

Ahmad Zewail



Ahmed Hassan Zewail is an Egyptian-American scientist, and the winner of the 1999 Nobel Prize in Chemistry for his work on femtochemistry. He is the Linus Pauling Chair Professor Chemistry, Professor of Physics, and the Director of the Physical Biology Center for Ultrafast Science and Technology (UST) and the NSF Laboratory for Molecular Sciences (LMS) at the California Institute of Technology. His current research is devoted to dynamical chemistry and biology, with a focus on the physics of elementary processes in complex systems. A major research frontier is the new development of "4D ultrafast diffraction and microscopy", making possible the imaging of transient structures in space and time with atomic-scale resolution.

Ahmad Zewail was born on February 26, 1946 in Damanhour and raised in Disuq. He received bachelor's degree and MS degree from the University of Alexandria before moving from Egypt to the United States to complete his PhD at the University of Pennsylvania with advisor Dr. Robin Hochstrasser. He completed a post-doctoral fellowship at the University of

After some post doctorate work at UC-Berkeley, he was awarded a faculty appointment at Caltech in 1976, where he has remained since, and in 1990, he was made the first Linus Pauling Chair in Chemical Physics. He became a naturalized citizen of the United States in 1982.

Dr. Zewail has been nominated and will participate in President Barack Obama's Presidential Council of Advisors on Science and Technology (PCAST), an advisory group of the nation's leading scientists and engineers to advise the President and Vice President and formulate policy in the areas of science, technology, and innovation.

Zewail's key work has been as the pioneer of femtochemistry—i.e. the study of chemical reactions across femtoseconds. Using a rapid ultrafast laser technique (consisting of ultrashort laser flashes), the technique allows the description of reactions on very short time scales—short enough to analyse transition states in selected chemical reactions.

In 1999, Zewail became the third ethnic Egyptian to receive the Nobel Prize, following Egyptian president Anwar Al-Sadat (1978 in Peace), Naguib Mahfouz (1988 in Literature). Mohamed El-Baradei followed him (2005 in peace). Other international awards include the Wolf Prize in Chemistry (1993) awarded to him by the Wolf Foundation, the Tolman Medal (1997), the Robert A. Welch Award (1997), and the Priestley Medal from the American Chemical Society in 2011. In 1999, he received Egypt's highest state honor, the Grand Collar of the Nile.



Zewail was awarded a PhD Honoris Causa by Lund University in Sweden in May 2003 and is a member of the Royal Swedish Academy of Sciences. Cambridge University awarded him an Honorary Doctorate in Science in 2006. In May 2008, Zewail received a PhD Honoris Causa from Complutense University of Madrid. In February, 2009, Zewail was awarded an honorary PhD in arts and sciences by the University of Jordan. In May 2010, he received a PhD Honoris Causa in Humane Letters from Southwestern University.

Zewail is married, and has four children.

[Condensed from Wikipedia and http://nobelprize.org/nobel_prizes/chemistry/laureates/1999/zewail-autobio.html]