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Nobel Laureate Lectures on Environmental Issues

Prof Paul Crutzen, the [1995 Nobel Chemistry Laureate](#) celebrated for his work related to ozone depletion, delivered his Distinguished Lecture in Science today (8 April 2005) at the Hong Kong University of Science and Technology (HKUST).

In his Lecture, entitled "The Anthropocene: Its Chemistry and Climate", Prof Crutzen reflected on how human activity had caused an increasingly detrimental effect on the environment, for instance resulting in the ozone hole, global warming, urban and regional air pollution and acid rain. He also discussed the consequences of such degradation on both mankind and the ecosystem.

The 71-year-old Dutch scientist was co-recipient of a 1995 Nobel Prize, awarded for his pioneering work in atmospheric chemistry, particularly concerning the formation and decomposition of ozone.

His research has focused on the natural and anthropogenically disturbed photochemistry of ozone in the stratosphere and troposphere. Among Prof Crutzen's many seminal breakthroughs was his 1970 demonstration of the chemical process in which nitrogen oxides react to decompose ozone, thus causing the depletion of ozone content in the atmosphere. Prof Crutzen also identified biomass burning, including forest fires and vegetation clearing, as an important source of widespread air pollution in the tropics.

In 2000, he proposed using the term "anthropocene" for the current geological epoch to emphasize the central role of mankind in geology and ecology. This is the period in which growth in the atmospheric concentrations of several greenhouse gases, such as carbon dioxide and hydrocarbons, has so negatively impacted global climate change and human health.

Prof Crutzen's work has also contributed directly to the international protocol on the protection of the ozone layer, which prohibits the release of ozone-destroying substances.

Born in Amsterdam in 1933, Prof Crutzen is an Emeritus Professor at Utrecht University Institute for Marine and Atmospheric Sciences in his native Netherlands. He also continues teaching at the Max-Planck-Institute for Chemistry, Germany, and the Scripps Institution of Oceanography, University of California, San Diego. He is a member of the Royal Swedish Academy of Sciences and the Royal Swedish Academy of Engineering Sciences.



