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BIOGRAPHY

Professional experience (cont.)

Linus Pauling - Nobel Laureate

Professor of Chemistry, Chairman of the Division of Chemistry and Chemical Engineering, and Director of the Gates and Crellin Laboratories of Chemistry, California Institute of Technology, Pasadena, California.

Born in Portland, Oregon, February 28, 1901

Married, four children

Education, degrees, etc.

Grammar school, Condon and Portland, Oregon

High school, Portland, Oregon

College: B.S. in Chem. Eng., Oregon State College, 1922

Ph.D., California Institute of Technology, 1925

Sc.D., Oregon State College, 1933; University of

Chicago, 1941; Princeton University, 1946;

Cambridge University, University of London, Yale

University, 1947; Oxford University, 1948

M.A. Oxford University, 1948

D. Hon. Caus., University of Paris, 1948; University of Toulouse, 1949

Doctor of Humanities, University of Tampa, 1949

U.J.D., University of New Brunswick, 1950

Postdoctoral study at the Universities of Munich, Copenhagen, and Zurich, 1926-27

Professional experience:

Full-time assistant in quantitative analysis, Oregon State College, 1919-20; part-time assistant in chemistry and in mechanics and materials, Oregon State College, 1920-22.

Graduate assistant, California Institute of Technology, 1922-23; teaching fellow, 1923-25; research associate, 1925-26.

National Research Fellow in Chemistry, 1925-26.

Fellow of the John Simon Guggenheim Memorial Foundation, 1926-27.

Assistant professor of chemistry, California Institute of Technology, 1927-29; associate professor, 1929-31; professor of chemistry, 1931-. Chairman of the Division of Chemistry and Chemical Engineering and Director of the Gates and Crellin Laboratories of Chemistry, 1937-.

Member of the Institute's Executive Committee, 1945-48.

Honorary Member, Swiss Chemical Society

Corresponding Foreign Member, Accademia Benedettina (Academy of Sciences of Bologna)

Correspondent, Institute of France, Academy of Sciences (Section of Mineralogy)

Membership in professional societies (cont.):  
Professional experience (cont.)

Honorary Fellow, Indian Academy of Sciences.  
Lecturer in chemistry and physics at the University of California during spring of each of the years 1929-33; lecturer in chemistry and physics, Massachusetts Institute of Technology, spring 1932.  
George Fisher Baker Lecturer in Chemistry at Cornell University, September 1937 to February 1938.  
Silliman Lecturer, Yale University, 1947.  
Eastman Professor at Balliol College, Oxford, January to June, 1948.  
First Treat B. Johnson Lecturer, Yale University, 1953.  
Foster Lecturer, University of Buffalo, 1953.  
Honorary President, Section on Biosynthesis of Proteins, Second International Congress of Biochemistry, Paris, 1952.  
Participant, Ninth Triennial Solvay Congress, 1953.  
First Charles Lyell Lecturer, Exeter College, Oxford, 1948.

Honors:

Nobel Prize in Chemistry, 1954. Awarded for "research into the nature of the chemical bond and its application to the elucidation of the structure of complex substances."  
First recipient of the American Chemical Society Award in Pure Chemistry (Langmuir Prize), 1931.  
William H. Nichols Medal of the New York Section of the American Chemical Society, 1941.  
Willard Gibbs Medal of the Chicago Section of the American Chemical Society, 1946.  
Theodore William Richards Medal of the Northeast Section of the American Chemical Society, 1947.  
Davy Medal of the Royal Society, 1947.  
Medal for Merit, 1948.  
First recipient of the Gilbert Newton Lewis Medal of the California Section of the American Chemical Society, 1951.

Membership in professional societies:

National Academy of Sciences (Chairman, Chemistry Section, 1940-43.)  
American Philosophical Society (Vice-President, 1951-54).  
American Academy of Arts and Sciences.  
American Chemical Society (President, 1949).  
American Association for the Advancement of Science (President, Pacific Division, 1941-46).  
Fellow, American Physical Society.  
International Society of Hematology.  
Honorary Fellow of the Chemical Society of London.  
Honorary Member, Royal Institution of Great Britain.  
Foreign Member, The Royal Society.  
Honorary Member, Oxford Natural Science Club  
Honorary Member, Swiss Chemical Society  
Corresponding Foreign Member, Accademia Benedettina (Academy of Sciences of Bologna)  
Correspondent, Institute of France, Academy of Sciences (Section of Mineralogy)

Membership in professional societies (cont.):

Honorary Fellow, Indian Academy of Sciences.  
Honorary Fellow, Royal Society of Liege  
Foreign Member, Norwegian Academy of Arts and Letters.  
Corresponding Member, Bavarian Academy of Sciences,  
Mathematics-Natural Science Class.  
Corresponding Member, Lisbon Academy of Science.  
Honorary Member, Accademia Gioenia di Scienze Naturali di  
Catania, Sicily.

War activities:

During World War II member of Division 8 (Explosives Division) of the National Defense Research Committee; member of Western Advisory Committee of the Committee on Medical Research; member of the Research Board for National Security; member of the Medical Advisory Committee in Preparation of the Bush Report.

Publications:

Books

The Structure of Line Spectra, with S. Goudsmit, 1930.  
Introduction to Quantum Mechanics, with Applications to  
Chemistry, with E. Bright Wilson, Jr., 1935.  
The Nature of the Chemical Bond, and the Structure of Molecules  
and Crystals, 1939; second edition, 1940.  
General Chemistry, 1947; second edition, 1953.  
College Chemistry, 1950.

Scientific papers

About 300 scientific publications in the fields of experimental determination of the structure of crystals by the diffraction of x-rays and the interpretation of these structures in terms of the radii and other properties of atoms; the application of quantum mechanics to physical and chemical problems, including dielectric constants, x-ray doublets, momentum distribution of electrons in atoms, rotational motion of molecules in crystals, van der Waals forces, etc.; the structure of metals and inter-metallic compounds; the nature of the chemical bond, including the resonance phenomenon in chemistry; the experimental determination of the structure of gas molecules by the diffraction of electrons; the structure and properties of hemoglobin and related substances; the structure of proteins; the structure of antibodies and the nature of serological reactions; and miscellaneous subjects, such as the development of an instrument for determining the partial pressure of oxygen in a gas.