Electronic Supplementary Material (ESI) for Dalton Transactions.

Supporting information for

Synthesis of colloidal InSb nanocrystals *via in situ* activation of $InCl_3$.

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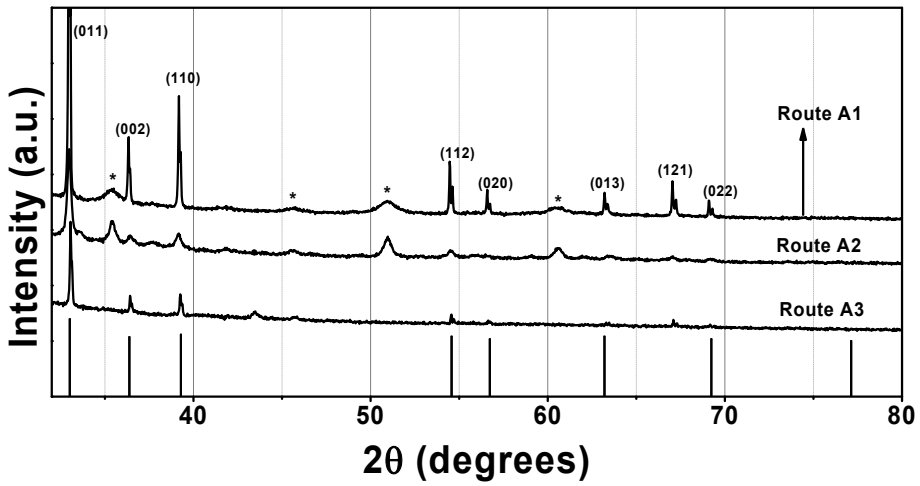

Figure S1: XRD spectra of metallic Indium (crystal structure: tetragonal) obtained from various routes (A1, A2 and A3) described in scheme 1 of the article. Route A1 denotes the product obtained from injection of $Li[N(SiMe_3]_2$ into a TOA solution containing $InCl_3$ at 250°C and heated for 5 minutes at 230°C. Route A2 denotes the product obtained from injection of *n*BuLi into a TOA solution containing InCl3 at 250°C and heated for 5 minutes at 230°C. Route A3 denotes the product obtained from reduction of $InCl_3$ by $LiBHEt_3$ (superhydride). * denotes the presence of LiCl impurities. (Reference: ICSD # 109033).

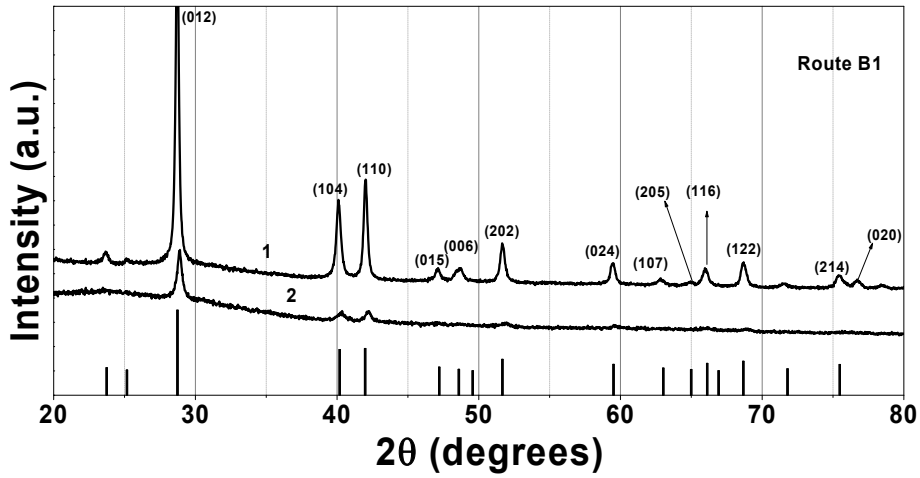

Figure S2: XRD spectra of antimony (crystal structure: rhombohedral) obtained from route B1 described in scheme 1. Spectrum 1 represents XRD of pure Sb is obtained by injecting $Sb[NMe_2]_3$ into a TOA solution at 250°C and heated for 5 minutes at 230°C. Spectrum 2 denotes the product obtained from injection of $Sb[NMe_2]_3$ into a TOA solution containing $InCl_3$ (but no activator) at 250°C and heated for 5 minutes at 230°C. (Reference: ICSD # 64696)

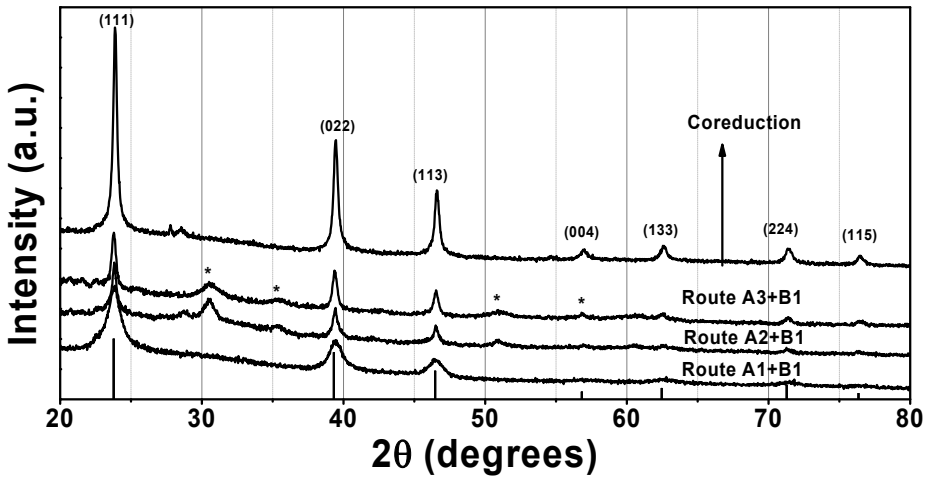

Figure S3: XRD spectra of InSb NCs (crystal structure: zinc blende) obtained from various routes described in scheme 1. A1+B1 is obtained by injecting a mixture of $Li[N(SiMe_3]_2$ and $Sb[NMe_2]_3$ in TOA into a hot TOA solution containing $InCl_3$ at 250 ^oC and heated for 5 minutes at 230 ^oC. A2+B1 is obtained by injecting a *n*BuLi and $Sb[NMe_2]_3$ in TOA into a hot TOA solution containing $InCl_3$ at and heated for 5 minutes at 230^oC. A3+B1 is obtained by injecting a LiBHEt3 and $Sb[NMe_2]_3$ in TOA into a hot TOA solution containing InCl3 at 250^oC and heated for 5 minutes at 230 ^oC. A3+B2 product is obtained by coreduction of $In(OAc)_3$ and $Sb(OAc)_3$ using superhydride ($LiBHEt_3$). (Reference: ICSD # 640424)

Table S1: Products of the various reactions outlined in the scheme 2

Sr. No.	Route	XRD Product
1	A1+B1	InSb
2	A2+B1	InSb
3	A3+B1	InSb
4	A1	In
5	A2	In
6	A3	In
7	B1	Sb