



CORRELATION OF LSPR RESPONSE AND SILICON NANO-STRUCTURING OF GOLD NANOPARTICLES OF DIFFERENT MORPHOLOGY GROWN BY PULSED LASER DEPOSITION.

Jenitta Johnson

RajaRamanna Centre for Advanced Technology , India

Abstract

This work demonstrates a simple and scalable method for the fabrication of nano wire and nanoporous silicon substrates. Chemical etching resulted in nanowire and metal nanoparticle assisted etching produced structure on silicon. In both cases, the structures were characterized with Spectroscopic Ellipsometry and Contact angle measurement respectively. After the MACE process, AgNPs deposited on the structures. The molecular concentrations are then measured by Surface Enhanced Raman Spectroscopy (SERS). In presence of