

Supplemental Information

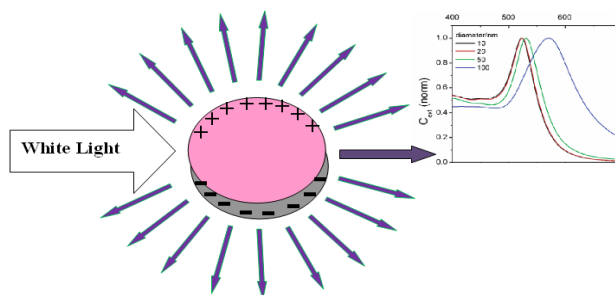


Figure S1: (a) Showing the Localized surface Plasmon resonance phenomenon of gold nanoparticle. Extinction is due to the combined effect of absorbance and scattering.

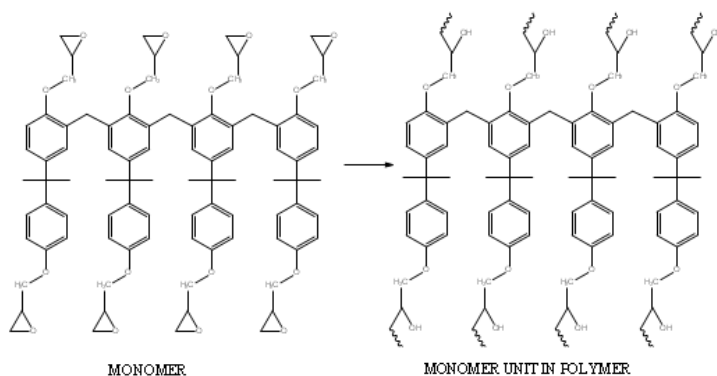


Figure S2: Molecular structure of SU-8 as a monomer and cross-linked in the polymer.

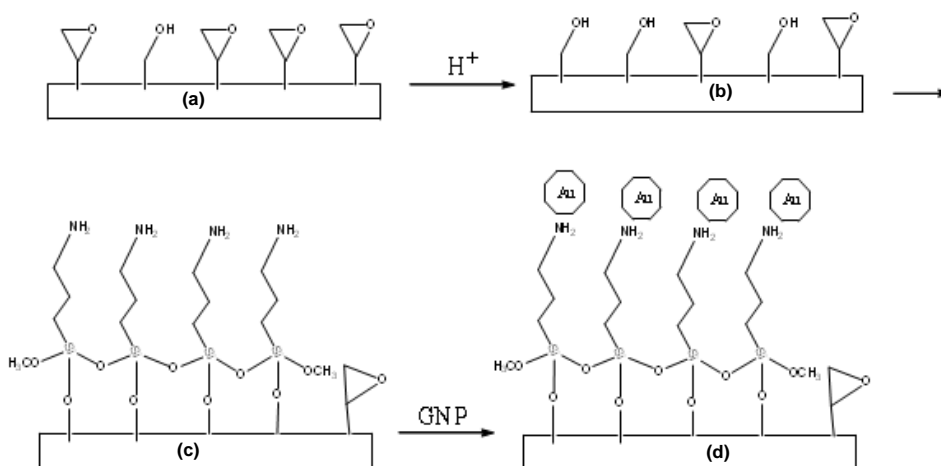


Figure S3: Displaying the surface chemistry of GNP binding on C-shaped SU8 waveguide. (a) Bare SU-8 surface consisted mostly of epoxy groups on the surface while; (b) Acid treated SU-8 displayed a complex set of functional groups on the surface. (c) Aminosilane was used to modify acid treated SU-8 in order to enhance the (d) GNP (gold nanoparticles) binding.