



G. N. Ramachandran

FNA , FRS, FRSA

Professor , Mathematical Philosophy;
INSA Albert Einstein Professor,
Mathematical Philosophy Group
Indian Institute of Science, Bangalore

Born on 8th October, 1922

Education

- PhD, University of Cambridge, England
- D. Sc, Indian Institute of Science, Bangalore

Important Research Contributions

- Discovery of the Triple Helical Structure of the connective tissue protein called Collagen
- 'The Ramachandran phi-psi Plot' which has become a standard description of protein structure
- Development of the theory of image reconstruction from shadowgraphs (such as X-radiograms) using the Convolution Technique.

G. N. RAMACHANDRAN MEMORIAL LECTURE

Past Speakers

Raghavendra Gadagkar	Interrogating on insect society	3 November, 2010
Govindarajan Padmanaban	Drugs and Drug Targets against the Malarial Parasite	4 February, 2011

3rd G.N. RAMACHANDRAN MEMORIAL LECTURE

Title

Microdroplet Chemistry

Speaker

Professor Richard N. Zare

Marguerite Blake Wilbur Professor in Natural Science,
Stanford University
Department of Chemistry, Stanford University, USA

1st March 2017, 4:00 p.m.



Venue

Silver Jubilee Hall



S.N. Bose National Centre for Basic Sciences

Kolkata - 700 106

About the speaker



Richard N. Zare is the Marguerite Blake Wilbur Professor in Natural Science at Stanford University. He was born on November 19, 1939 in Cleveland, Ohio, and is a graduate of Harvard University, where he received his B.A. degree in chemistry and physics in 1961 and his Ph.D. in chemical physics in 1964. In 1965 he became an assistant professor at the Massachusetts Institute of Technology, but moved to the University of Colorado in 1966, remaining there until 1969 while holding joint appointments in the departments of chemistry, and physics and astrophysics. In 1969 he was appointed to a full professorship in the chemistry department at Columbia University, becoming the Higgins Professor of Natural Science in 1975. In 1977 he moved to Stanford University. He was named Chair of the Department of Chemistry at Stanford University in 2005. In 2006 he was named a Howard Hughes Medical Institute (HHMI) Professor.

Professor Zare is renowned for his research in the area of laser chemistry, resulting in a greater understanding of chemical reactions at the molecular level. By experimental and theoretical studies he has made seminal contributions to our knowledge of molecular collision processes and contributed very significantly to solving a variety of problems in chemical analysis. His development of laser induced fluorescence as a method for studying reaction dynamics has been widely adopted in other laboratories.

Professor Zare has received numerous honors and awards. They include: Phi Lambda Upsilon's Fresenius Award (1974), Michael Polanyi Medal, the Gas Kinetics Group of the Royal Society of Chemistry (1979), the APS Earle K. Plyler Prize (1981), Spectroscopy Society of Pittsburgh Award (1983), the National Medal of Science (1983), the Evans Award and Lectureship, Department of Chemistry, The Ohio State University (1984), the ACS (Maryland Section) Remsen Award (1985), the ACS (Rochester Section) Harrison Howe Award (1985), the APS Irving Langmuir Prize (1985), the ACS (New Haven Section) Kirkwood Medal (1986), Michelson-Morley Award, Case Western Reserve University (1986), the ACS (Chicago Section) Willard Gibbs Medal (1990), the ISCO Award for Significant Contributions to Instrumentation for Biochemical Separations (1990), The National Academy of Sciences Award in Chemical Sciences (1991), the ACS Peter Debye Award in Physical Chemistry (1991), The Harvey Prize (1993), the Dannie-Heineman Preis (1993), the ACS (Puget Sound, Oregon and Portland Sections) Pauling Award (1993), the ACS (Division of Analytical Chemistry) Award in Chemical Instrumentation (1995), NASA Exceptional Scientific Achievement Award (1997), the California Scientist of the Year Award (1997), the Eastern Analytical Symposium Award for Outstanding Achievements in the Field of Analytical Chemistry (1997), National Science Board's Distinguished Service Award (1998), the ACS (Auburn Section) G. M. Kosalapoff Award (1998), the ACS Award in Analytical Chemistry (1998), the Centennial Medal, Graduate School of Arts and Sciences, Harvard University (1998), the ACS E. Bright Wilson Award in Spectroscopy (1999), the Welch Award in Chemistry (1999), the APS Arthur L. Schawlow Prize in Laser Science (2000), the ACS (North Alabama Section) Madison Marshall Award (2000), the California Separation Science Society Scientific Achievement Award (2000), the ACS Nobel Laureate Signature Award for Graduate Education (2000), Royal Society of Chemistry Faraday Lecture (2001), the ACS Charles Lathrop Parsons Award (2001), the ACS (Sierra Nevada Section) Distinguished Chemist Award (2002), the ACS (New York Section) Nichols Medal (2004), the Chandler Medal, Department of Chemistry, Columbia University (2005), Pupin Medal "for service to the nation," Columbia University School of Engineering (2005), the Wolf Prize in Chemistry, Israel (2005), the ACS (University of Cincinnati and Cincinnati Section) Oesper Award (2006), the Dudley R. Herschbach Award for Excellence in Research in the field of Collision Dynamics, Dynamics of Molecular Collisions Meeting, Santa Fe (2007), the H. Julian Allen Award, NASA Ames Research Center (2007), the Texas A&M University, Department of Chemistry, and Texas A&M Section, ACS, F. A. Cotton Medal for Excellence in Chemical Research (2009), the ACS (Northeastern Section) Richards Medal (2010), the ACS Priestley Medal (2010), the BBVA Foundation Frontiers of Knowledge Award in the Basic Sciences category (shared with Michael E. Fisher) (2010), the Honorary Fellow of the Chinese Chemical Society (elected 2010), the R. B. Bernstein Award in Stereodynamics (shared with R.D. Levine) (2010), the King Faisal International Prize in Science (shared with George M. Whitesides) (2011), Honorary Membership into the Japan Society for Analytical Chemistry (2011), the Einstein Professorship of the Chinese Academy of Sciences (2011), the Torbern Bergman Medal (2012), and the International Science and Technology Cooperation Award of the People's Republic of China (2012). Professor Zare has given named lectures at numerous universities, has authored and co-authored over 800 publications and more than 50 patents, and he has published four books.



S.N. Bose National Centre for Basic Sciences

Block JD, Sector III, Salt Lake,
Kolkata- 700 106

On behalf of the Centre
I cordially invite you to the

3rd

G.N. Ramachandran Memorial lecture

on

Microdroplet Chemistry

to be delivered by

Professor Richard N. Zare

Marguerite Blake Wilbur Professor in Natural Science,
Stanford University
Department of Chemistry, Stanford University, USA

on

1 March 2017, 4:00 p.m.

at the

Silver Jubilee Hall

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Kolkata -700 106

Prof. Samit Kumar Ray
Director