

Abdus Salam Summary

Ahmed Zewail, born on February 26, 1946, in Damanhur, Egypt, was a pioneering Egyptian-American scientist and Nobel laureate renowned for his groundbreaking contributions to the field of femtochemistry. Zewail's journey in science began in Egypt, where he completed his undergraduate studies at Alexandria University. He later pursued his Ph.D. in chemical physics at the University of Pennsylvania in the United States, earning his doctorate in 1974.

Zewail's revolutionary work in femtochemistry, a field he essentially founded, focused on studying chemical reactions on extremely short timescales—measured in femtoseconds (quadrillionths of a second). Using ultrafast laser techniques, Zewail was able to capture and observe the dynamics of molecular reactions at unprecedented temporal resolutions.

In 1999, Ahmed Zewail was awarded the Nobel Prize in Chemistry for his pioneering contributions to femtochemistry. He became the first Egyptian and Arab scientist to receive a Nobel Prize in a scientific field and the second African laureate in chemistry. Zewail's research not only advanced our fundamental understanding of chemical reactions but also had implications for various fields, including biology and medicine.

Beyond his scientific achievements, Zewail held prominent academic positions, including the Linus Pauling Chair Professor of Chemistry and a professor of physics at the California Institute of Technology (Caltech). He also served as the director of the Physical Biology Center for Ultrafast Science and Technology at Caltech.

Ahmed Zewail was an advocate for science education and played a crucial role in promoting scientific research in the Middle East. His efforts aimed at bridging the gap between the scientific communities of the Western and Arab worlds.

Tragically, Ahmed Zewail passed away on August 2, 2016. His legacy endures through his groundbreaking scientific contributions, commitment to education, and efforts to inspire a new generation of scientists in the Arab world and beyond. Zewail's life serves as a testament to the transformative power of scientific inquiry and the potential for individuals to shape the course of scientific progress globally.