

David L. Freeman - Publication List

Journal Articles

1. D.L. Freeman, "The Interaction of Rare Gas Atoms with Graphite Surfaces. I. Single Adatom Energies," J. Chem. Phys., **62**, 941-949 (1975).
2. D.L. Freeman, "The Interaction of Rare Gas Atoms with Graphite Surfaces. II. Adatom-Adatom Potentials," J. Chem. Phys., **62**, 4300-4307 (1975).
3. D.L. Freeman and M. Karplus, "Many-body Perturbation Theory Applied to Molecules: Analysis and Correlation Energy Calculation for Li₂, N₂, and H₃," J. Chem. Phys., **64**, 2641- 2659 (1976).
4. D.L. Freeman, "The Coupled-cluster Expansion Applied to the Electron Gas: Inclusion of Ring and Exchange Effects," Phys. Rev. B **15**, 5512-5521 (1977).
5. D.L. Freeman, "Application of the Coupled-cluster Expansion to the Correlation Energy of Electrons in Two-dimensional and Quasi-two-dimensional Systems," Solid State Commun., **26**, 289-293 (1978).
6. N.C. Dutta and D.L. Freeman, "A Numerical Solution to the Integral Equation for Atomic Pair Energies," Mol. Phys. **36**, 655- 667 (1978).
7. J.D. Pack, H.J. Monkhorst, and D.L. Freeman, "Lithium Crystal Properties from High-quality Hartree-Fock Wave Functions," Solid State Commun., **29**, 723-725 (1979).
8. J.D. Pack, H.J. Monkhorst, and D.L. Freeman, "On the X-ray Scattering Factors of Metallic and Molecular Hydrogen Crystals," Solid State Commun., **29**, 735-737 (1979).
9. D.L. Freeman, "Coupled-cluster Summation of the Particle-Particle Ladder Diagrams for the Two-dimensional Electron Gas," J. Phys. C.: Solid State Physics, **16**, 711-727 (1983).
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11. D.L. Freeman and J.D. Doll, "Langevin Analysis of the Diffusion Model for Surface Chemical Reactions," J. Chem. Phys., **79**, 2343-2350 (1983).

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13. J.D. Doll and D.L. Freeman, "A Monte-Carlo Method for Quantum-Boltzmann Statistical Mechanics," *J.Chem. Phys.*, **80**, 2239-2240 (1984).
14. D.L. Freeman and J.D. Doll, "A Monte Carlo-Method for Quantum-Boltzmann Statistical Mechanics Using Fourier Representations of Path Integrals," *J. Chem. Phys.*, **80**, 5709-5718 (1984).
15. D.L. Freeman and J.D. Doll, "Quantum Monte-Carlo Study of the Thermodynamic Properties of Argon Clusters: The Homogeneous Nucleation of Argon in Argon Vapor and 'Magic Number' Distributions in Argon Vapor," *J. Chem. Phys.*, **82**, 462-471 (1985).
16. J.D. Doll, R.D. Coalson, and D.L. Freeman, "Fourier Path-Integral Monte-Carlo Methods: Partial Averaging," *Phys. Rev. Lett.*, **55**, 1-4 (1985).
17. J.D. Doll and D.L. Freeman, "A Comparison of Energy Estimators Used in Quantum Monte-Carlo Calculations," *J. Chem. Phys.*, **83**, 768-771 (1985).
18. D.L. Freeman, R.D. Coalson and J.D. Doll, "Fourier Path Integral Methods: A Model Study of Simple Fluids," *J. Stat. Phys.*, **43**, 931-934 (1986).
19. R.D. Coalson, D.L. Freeman and J.D. Doll, "Partial Averaging Approach to Fourier Coefficient Path Integration," *J. Chem. Phys.*, **85**, 4567-4583 (1986).
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21. J. D. Doll and D.L. Freeman, "A Time for Noise: Random Methods and Chemical Theory," *Chem. Design Auto. News*, **2**, 1-4 (1987).
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Books

F.E. Harris, H.J. Monkhorst and D.L. Freeman, *Algebraic and Diagrammatic Methods in Many-Fermion Theory* (Oxford University Press, New York, 1992)