

Title **Hydrogen production from water
on heterogeneous photocatalysts**

Speaker **Dr. Kazunari DOMEN**
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Date & Time **Friday, June 8, 2012 4:00p.m.**

Place **INAMORI Hall, Ito campus, Kyushu University**

Abstract

Hydrogen production from water on heterogeneous photocatalysts is one of the attractive candidates to realize a clean and sustainable energy system based on solar energy. Recently, several types of photocatalytic water splitting systems, which work especially under visible light ($\lambda > 400$ nm), have been developed. They are mainly divided into two approaches; one is developing new visible light-responsive photocatalytic materials with an enough potential to achieve overall water splitting, and the other one is applying a two-step excitation mechanism, so-called Z-scheme system, based on two different photocatalysts. In this lecture, recent progress of photocatalytic water splitting including photo-electrochemical application will be discussed.

About the Speaker

Dr. Kazunari Domen received B.S.c. (1976), M.S.c. (1979), and Ph.D. (1982) honors in chemistry from the University of Tokyo. Dr. Domen joined Chemical Resources Laboratory, Tokyo Institute of Technology in 1982 as Assistant Professor and was subsequently promoted to Associate Professor in 1990 and Professor in 1996. Moving to the University of Tokyo as Professor in 2004.

Dr. Domen has been working on overall water splitting reaction on heterogeneous photocatalysts to generate clean and recyclable hydrogen. His research interests now include heterogeneous catalysis and materials chemistry, with particular focus on surface chemical reaction dynamics, photocatalysis, solid acid catalysis, and mesoporous materials.

Host **Professor Seiji OGO**

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