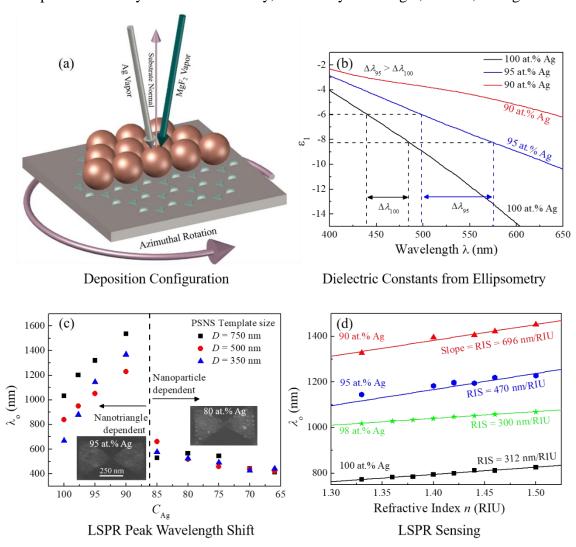
## Improving the Localized Surface Plasmonic Resonance Sensing Properties by Composite Metal/Dielectric Mixtures

Steven Larson and Yiping Zhao

Department of Physics and Astronomy, University of Georgia, Athens, Georgia 30602



**Summary figure**: (a)An illustration of mixed metal dielectric composite fabrication configuration by nanosphere lithography and electron beam co-deposition. (b) Ellipsometry measured dielectric constants showing the theoretical increase in refractive index sensitivity. (c) The main LSPR peak wavelength *versus* the Ag concentration for different nanosphere template sizes and inset scanning electron micrograph images of samples above and below the 90% composition threshold. (d) The LSPR sensing measurements with the fit slops showing the measured refractive index sensitivities.