



## SIMON FRASER UNIVERSITY

**Honorary Degree Citation**  
**The degree of Doctor of Science, *honoris causa*,**  
**conferred on Dr. Ahmed Zewail**  
**Friday, October 10, 2014**

Madam Chancellor, it is an honour to present Professor Ahmed Zewail, Nobel-laureate and pre-eminent statesman whose pioneering breakthroughs and advocacy for science and peace place him at the front rank of the world's intellectual community.

Dr. Zewail is the Linus Pauling Professor of Chemistry and Professor of Physics at the California Institute of Technology. He is also the Director of the Moore Foundation's Center for Physical Biology at Caltech, and for ten years he served as the Director of the National Science Foundation's Laboratory for Molecular Sciences.

In 1999 Professor Zewail was the sole recipient of the Nobel Prize in Chemistry for his developments in femtoscience, in which chemical reactions are "photographed" over femtosecond time scales using ultrafast laser techniques. Femtosecond spectroscopy enables scientists to observe and understand the breaking and formation of chemical bonds in real time. This groundbreaking development is a foundation for research around the world, making possible significant advances in chemistry and biology and their adjacent sciences.

More recently, he and his group have developed 4D electron microscopy for the direct visualization of materials and biological behaviours in the four dimensions of space and time, covering structures of nanoscale and those that are responsible for diseases such as Alzheimer's.

Dr. Zewail has taken a leadership role in promoting the potential for science and education, particularly in the developing world, to contribute to world peace. In 2009 U.S. President Obama appointed him to his Council of Advisors on Science and Technology, and in the same year named him the first US science envoy to the Middle East.

A brilliant scientist, humanist, and superb communicator, Dr. Zewail represents a standard of excellence that can only be described as remarkable. In addition to his Nobel Prize, he has garnered many honors and awards – far too many to enumerate – but they include over fifty honorary degrees from many of the world's best universities and Orders of State and Merit. In Egypt, the Government honoured his contributions by establishing the "Zewail City of Science and Technology", and Dr. Zewail is the first Chairman of its Board of Trustees.

Today it is our enormous privilege to recognize his contributions to science and humanity. Madam Chancellor, on behalf of the Senate of this University, I ask that you now confer upon Professor Ahmed Zewail the degree, Doctor of Science, *honoris causa*.