



~~Special Polymer Physics Seminar ~~

Professor Kenji Miyatake

Clean Energy Research Center
University of Yamanashi, Japan

10:00 AM Tuesday
September 5th, 2011
301 Steidle Bldg.

Ion Conductive Aromatic Polymers for Fuel Cell Applications

A series of aromatic copolymers containing acidic or basic groups will be reported. Block copolymers contain highly hydrophilic and linear hydrophobic components for high ionic conductivity, low gas permeability, and reasonable oxidative and hydrolytic stability. Focus of interest in the hydrophilic component will be on bulky fluorene groups, which can carry one ionic group per phenylene ring resulting in high ionic density and nanophase separation. Fuel cell performance will be presented for alkaline conditions as well as for typical hydrogen/air conditions.