

Resumé

Roy McWeeny

Born 19 May 1924, Bradford, Yorkshire, U.K.

Education

- 1929-42 State Primary and Secondary Schools. Won scholarships to Royal College of Science, London (not taken up) and University of Leeds
- 1942-45 University of Leeds, Department of Physics. Graduated with First Class Honours; awarded Frank Parkinson Research Scholarship. Drafted into work for Ministry of Defence
- 1945-46 University of Leeds, Department of Ceramics, research on theory of thermal stress in brittle materials
- 1946-48 University College, Oxford. Worked under supervision of C A Coulson on 'Momentum Space Solutions of the Schrödinger Wave Equation'

Appointments held

- 1948-57 Lecturer in Physical Chemistry, King's College, University of Durham, UK
- 1953-54 Visiting Scientist, Department of Physics, MIT (Mass. USA), worked in Solid-State and Molecular Theory Group of J C Slater
- 1957-60 Lecturer in Mathematics, Physics and Chemistry (Faculty appointment with equal affiliation to three Departments), University of Keele, UK
- 1960-61 Associate Director, Quantum Chemistry Institute, University of Uppsala, Sweden
- 1961-65 Reader in Quantum Theory, University of Keele, UK
- 1965-66 Professor of Theoretical Physics and Theoretical Chemistry, University of Keele, UK
- 1966-82 Professor of Theoretical Chemistry, University of Sheffield (Head of Department of Chemistry 1976-79), UK
- 1982-97 Professore Ordinario di Chimica Teorica, Università di Pisa, Italy

Visiting Professorships etc. -- a selection

- 1969 Polytechnic Institute of Brooklyn N.Y. – Distinguished Visiting Lecturer for the 1969 Science Development Lectures
- 1969 Visiting Professor (Japan Society for the Promotion of Science), Universities of Tokyo, Kyoto, Hokkaido, and elsewhere

- 1970 Visiting Professor (British Council/Netherlands Government), Universities of Amsterdam, Leiden, Groningen
- 1972 British Council Visiting Lecturer, Universities of Strasbourg and Paris
- 1973 Visiting Professor, Israel Institute of Technology, Haifa
- 1974 Visiting Professor, University of Nijmegen, Netherlands
- 1975 Guest Lecturer, Polish Academy of Sciences, Universities of Warsaw and Crakovia
- 1984 Visiting Scientist, Danish Chemical Society, University of Copenhagen
- 1994 Visiting Professor, Indian Association for the Cultivation of Science -- gave the first Basu Memorial Lecture, Calcutta

General

- Member of the International Academy of Quantum Molecular Science (elected 1973)¹
- Member of the European Academy of Arts, Sciences and the Humanities (elected 1987)
- Author of seven scientific monographs:
 - Symmetry: An Introduction to Group Theory (Pergamon, Oxford, 1963; reprinted by Dover, 2001)
 - Spins in Chemistry (Academic Press, New York, 1970; reprinted by Dover 2004)
 - Methods of Molecular Quantum Mechanics (with B.T.Sutcliffe) (Academic, London, 1969) -- developed from lectures delivered in Milan and published by Accademia Nazionale dei Lincei, Rome, 1964
 - Quantum Mechanics -- Principles and Formalism (Pergamon, Oxford, 1973; reprinted by Dover, 2002)
 - Quantum Mechanics -- Methods and Basic Applications (Pergamon, Oxford, 1973)
 - Coulson's Valence (an updated version of Coulson's famous book of 1951) (Oxford University Press, 1979)
 - Methods of Molecular Quantum Mechanics 2nd Ed (Academic, London, 1989, 1993) -- a rewritten and greatly expanded form of the 1st Edition

There are various translations, into German, Japanese, Polish and Russian

¹ The Academy was founded in 1967: regular membership (under 65 years of age) is limited by statute to 35 “chosen among the scientists of all countries who have distinguished themselves by their scientific work, their role as pioneer or leader of a school in the broad field of application of quantum mechanics to the study of molecules and macromolecules”

- Author of contributed chapters in a large number of multi-author volumes, most recently in the Handbook of Molecular Physics and Quantum Chemistry (3 vols.) (Wiley, Chichester, 2003)
- Long-serving member of various Editorial Boards, including those of Molecular Physics, Chemical Physics Letters, and International Journal of Quantum Chemistry.
- Other publications include about 150 research papers in the general area of molecular physics and quantum chemistry, mostly single-author works published in prestigious international journals.
- In 1996 a celebratory volume of International Journal of Quantum Chemistry (Vol.60, 634 pp.) was published as a 'festschrift' in honour of Roy McWeeny: it contains original papers contributed by 132 scientists from 19 countries.