-2142.  | 1.2  | 81        |
| 148 | Algebraic Decay of Velocity Fluctuations in a Confined Fluid. Physical Review Letters, 1997, 78, 3785-3788.  | 2.9  | 80        |
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| 150 | Monte Carlo study of hard pentagons. Physical Review E, 2005, 71, 036138.  | 0.8  | 80        |
| 151 | Free energy changes on freezing and melting ductile metals. Molecular Physics, 1993, 80, 801-814.  | 0.8  | 79        |
| 152 | Transverse interlayer order in lyotropic smectic liquid crystals. Physical Review E, 1995, 52, R1277-R1280.  | 0.8  | 79        |
| 153 | Location of melting point at 300 K of nitrogen by Monte Carlo simulation. Journal of Chemical Physics, 1990, 92, 7570-7575.  | 1.2  | 75        |
| 154 | Recent advances in the modelling and simulation of electrokinetic effects: bridging the gap between atomistic and macroscopic descriptions. Physical Chemistry Chemical Physics, 2010, 12, 9566. | 1.3  | 75        |
| 155 | Numerical study of DNA-functionalized microparticles and nanoparticles: Explicit pair potentials and their implications for phase behavior. Journal of Chemical Physics, 2011, 134, 084702.      | 1.2  | 75        |
| 156 | Mobile Linkers on DNA-Coated Colloids: Valency without Patches. Physical Review Letters, 2014, 113, 128303.  | 2.9  | 75        |
| 157 | Liquid-crystalline ordering of antimicrobial peptide–DNA complexes controls TLR9 activation. Nature Materials, 2015, 14, 696-700.  | 13.3 | 75        |
| 158 | Protein Shape and Crowding Drive Domain Formation and Curvature in Biological Membranes.<br>Biophysical Journal, 2008, 94, 640-647.  | 0.2  | 74        |
| 159 | Design Rule for Colloidal Crystals of DNA-Functionalized Particles. Physical Review Letters, 2011, 107, 045902.  | 2.9  | 74        |
| 160 | Kinetics of spontaneous filament nucleation via oligomers: Insights from theory and simulation. Journal of Chemical Physics, 2016, 145, 211926.  | 1.2  | 73        |
| 161 | Self-Assembly of Structures with Addressable Complexity. Journal of the American Chemical Society, 2016, 138, 2457-2467.   | 6.6  | 73        |
| 162 | Computational methodology for solubility prediction: Application to the sparingly soluble solutes. Journal of Chemical Physics, 2017, 146, 214110.   | 1.2  | 71        |

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| 164 | Elastic constants of hard-sphere crystals. Physical Review Letters, 1987, 59, 1169-1169.  | 2.9 | 70        |
| 165 | Pore nucleation in mechanically stretched bilayer membranes. Journal of Chemical Physics, 2005, 123, 154701.  | 1.2 | 68        |
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| 167 | Numerical Calculation of Granular Entropy. Physical Review Letters, 2014, 112, 098002.  | 2.9 | 68        |
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| 170 | A Simple Lattice Model That Captures Protein Folding, Aggregation and Amyloid Formation. PLoS ONE, 2014, 9, e85185.   | 1.1 | 66        |
| 171 | Calculation of partial enthalpies of an argon-krypton mixture by NPT molecular dynamics. Chemical Physics, 1989, 129, 213-224.  | 0.9 | 65        |
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| 173 | Kinetic Monte Carlo simulations of the growth of polymer crystals. Journal of Chemical Physics, 1999, 110, 2692-2702.   | 1.2 | 65        |
| 174 | Phase Behavior and Selectivity of DNA-Linked Nanoparticle Assemblies. Physical Review Letters, 2004, 92, 068302.  | 2.9 | 65        |
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