

## Academician Alfred Cho to Receive the 2015 Rumford Prize

Academician Alfred Y. Cho, together with physicist Federico Capasso, will receive the 2015 Rumford Prize awarded by the American Academy of Arts and Sciences, in recognition of their contributions to the field of laser technology. This award will be presented to Dr. Cho and Dr. Capasso, both of whom are also the member of the Academy, on April 14, 2016 at the Academy's headquarters in Cambridge, Massachusetts, United States.

At Bell Laboratories in 1994, Federico Capasso and Alfred Cho invented the quantum cascade (QC) laser, a concept first proposed by Rudolf Kazarinov in 1971. A revolutionary new light source, the QC laser is widely used as a source of radiation for chemical sensing and spectroscopy. Common commercial application of QC lasers include telecommunications, medical diagnostics, and pollution monitoring.

First awarded in 1839, the Rumford Prize is one of the oldest scientific prizes in the United States. The prize recognizes contributions to the fields of heat and light, broadly defined. Previous Rumford Prize recipients include: Thomas Edison, in 1895, for his work in electric lighting; Edwin Land, in 1945, for his applications in polarized light and photography; Enrico Fermi, in 1953, for his studies of radiation theory and nuclear energy; and Sidney Drell, Sam Nunn, William Perry, and George Shultz, in 2008, for their collective efforts to reduce the global threat of nuclear weapons. Academician Chen Ning Yang, also received the Rumford Prize in 1980, for development of a generalized gauge invariant field theory.

Academician Albert Y. Cho is the Adjunct Vice President of Semiconductor Research at Alcatel-Lucent's Bell Labs. Dr. Cho is a member of several honorary societies, including the American Academy of Arts and Sciences, as well as the National Academy of Sciences, the National Academy of Engineering, the American Physical Society, and the Institute of Electrical and Electronics Engineers.

He has received numerous awards recognizing his contributions to science and technology, including the American Physical Society International Prize for New Materials (1982), the Solid State Science and Technology Medal of the Electrochemical Society (1987), the Gaede-Langmuir Award of the American Vacuum Society (1988), the Industrial Research Institute Achievement Award of the Industrial Research Institute, Inc. (1988), the World Materials Congress Award of ASM International (1988), the New Jersey Governor's Thomas Alva Edison Science Award (1990), the National Medal of Science (1993), the IEEE Medal of Honor (1994), the Materials Research Society Von Hippel Award (1994), the Elliott Cresson Medal of the Franklin Institute (1995), the Willis E. Lamb Medal for Laser Physics (2000), and the National Medal of Technology (2007) and the first international

nanotechnology prize, RUSSNANO Prize, Russia. The same year he was inducted into the US National Inventors Hall of Fame in 2009. He has been an Academia Sinica Academician since 1990.

More information, please visit:

<https://www.amacad.org/content/news/pressReleases.aspx?pr=10249>