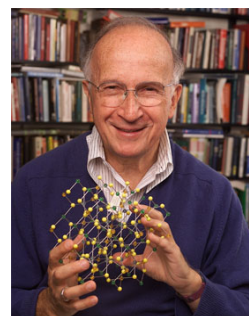




Curriculum Vitae Prof. Dr. Roald Hoffmann



Name: Roald Hoffmann

Born: 18 July 1937

Major Scientific Interests: the electronic structure of molecules, molecular orbitals, theory of the shapes, spectra, and reactions of molecules, organic and inorganic, and extended structures, the behaviour of matter under high pressure, chemical education, literature

Roald Hoffmann is an American chemist and author. For his research on the course of chemical reactions, he received the Nobel Prize in Chemistry in 1981 along with Japanese scientist Kenichi Fukui. He is also a writer, of poems, palsy, and nonfiction, constructing his own land between chemistry, philosophy and poetry.

Academic and Professional Career

1996	Frank H. T. Rhodes Professor of Humane Letters, Cornell University, Ithaca, USA
1974	John A. Newman-Professor of Physical Science, Cornell University
1968	Professor of Chemistry, Cornell University
1965	Associate Professor, Cornell University
1962 - 1965	Junior Fellow, Harvard University, Cambridge, USA
1962	Ph.D., Harvard University
1960 - 1961	Guest student at Moscow University
1958	B.A. in Chemistry, Columbia University, New York, USA
1955 - 1958	Studies in Chemistry, Columbia University

Functions in Scientific Societies and Committees

- 1987 - 1990 Member of the Council of the US National Academy of Sciences
- 1970 - 1974 Member of the Advisory Panel for Chemistry of the National Science Foundation, USA
- Member of the Board of Overseers of the Chemical Heritage Foundation, USA

Honours and Awarded Memberships

- 2017 Primo Levi Award of the Society of German Chemists (GDCh) and the Italian Chemical Society (SCI)
- 2011 Otto-Warburg-Preis, Universitaet Bayreuth
- 2011 Lomonossow Gold Medal of the Russian Academy of Sciences
- 2009 Grady-Stack Award for Interpreting Chemistry for the Public
- 2008 Lichtenberg-Medaille of the Göttingen Academy of Sciences
- 2006 Gold Medal of the American Institute of Chemists (AIC)
- since 2002 Honorary Member of the Chemical Society of Japan
- since 2000 Member of the German National Academy of Sciences Leopoldina
- since 1999 Honorary Member of the Gesellschaft Deutscher Chemiker
- since 1998 Corresponding Member of the North Rhine-Westphalian Academy of Sciences
- 1996 Pimentel Award in Chemical Education of the American Chemical Society
- 1994 Centennial Medal of the Graduate School of Arts and Sciences, Harvard University
- 1990 Priestley Medal of the American Chemical Society
- since 1989 Honorary Member of the Royal Institution
- since 1988 Foreign Member of the Finnish Academy of Science
- since 1988 Foreign Member of the Academy of Sciences of UdSSR
- 1986 - 1987 Tage Erlander-Professor of the Swedish Research Council, Stockholm, Sweden
- 1986 Dickinson College Award in memory of Joseph Priestley
- 1986 National Academy of Sciences Award in the Chemical Sciences
- since 1985 Foreign Member of the Royal Swedish Academy of Sciences
- since 1984 Foreign Member of the Royal Society, London, UK
- since 1984 Member of the American Philosophical Society
- 1983 National Medal of Science

1982	Prize in Inorganic Chemistry of the American Chemical Society (ACS)
1981	Nichols medal of the New York Section of the American Chemical Society
1981	Nobel Prize in Chemistry (together with Kenichi Fukui)
1978	Guggenheim Fellowship
since 1978	Member of the International Academy of Quantum Molecular Sciences
1973	Arthur C. Cope Award in Organic Chemistry der ACS (with R.B. Woodward)
since 1972	Member of the US National Academy of Sciences
since 1971	Member of the American Academy of Arts and Sciences
1970	Prize of the International Academy of Quantum Molecular Science
1969	Award in Pure Chemistry of the American Chemical Society (ACS)

Roald Hoffmann received more than 30 Honorary Doctorates.

Major Scientific Interests

Roald Hoffmann is chemist and author. For his research on the course of chemical reactions, he received the Nobel Prize in Chemistry along with Japanese scientist Kenichi Fukui. Together with Robert B. Woodward, he developed the "Woodward-Hoffmann rules" a set of quantum-mechanically based rules with which the ease or difficulty of certain chemical reactions can be predicted.

Hoffmann's focus is applied theoretical chemistry, which develops ways of translating the results of mathematical or computer-simulated methods to calculate electronic structure into simple orbital-based explanations used in all areas of chemistry.

Hoffmann used quantum mechanics and the wave properties of matter to make predictions. The basis for the development of the Woodward-Hoffmann rules was the total synthesis of vitamin B12, carried out by R.B. Woodward. Unusual experimentally observed ring-closure reactions led Woodward and Hoffman to their "symmetry rules", which are an important aid in predicting suitable conditions for certain organic reactions (pericyclic reactions) and the stereochemistry (three-dimensional structure of atoms) of their products.

Throughout his scientific career, Hoffmann has always considered himself a teacher; the pedagogical perspective is important to him, in particular in his research. He is consistently reflective on the way chemistry is done and its function in culture and society. Such reflection, in numerous essays and books, has brought him close to philosophy of science and ethics. As an author, he published poems, essays, books and plays, thus forming a bridge between science, philosophy and literature.