

Abstract Submitted  
for the MAR09 Meeting of  
The American Physical Society

**Creation and Characterization of Gold Coated Slides with a Home Built Deposition Chamber** NATE RIEDERS, ADELE POYNOR, Allegheny College — I discuss the creation of gold slides as part of a physics senior thesis at Allegheny College. The device used for making the gold slides was constructed as part of this project. Gold wire was placed in an evacuated chamber along with an array of glass slides. The gold wire is heated and evaporated onto the glass slides, leaving a thin deposition layer. The gold slides are created for the study of hydrophobic materials using surface plasmon resonance (SPR). The use of SPR as the experimental method requires the thickness of the gold layer to be precisely determined. Thus, the thickness of the gold slides is characterized using scanning tunneling microscopy.

Nate Rieders  
Allegheny College

Date submitted: 21 Nov 2008

Electronic form version 1.4