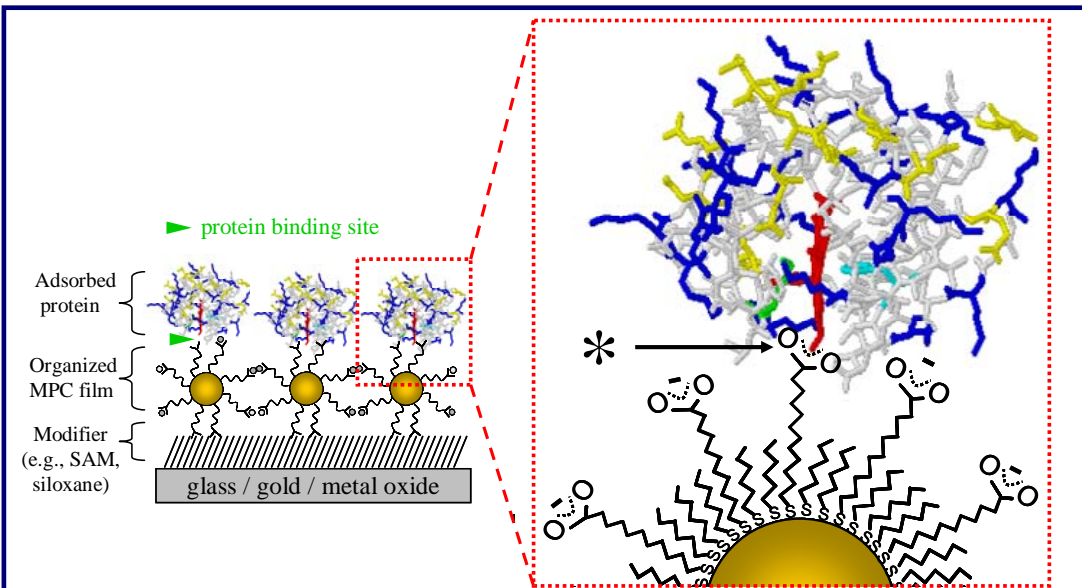


Nanoparticle Platforms for Controlled Protein Adsorption and Behavior in Protein Monolayer Electrochemistry



◀ Synthetic models of biological interfaces are of interest for many bioanalytical applications, including biosensor development. Here we explore films of nanoparticles called monolayer protected clusters (MPCs) as a functional component of protein monolayer electrochemistry. A major goal of our work is to see if rational design of the MPCs translated into molecular level control at the protein binding site* that affects the adsorbed electrochemistry. Cytochrome c (Cc) was adsorbed to films of MPCs assembled on modified gold substrates. Different types of hydrophilic MPCs (see below) successfully immobilized cyt c and controlled the adsorption environment on a molecular level.

