

## Supporting Informations's for

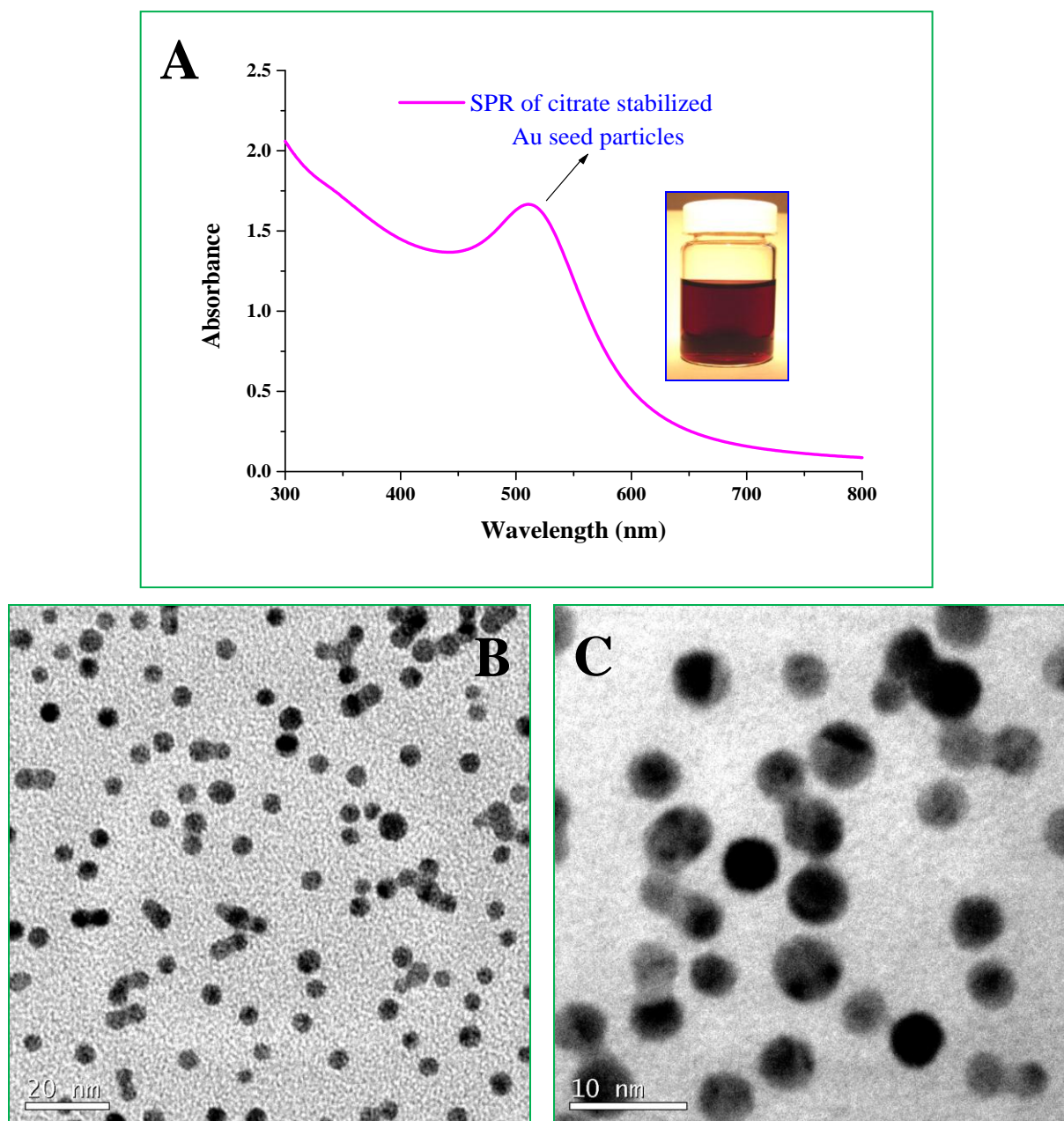
### **A new Route for the Formation of Au Nanowires and Application of Shape-selective Au Nanoparticles in SERS studies**

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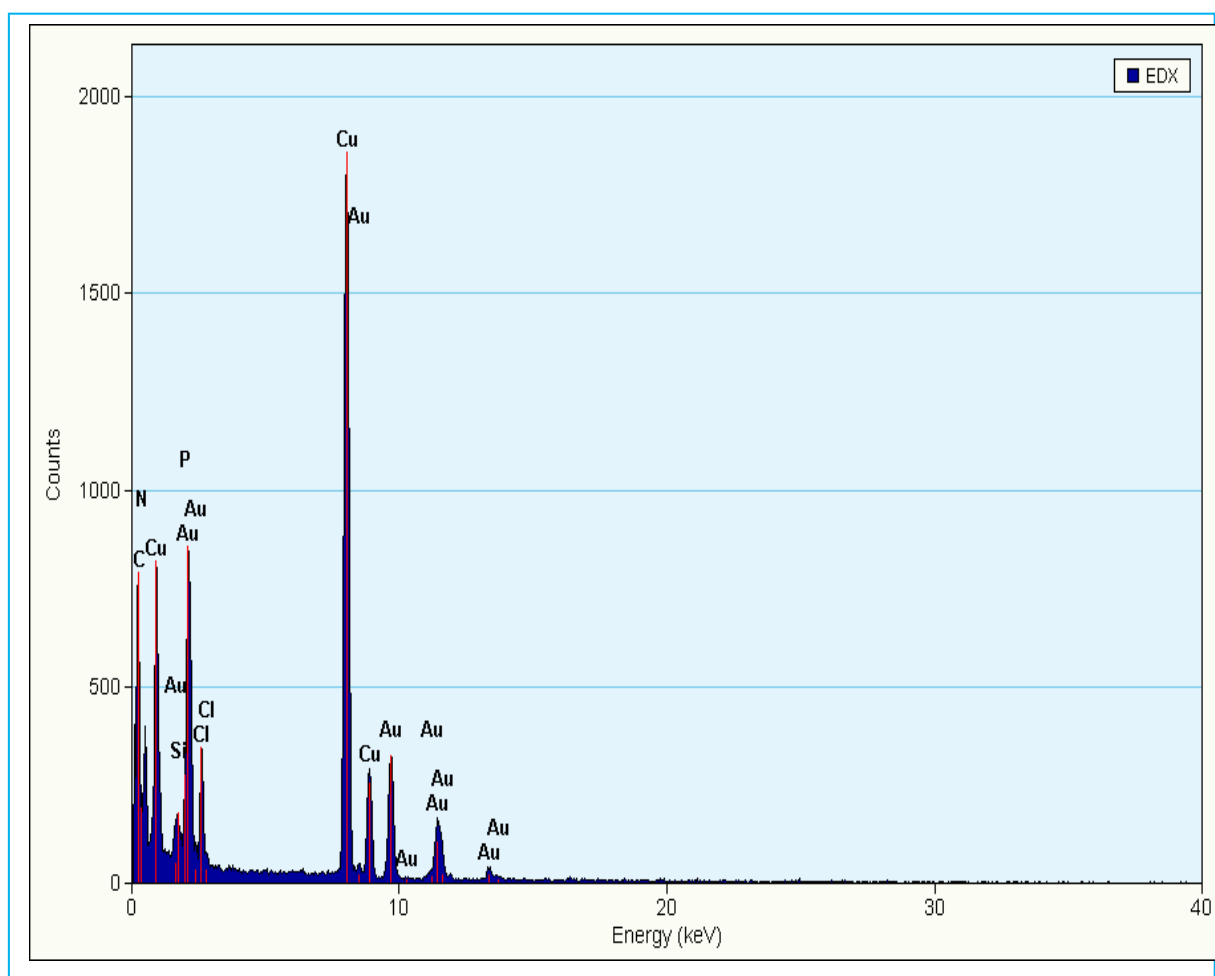
Supporting Figure S-1 shows the UV-Vis spectrum and transmittance electron microscopy (TEM) images of citrate stabilized Au seed particles that used for the synthesis of Au nano rods. Figure S-1A shows the UV-Vis spectrum of Au seed particles which shows SPR band at 508 nm. The inset shows the corresponding camera image of the Au seed particles. Figure S-1B and S-1C shows the low and high magnified TEM image of the Au seed particles and the average particles size calculated from the TEM images are ~ 3-5 nm.



**Figure S-1**

**Captions for Figure S-1:** The UV-Vis spectrum and transmittance electron microscopy (TEM) images of citrate stabilized Au seed particles. (A) shows the UV-Vis spectrum of Au seed particles; inset shows the corresponding camera image of the Au seed particles. (B) and (C) shows the low and high magnified TEM image of the Au seed particles.

Supporting Figure S-2 shows the results obtained from the energy dispersive X-ray spectroscopy (EDS) analysis of the Au NPs and this EDS analysis is used to confirm the elements present in the reaction product. The EDS spectrum consists of different peaks for Au, C, Cu and Si. The Au peak came from the Au NPs and the C and Cu peak came from the C-coated Cu TEM grid used for depositing the samples for TEM analysis. A weak Si peak is observed probably came from the glass substrate used during the synthesis process.



**Figure S-2**

**Captions for Figure S-2:** The energy dispersive X-ray spectroscopy (EDS) analysis of the Au NPs consists of different peaks for Au, C, Cu and Si.