Table 1: Calculated surface area, single pore volume and pore radius for all the as-synthesized samples.

| Sample          | Single point S/A | Single Pore volume (cc/g) | Pore diameter(Å) |
|-----------------|------------------|---------------------------|------------------|
| β-In$_2$S$_3$   | 52.1775 m$^2$/g  | 0.125958 cm$^3$/g         | 101.939 Å        |
| Co-doped β-In$_2$S$_3$ | 102.1553 m$^2$/g | 0.266258 cm$^3$/g         | 95.507 Å         |

Figure S1: Line scan of a Co-doped β-In$_2$S$_3$ indicating cobalt presence in the doped sample.