

**Title** Stronger, Tougher Steels: Potential of Nano-structured Steels

**Speaker** Dr. Kaneaki TSUZAKI

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**Date & Time** Friday, August 12, 2011 4:00p.m.

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

#### Abstract

Stronger, tougher steels are needed to realize a low-carbon society. Toughness of steels decreases as the strength and the impurities increase and the temperature decreases. This talk introduces recent research activities on enhanced toughness through multi-scale structure control, and shows how we can overcome ductile-brittle transition and embrittlement by hydrogen and phosphorous.

#### About the Speaker

Born 2<sup>nd</sup> January 1955. Dr. Eng. in Materials Science and Technology, Kyoto University, 1983. He was Postdoctoral Fellow at MIT, 1983-1985, Research Associate and Associate Professor at Kyoto University, 1985-1997. He joined NIMS in 1997 and has been in the current position since 2011, and is also working as a professor at University of Tsukuba since 2007.

His research interest has been in microstructure control of second phase particles and matrix grains in steels and alloys to produce high performance materials with high strength and other properties such as high ductility and toughness, and high resistance to hydrogen-induced fracture.

**Host** Professor Saburo MATSUOKA

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