## **Supplementary Pages (Optional)**

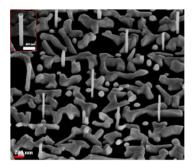


Figure 1 SEM image of  $GaAs_{1-x}Sb_x$  (x = 0.1) NWs grown on graphene.

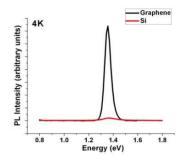
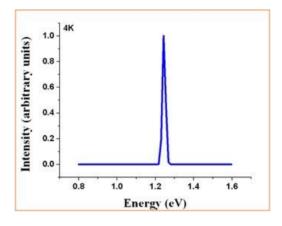


Figure 2 4K  $\mu$  - photoluminescence spectra of single nanowire (SNW) grown on graphene and Si substrates.

## 4K µ-photo luminescence spectroscopy



## **X-Ray Diffraction**

