

Richard N. Zare: Curriculum Vitae

(abridged version)

BIOGRAPHICAL INFORMATION

Born: Cleveland, Ohio, November 19, 1939
Married: Susan Shively Zare
Children: Bethany Jean; Bonnie Sue; Rachel Amdur

EDUCATION AND PROFESSIONAL EXPERIENCE

1961 B.A. (Chemistry and Physics), Harvard University
1961--1963 Postgraduate work, University of California at Berkeley
1964 Ph.D. (Chemical Physics), Harvard University, (NSF Predoctoral Fellow)
1964--1965 Postdoctoral Research Associate, Joint Institute for Laboratory Astrophysics (JILA), University of Colorado
1965--1966 Assistant Professor, Department of Chemistry, Massachusetts Institute of Technology
1966--1968 Assistant Professor, Department of Physics and Astrophysics, University of Colorado
1968--1969 Associate Professor, Department of Physics and Astrophysics and Department of Chemistry, University of Colorado
1969--1977 Professor, Department of Chemistry, Columbia University
1975--1977 Higgins Professor of Natural Science, Columbia University
1977-- Professor, Department of Chemistry, Stanford University
1980--1985 Shell Distinguished Professor of Chemistry, Stanford University
1982 Christensen Fellow, St. Catherine's College, Oxford University
1984--1986 Stanford University Fellow
1985-- Fellow Adjoint, Joint Institute for Laboratory Astrophysics, University of Colorado
1987-- Marguerite Blake Wilbur Professor in Natural Science, Stanford University
1992-- Professor of Physics, Stanford University
2006-- Howard Hughes Medical Institute Professor, Stanford University

HONORS AND AWARDS

Priestley Medal, American Chemical Society, to be awarded in March, 2010

Presidential Award for Excellence in Science, Mathematics, and Engineering Mentoring, U.S. Office of Science and Technology Policy, 2009

F. A. Cotton Medal for Excellence in Chemical Research, Texas A&M University, Department of Chemistry, and Texas A&M Section, American Chemical Society, 2009

George C. Pimentel Award in Chemical Education, American Chemical Society, 2008

H. Julian Allen Award, in recognition of co-authorship of "UV Irradiation of Polycyclic Aromatic Hydrocarbons in Ices: Production of Alcohols, Quinones, and Ethers," *Science* **283**, 1135-1138 (1999), NASA Ames Research Center, 2007

Dudley R. Herschbach Award for Excellence in Research in the field of Collision Dynamics, Dynamics of Molecular Collisions Meeting, Santa Fe, 2007

Honorary Doctorate, Chalmers Institute of Technology, Göteborg, Sweden, 2007

Oesper Award, University of Cincinnati and Cincinnati Section of the American Chemical Society, 2006

Chandler Medal, Department of Chemistry, Columbia University, 2005

Pupin Medal "for service to the nation", Columbia University School of Engineering, 2005

Wolf Prize in Chemistry, Israel, 2005

Nichols Medal, New York Section of the American Chemical Society, 2005

James Flack Norris Award for Outstanding Achievement in the Teaching of Chemistry, Northeastern Section of the American Chemical Society, 2004

Laurance and Naomi Carpenter Hoagland Prize for Excellence in Undergraduate Education, Stanford University, 2003

Honorary Doctorate, Université P. Sabatier, Toulouse, France, 2003

Distinguished Chemist Award, American Chemical Society Sierra Nevada Section, 2002

Honorary Doctorate, Hunan University, 2002

California Separation Science Society (CaSSS) Scientific Achievement Award, 2000-2001

Honorary Doctorate, D Univ, The University of York, York, UK, 2001

Honorary Doctorate, State University of West Georgia, 2001

2000-2001 Madison Marshall Award, American Chemical Society, North Alabama, 2001

Faraday Medal & Lectureship, Royal Society of Chemistry, 2001

Charles Lathrop Parsons Award, American Chemical Society, "to recognize outstanding public service by a member of the American Chemical Society," 2001

Nobel Laureate Signature Award for Graduate Education, American Chemical Society, 2000

Arthur L. Schawlow Prize in Laser Science, American Physical Society, 2000

Doctor of Philosophy, honoris causa, Uppsala University, Uppsala, Sweden, 2000

The Welch Award in Chemistry, 1999

Doctor of Science, honoris causa, Columbia University, 1999

E. Bright Wilson Award in Spectroscopy, 1999

Distinguished Service Award, National Science Board, 1998

Centennial Medal, Graduate School of Arts and Sciences, Harvard University, 1998

G. M. Kosalapoff Award, Auburn Section, American Chemical Society, 1998

ACS Award in Analytical Chemistry, 1998

Eastern Analytical Symposium Award for Outstanding Achievements in the Field of Analytical Chemistry, 1997

Allan V. Cox Medal for Faculty Excellence Fostering Undergraduate Research, Stanford University, 1997

NASA Exceptional Scientific Achievement Award, 1997

Phi Beta Delta, 1997 (Honorary Member)

California Scientist of the Year, 1997

The Bing Fellowship Award, "to recognize excellence in teaching and commitment to undergraduate education," 1996

ACS Division of Analytical Chemistry Award in Chemical Instrumentation, 1995

Dannie-Heineman Preis, Akademie der Wissenschaften zu Göttingen, 1993

Doctor of Science, Honorary Degree, Eidgenössische Technische Hochschule Zürich, Switzerland, 1993

The Pauling Award, Puget Sound, Oregon and Portland Sections of the American Chemical Society, 1993

The Harvey Prize, Technion, Israel Institute of Technology, 1993

Doctor of Science, Honorary Degree, Northwestern University, 1993

National Academy of Sciences Award in Chemical Sciences, for "pioneering laser-based techniques, deep insights, and seminal contributions, which have influenced every facet of chemical reaction dynamics," 1991

Peter Debye Award in Physical Chemistry, American Chemical Society, 1991

Willard Gibbs Medal, Chicago Section, American Chemical Society, 1990

Doctor of Science, Honorary Degree, University of Arizona, 1990

ISCO Award for Significant Contributions to Instrumentation for Biochemical Separations, 1990

Dean's Award for Excellence in Teaching, Stanford University, 1987

Kirkwood Award Medal, Yale University, New Haven Section of the American Chemical Society, 1986

Michelson-Morley Award, Case Institute of Technology, Case Western Reserve University, 1986

Irving Langmuir Prize, American Physical Society, for "seminal innovations in developing many experimental and theoretical processes," 1985

Harrison Howe Award, Rochester Section, American Chemical Society, 1985

Remsen Award, Maryland Section, American Chemical Society, 1985

Evans Award, The Ohio State University, 1984

National Medal of Science, for "seminal contributions to molecular spectroscopy, photochemistry, and chemical reaction dynamics, especially for his incisive theoretical methods and the development of the experimental technique of laser-induced fluorescence," 1983

Spectroscopy Society of Pittsburgh Award, 1983

Earle K. Plyler Prize, American Physical Society, 1981

Michael Polanyi Medal, presented at the Faraday Discussions of the Chemistry Society, Birmingham, England, 1979

Fresenius Award, 1974. Given by Phi Lambda Upsilon Honorary Chemical Society to the most outstanding chemist under age 35

Alfred P. Sloan Fellowship, 1967-1969

Phi Beta Kappa, 1961

MEMBERSHIPS, COMMITTEES, BOARDS, ETC.

Associate Fellow, TWAS, Academy of Sciences for the Developing World, 2009

Fellow, American Chemical Society, 2009

Honorary Fellow, Indian Academy of Sciences, 2008

Fellow, Michelle R. Clayman Institute for Gender Research, 2008

Fellow, Association for Women in Science, 2008

Honorary Fellow, Chemical Research Society of India (CRSI), 2007

Advisor, Camille and Henry Dreyfus Foundation, 2007

President, Molecular Frontiers Foundation, 2006

Senior Presidential Advisor, Hunan University, 2006

Chair, Academic Advisory Committee, Biomedical Engineering Center, Hunan University, 2006

Professor of Biomedical Engineering Center, Hunan University, 2006

Faculty Affiliate, Michelle R. Clayman Institute for Gender Research, 2006-2008

Member of the European Academy of Sciences, elected 2004

Foreign Member, Swedish Royal Academy of Engineering Sciences (IVA), elected 2004

Foreign Member, Chinese Academy of Sciences (CAS), elected 2004

Honorary Member, The World Jewish Academy of Sciences, 2004

Honorary Fellow, Royal Society of Chemistry, 2001

Foreign Council Member, Institute for Molecular Science (Japan), 1999-2001

Foreign Member, Royal Society (London), elected 1999

Chairman, President's National Medal of Science Selection Committee 1997-2000

Fellow, California Council on Science and Technology, 1997
Council Member, National Academy of Sciences, 1995-1998
Chair, Commission on Physical Sciences, Mathematics, and Applications, National Research Council, 1992-1995
Member, National Science Board, 1992-1998; Chairman, National Science Board, 1996-1998;
Vice-Chair of Board of Directors, Annual Reviews, Inc., 1992-1995; Chairman of the Board of Directors, Annual Reviews Inc., 1995-
Honorary Fellow, California Academy of Sciences, elected 1991
Fellow, Optical Society of America, elected 1991
Member, American Philosophical Society, elected 1991
Member, Government-University-Industry Research Roundtable of the National Academy of Sciences, 1989-1992
Chairman, Panel on Basic Science and Technology Centers, National Academy of Sciences, 1987
Member, Directed Energy Weapons study panel, American Physical Society (APS) 1985-1987
Fellow, American Association for the Advancement of Science, elected 1985
Chairman, Division of Chemical Physics (DCP) American Physical Society (APS) 1985-1986,
Vice-Chairman, 1984-1985
Member, Committee on Atomic and Molecular Science (CAMS), National Research Council, 1983-1985
Editor, Chemical Physics Letters, 1982-1985
Chairman, National Science Foundation Advisory Panel (Chemistry Division), 1980-1982
Member, National Academy of Sciences, elected 1976
Member, American Academy of Arts and Sciences, elected 1976
Fellow, The American Physical Society, elected 1969
Non-Resident Fellow, Joint Institute of Laboratory Astrophysics, 1969-
Member, The Chemical Society (London)

Editorial Advisory Boards:

Chemistry World
Honorary Board member of Physical Chemistry and Chemical Physics (PCCP)
Analytical Sciences
Angewandte Chemie
Central European Journal of Chemistry
ChemPhysChem
Chemical Physics
Chemical Physics Letters
Molecular Physics
Journal of Separation Sciences
Chinese Journal of Chromatography

Previously on Board of Editors:

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Science
Cambridge University Press
Applied Physics
Accounts of Chemical Research
Analytical Chemistry
Chemical & Engineering News
The Journal of Chemical Physics
The Journal of Physical Chemistry

Optics Letters

Scientific Advisory Boards:

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