

Richard N. Zare

The 2004 Recipient of the James Flack Norris Award for Outstanding Achievement in the Teaching of Chemistry

Richard N. Zare is the Marguerite Blake Wilbur Professor in Natural Science at Stanford University with an appointment in the Department of Chemistry and a courtesy appointment in the Department of Physics. He 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 JILA, University of Colorado at Boulder 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 Department of Chemistry at Columbia University, becoming the Higgins Professor of Natural Science in 1975. In 1977 he moved to Stanford University.

Professor Zare is an enthusiastic and dedicated teacher who has taught one form or another of freshman chemistry every year he has been at Stanford University. He has had enormous impact in enabling and inspiring students to take responsibility for their own learning. His efforts in teaching and mentoring have been recognized by various awards including Stanford's university-wide highest award for undergraduate teaching, the Laurence and Naomi Hoagland Award, in 2003. He is also a superb teacher at the graduate and research level.

Zare is also renowned for his research in the area of lasers applied to chemical reactions and to chemical analysis. His textbook, *Angular Momentum*, is a classic, and his manual on laser experiments is widely used. Over 100 students have received their Ph.D degrees under his direction.

He has been active in public service, serving on the National Science board -- the policy-setting body of the National Science Foundation-- from 1992-1998, the last two years as its chair.

Zare has received many honors, including the National Medal of Science in 1983, the Welch Award in Chemistry in 1999, the Distinguished Service Award, National Science Board, in 1998, the Charles Lathrop Parsons Award of the American Chemical Society "to recognize outstanding public service by a member of the American Chemical Society " in 2001, and , as mentioned above, Stanford University's Laurence and Naomi Hoagland Prize for Excellence in Undergraduate Education in 2003.

The James Flack Norris Award for Outstanding Achievement in the Teaching of Chemistry will be presented to Professor Zare by the Northeastern Section of the American Chemical Society on November 11, 2004 at the Massachusetts Institute of Technology. Zare's talk is titled "Chemical Fizzics: Seeing Chemistry in Action."