

日時：2010年2月10日(水) 11:00~12:00

場所：総合研究棟II,6階 視聴覚会議室

講師：ポーランドアカデミー科学院・物理化学研究所教授 Marcin Wojciech Opallo

講演題目：

Opposite charged particles for electrode modification

講演要旨：

Since seminal Decher's paper layer by layer method is used for surface modification. Typically, it employs electrostatic interactions between polymers with oppositely charged functional groups or oppositely charged polymers and nanoparticles. Very few papers reports modification by oppositely charged particles. In our research we employed carbon or Au nanoparticles and/or silicate submicroparticles bearing charged functional groups for electrode modification with nanoparticulate film. The amount of deposited is controlled by the number of immersion and withdrawal steps. The resulting electrodes exhibits increased surface area and in the case of Au nanoparticles electrocatalytic dioxygen reduction. After further modification with enzymes they also exhibits dioxygen reduction bioelectrocatalysis.