

Additional material:

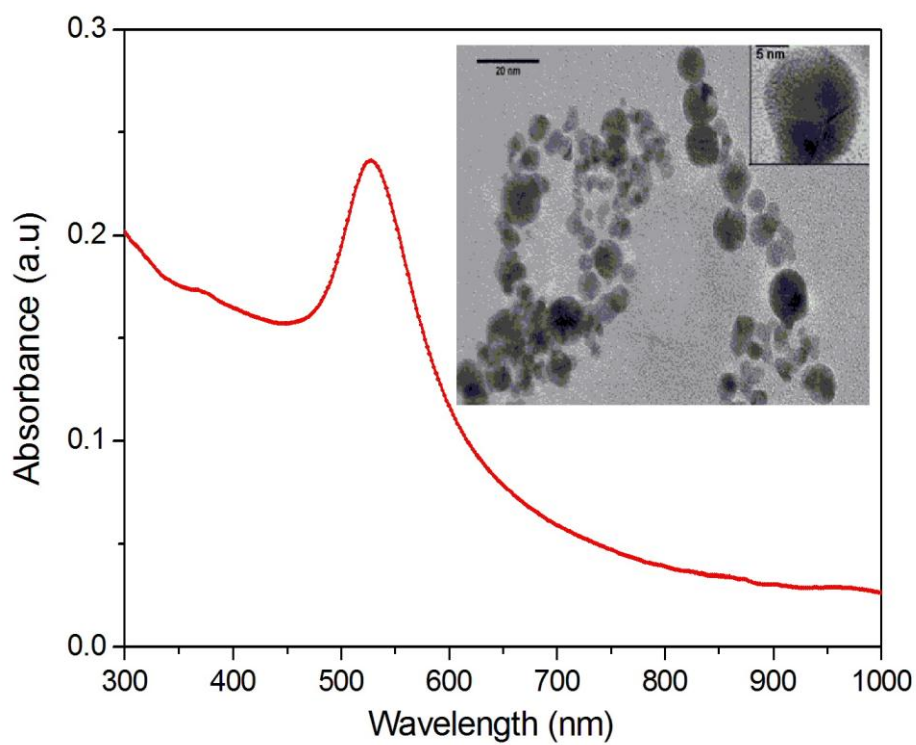


Figure 1 Absorption spectrum of the colloidal Au NPs solution in ethanol exhibiting a distinct peak at about 530nm and TEM images (insert) of the Au NPs.

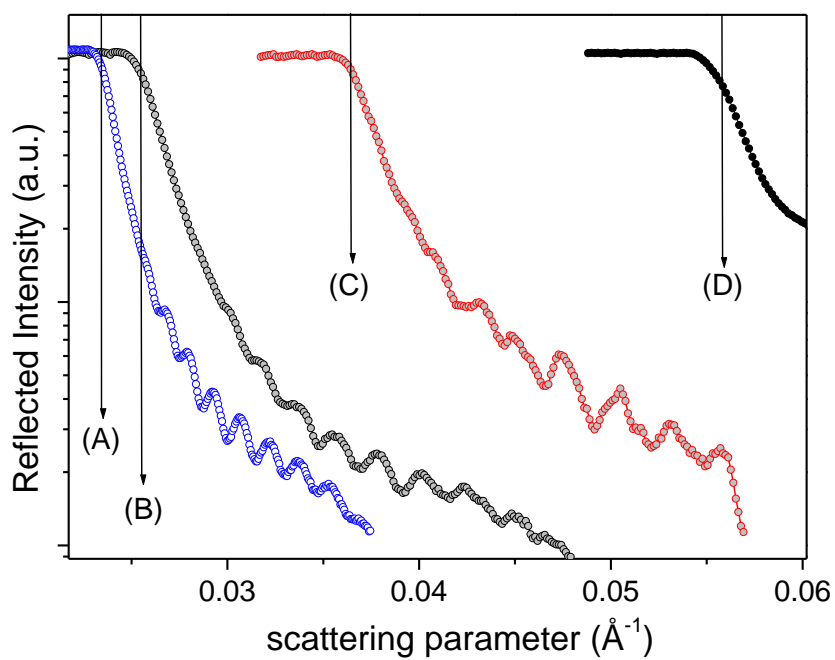


Figure 2 Ex- situ EDXR characterization performed after each stage of fabrication of PV devices. The scattering length densities of the different layers are: (A) PEDOT:PSS, $\rho_e = 1.09 \text{ E}^{-5} (\text{\AA}^{-2})$; (B) P3HT:PCBM+AuNPs, $\rho_e = 1.30 \text{ E}^{-5} (\text{\AA}^{-2})$; (C) Al electrode, $\rho_e = 2.65 \text{ E}^{-5} (\text{\AA}^{-2})$; (D) ITO, $\rho_e = 6.20 \text{ E}^{-5} (\text{\AA}^{-2})$;