

# Nobel Prize awarded to Akira Suzuki, Emeritus Professor of Hokkaido University



Emeritus Professor Akira Suzuki at the press conference after winning the 2010 Nobel Prize in Chemistry

## Forging a New Era: Reviving the Frontier Spirit



Commemorative Ceremony at the Graduate School of Engineering



Meeting with Prime Minister Naoto Kan

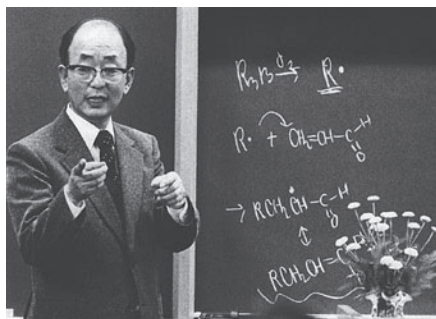
On October 6, the Royal Swedish Academy of Sciences announced its decision to award the 2010 Nobel Prize in Chemistry to Dr. Akira Suzuki, Emeritus Professor of Hokkaido University.

Dr. Suzuki embodies the “*Frontier Spirit*” – a philosophy originating from the words “*Lofty Ambition*” that Sapporo Agricultural College’s (Hokkaido University) first Vice-Principal, Dr. William Clark, expressed during the opening ceremony of the college. Let this be a reconfirmation of our commitment to lead Japan and the world in research and education and an inspiration for us all to reach for the stars. Hokkaido University congratulates Dr. Suzuki and we are honored to be a part of his achievement.

## Background of Dr. Suzuki's Research

Dr. Suzuki's research achievements lie primarily in the fields of organic synthetic chemistry, organometallic chemistry, and catalytic chemistry. His work on the cross-coupling reaction of an organic boron compound using palladium as a catalyst—work he presented in 1979—had a profound impact on a wide range of research. Catalytic chemistry, material sciences, and organic synthetic chemistry are fields that were also affected, and cross-coupling has become globally recognized as the “Suzuki coupling reaction” or the “Suzuki-Miyaura coupling reaction.”

Professor Herbert C. Brown (1979 Nobel Laureate in Chemistry) of Purdue University,



Lecturing at the Department of Pharmaceutical Chemistry, Hokkaido University, October 1979

United States; introduced Dr. Suzuki to this research in 1963 when he was a doctoral research fellow in the U.S. In 1965, Dr. Suzuki returned to his post as an assistant professor of Hokkaido University and he dedicated himself to studying new methods of synthesis using organic boron compounds.



As a chairman, IUPAC Dijon Conference (France), August 1983

Although Dr. Suzuki's cross-coupling reaction could be described as epoch-making, the initial response in Japan was not encouraging. The tide turned in 1979 when his paper was published in academic journals overseas. There can be no doubt that the success of Dr. Suzuki and his team of students stems from their *Frontier Spirit* and



With Professor and Mrs. H. C. Brown, at their house, Indiana (USA), June 1995

advancing their research beyond the shores of Japan.

Pharmaceuticals, agrochemicals, liquid crystals essential for IT devices, as well as a new generation of luminescent material—organic electroluminescence (EL) have all benefited from cross-coupling research.

Dr. Suzuki exemplifies the ideal that research should contribute to society, and that it is our duty to continue making contributions, not only in catalytic areas that we are advanced in, but also in the larger sense to the wider world and drawing on the wisdom and knowledge cultivated at Hokkaido University.

## Aiming for a Sustainable Society, Aiming for Action

Ever since its establishment in 1876, under the motto of *Frontier Spirit*, Hokkaido University has continued its involvement with the local community and the wider world for a society in which humans coexist with nature. The 21st century has brought with it a broadening of the university's perspective to include research and education with the goal of “realization of a sustainable society (sustainability)”, and the aim of harmony between the environment, society, the economy, and individuals.

Among the problems related to the survival



Catalysis Research Center

of humankind—such as the deterioration of the global environment, exhaustion of water resources and food, and global warming—“sustainability” is currently regarded as the most important issue, not only by the United Nations and other members of the international community, but also by the academic world. We believe that it is tackling this challenge facing humankind that is the role of Hokkaido University upholding the frontier spirit.

To achieve sustainability, it is essential that there be cooperation between researchers and the public as well as between universities, businesses, and governments. Every year since 2007, we have hosted “Sustainability Weeks” in an attempt to work together with the community as well as researchers from around the world and different sectors which support society in order to paint a picture of a new society by sharing and discussing the “accumulation of knowledge” that Hokkaido

University has amassed and includes all things pertaining to research: field work, experiments, and analysis. Moreover, in 2008, we hosted the G8 University Summit in Sapporo. Together with 20 universities from overseas, 14 universities from within Japan and with the United Nations University, we adopted the “Sapporo Sustainability Declaration” and we pledged that universities would also be a driving force behind the realization of a sustainable society.

“Lofty Ambition” and “Frontier Spirit” are two principles that we have fostered since our foundation. Dr. Suzuki held these ideals close to his heart when he traveled to America over 40 years ago. These principles are constant and have equal relevance today as well as when they were first uttered. Hokkaido University too retains these constant principles and aspires for the realization of a better world in which the environment, society, economy, and individuals are in harmony.