

R&D Activities on Hydrogen and Fuel Cells at KIST: *From Fundamentals to Commercialization*

3:30 - 4:30 p.m., Thursday, Sept. 27, 2007, FRNY B124



In-Hwan Oh

Principal Researcher
Center for Fuel Cell Research
Korea Institute of Science and Technology

To meet the on-coming energy crisis due to the non-sustainability of fossil fuels, there has been an emphasis on the hydrogen economy based on fuel cell technologies that rely on hydrogen. As the fuel cells are highly efficient, produce no pollution, and can be used in diverse applications, researchers worldwide have conducted large foundational studies and demonstrations for early commercialization. Despite these efforts, however, we have to wait a while longer before we see them on the market because of costs and lifetime.

At the Center for Fuel Cell Research housed in the Korea Institute of Science and Technology (KIST), continuous R&D efforts during the past decade have mainly focused on fuel cells for power generation, transportation, and portable electronic devices as well as on developing hydrogen generation. These efforts have ranged from fundamental studies to the aspects of commercialization, many of which have been in collaboration with private sectors. In this talk, Dr. Oh will present a brief introduction about the R&D activities at the Center for Fuel Cell Research and address current issues related to them on the various fuel cell types such as molten carbonate fuel cells, proton exchange membrane fuel cells, direct methanol fuel cells, and solid oxide fuel cells, including methane/methanol reformers and chemical hydrogen generation.