

Curriculum Vitae

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Born: 13 October, 1938, Kampen, the Netherlands

Education

PhD, Theoretical Chemistry, University of Groningen, 1968, the Netherlands

Professional Record

- September 2000–June 2001, sabbatical, University of California, Irvine, Physics and Astronomy Department, and TriAlpha Energy, Inc
- 1983–present, Professor of Physics and Chemistry, University of Florida, Gainesville, Florida.
- 1982–1983, Associate Director of the Quantum Theory Project.
- 1982–1983, Associate Professor of Physics and Chemistry, University of Florida, Gainesville, Florida.
- 1978–1982, Associate Professor, Department of Physics, University of Florida, Gainesville, Florida.
- 1975–1978, Associate Research Professor, Physics Department, University of Utah, Salt Lake City, Utah.
- Summer 1974, Visiting Professor, Aarhus University, Aarhus, Denmark.
- 1973–1975, Assistant Research Professor, Physics Department, University of Utah, Salt Lake City, Utah.
- 1972–1973, Senior Research Associate, Physics Department, University of Utah, Salt Lake City, Utah.

- 1971–1972, Research Fellow, Institute “Rudjer Boskovic,” Zagreb, Croatia, Yugoslavia.
- 1968–1971, Research Associate and Associate Instructor, Physics Department, University of Utah, Salt Lake City, Utah.
- 1965–1968, Research Assistant, University of Groningen, The Netherlands.

Awards and Honors

1. Hercules Powder Company Award for Outstanding Research in Physics, 1970
2. Fellow, American Physical Society, 1991
3. March 2003: Passed 2,000 citations mark of paper Special Points for Brillouin Zone Integrations, By H. J. Monkhorst and J. D. Pack, Phys.Rev B13, 5188(1976)
4. June 2005: Above article cited in Physics Today article “Citation Statistics from 110 Years of *Physical Review*: positions 11 and 6 on lists articles with “More than 1,000 citations” and “Hot Papers”, respectively

Publications

1. “SCMO Calculations on the Tetramethyl p-phenylene Diamine System,” H.J. Monkhorst and J. Kommandeur, J. Chem. Phys. **47**, 391 (1967).
2. “Magnetic Transition of Wurster’s Blue Perchlorate. II. Theoretical Considerations,” H.J. Monkhorst, G.T. Pott and J. Kommandeur, J. Chem. Phys. **47**, 401 (1967).
3. “Activation Energy for Interconversion of Enantiomers Containing an Asymmetric Carbon Atom without Breaking Bonds,” H.J. Monkhorst, Chem. Commun. (1968), 1111.
4. “Inner-Shell/Outer-Shell Interaction in Approximate LCAO-SCF Calculations,” H.J. Monkhorst, Thesis, University of Groningen (1968).
5. “Geometrical Changes During the Internal Rotation in Ethane,” H.J. Monkhorst, Chem. Phys. Letters **3**, 289 (1969).
6. “Comments on ‘Geometrical Changes During the Internal Rotation in Ethane,’” H.J. Monkhorst, Chem. Phys. Letters **4**, 119 (1969).
7. “Multicenter Integrals via Gaussian Expansion of Slater-Orbital Products,” H.J. Monkhorst and F.E. Harris, Chem. Phys. Letters **3**, 537 (1969).
8. “Lattice Sums and Madelung Constants,” F.E. Harris and H.J. Monkhorst, Chem. Phys. Letters **4**, 181 (1969).

9. "Complete Calculations of the Electronic Energies of Solids," F.E. Harris and H.J. Monkhorst, *Phys. Rev. Letters* **23**, 1026 (1969).
10. "Application of New Madelung Summation Method to Close-Packed Alkali-Halide Structures," F.E. Harris and H.J. Monkhorst, *J. Chem. Phys.* **52**, 4310 (1970).
11. "Electronic-Structure Studies of Solids. I. Fourier Representation Method for Madelung Sums," F.E. Harris and H.J. Monkhorst, *Phys. Rev.* **B2**, 4400 (1970).
12. "Toward Hartree-Fock Calculations for Simple Crystals," F.E. Harris and H.J. Monkhorst, *Computational Methods in Band Theory*, P.M. Marcus, J.F. Janak and A.R. Williams, Eds. (Plenum Press, New York, 1971), pp. 517-541.
13. "'Exact' Hartree-Fock Calculations for Atomic-Hydrogen Crystal," F.E. Harris and H.J. Monkhorst, *Solid State Comm.* **9**, 1449 (1971).
14. "'Exact' Hartree-Fock Results for Atomic-Hydrogen Crystals," F.E. Harris, L. Kumar and H.J. Monkhorst, *Int. J. Quantum Chm.* **5**, 527 (1971).
15. "Accurate Calculation of Fourier Transform of Two-Center Slater Orbital Products," H.J. Monkhorst and F.E. Harris, *Int. J. Quantum Chem.* **6**, 601 (1972).
16. "The Exact Hartree-Fock Problem for Lithium Crystals: A Preliminary Report," F.E. Harris, L. Kumar and H.J. Monkhorst, *J. de Physique* **33** (C3), 99 (1972).
17. "On Localized Orbitals in Infinite, Periodic Systems," H.J. Monkhorst, *Chem. Phys. Letters* **17**, 461 (1972).
18. "Electronic-Structure Studies of Solids. II. 'Exact' Hartree-Fock Calculations for Cubic Atomic-Hydrogen Crystals," F.E. Harris, L. Kumar and H.J. Monkhorst, *Phys. Rev.* **B7**, 2850 (1973).
19. "Slater Orbital Molecular Integrals with Numerical Fourier Transform Methods. I. (Coplanar) Multicenter Exchange Integrals over 1s Orbitals," A Graovac, H.J. Monkhorst and T. Zivkovic, *Int. J. Quantum Chem.* **7**, 233 (1973).
20. "Random-Phase-Approximation Correlation Energy in Metallic Hydrogen Using Hartree-Fock Bloch Functions," H.J. Monkhorst and J. Oddershede, *Phys. Rev. Letters* **30**, 797 (1973).
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25. "Comments on 'Self-Consistent Pair Correlation Approach to Many-Body Effects in Metals,'" H.J. Monkhorst, *Phys. Rev.* **B12**, 792 (1975).
26. "Note on Computation of the Fourier Transforms of Lattice Sums over Slater-Type Orbital Products," H.J. Monkhorst and A. Graovac, *Ann. Soc. Sci. Bruxelles* **89**, 252 (1975).
27. "Exact LCAO Method for Two-Dimensional Crystals Using Fourier Transform Techniques," H.J. Monkhorst.
28. "On Special Points for Brillouin Zone Integrations," H.J. Monkhorst and J.D. Pack, *Phys. Rev.* **B13**, 5188 (1976).
29. "Electronic-Structure Studies of Solids. V. Rigorous Hartree-Fock Treatment of Metallic Hydrogen Using a Plane-Wave Basis," L. Kumar, H. J. Monkhorst and J. Oddershede, *Int. J. Quantum Chem.* **12**, 145 (1977).
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37. "No Linear Dependence and Multi-Center Integral Problems in Momentum Space Quantum Chemistry," H.J. Monkhorst and B. Jeziorski, *J. Chem. Phys.* **71**, 5268 (1979).
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