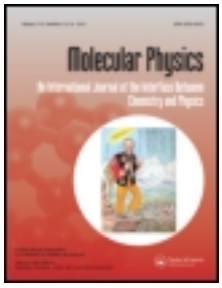

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DUDLEY ROBERT HERSCHBACH

Frank B. Baird, Jr. Professor of Science, Emeritus, Harvard University
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Dudley Herschbach was born in San Jose, California (1932) and received his BS degree in Mathematics (1954) and MS in Chemistry (1955) at Stanford University, followed by an A.M. degree in Physics (1956) and PhD in Chemical Physics (1958) at Harvard. After a term as Junior Fellow in the Society of Fellows at Harvard (1957–1959), he was a member of the Chemistry Faculty at the University of California, Berkeley (1959–1963), before returning to Harvard as Professor of Chemistry (1963), where he became Baird Professor of Science (1976–2003) and is now Emeritus. In 2005 he joined the Department of Physics and Astronomy at Texas A & M University, visiting each year in the Fall semester.

He is a Fellow of the American Academy of Arts and Sciences, the National Academy of Sciences, the American Philosophical Society, and the Royal Chemical Society of Great Britain; also an honorary life member of the Association for Women in Science, and the New York Academy of Sciences. His awards include the Pure Chemistry Prize of the American Chemical Society (1965), the Linus Pauling Medal (1978), the Michael Polanyi Medal (1981), the Irving Langmuir Prize of the American Physical Society (1983), the Nobel Prize in Chemistry (1986), jointly with Yuan T. Lee and John C. Polanyi, the National Medal of Science (1991), the Jaroslav Heyrovsky Medal (1992), the Sierra Nevada Distinguished Chemist Award (1993), the Kosolapoff Award of the ACS (1994), and the William Walker Prize (1994). He was named by *Chemical & Engineering News* among the 75 leading contributors to the chemical enterprise in the past 75 years (1998). Recently he was awarded the Gold Medal of the American Institute of Chemists (2011).

Herschbach's recent research is chiefly devoted to methods for slowing, trapping, and orienting gas molecules, to gain access to quantum phenomena that arise at long de Broglie wavelengths; theoretical analysis of quantum entanglement, pertinent to design of quantum computers; a dimensional scaling approach to strongly correlated many-particle interactions; simulation of molecular motors, particularly enzyme-DNA systems; and molecular transformations induced by high-pressure, particularly related to formation of hydrocarbons in the earth's mantle.

He is engaged in several efforts to improve K-16 science education and public understanding of science. He served for 18 years as Chair of the Board of Trustees of the Society for Science and the Public, which publishes *Science News* and conducts the Intel Science Talent Search and the Intel International Science and Engineering Fair. He has also appeared in several TV and radio programs designed to foster appreciation of science and has given many lectures with that aim to school audiences, alumni clubs, and the like. Some recent titles: 'Einstein as a Student'; 'The Scientific Education of John Adams'; 'Benjamin Franklin's Scientific Amusements'; 'The Impossible Takes a Little Longer'.

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