Supporting Information

Rare earth indates (RE: La-Yb): Influence of synthesis route and heat treatment on crystal structure

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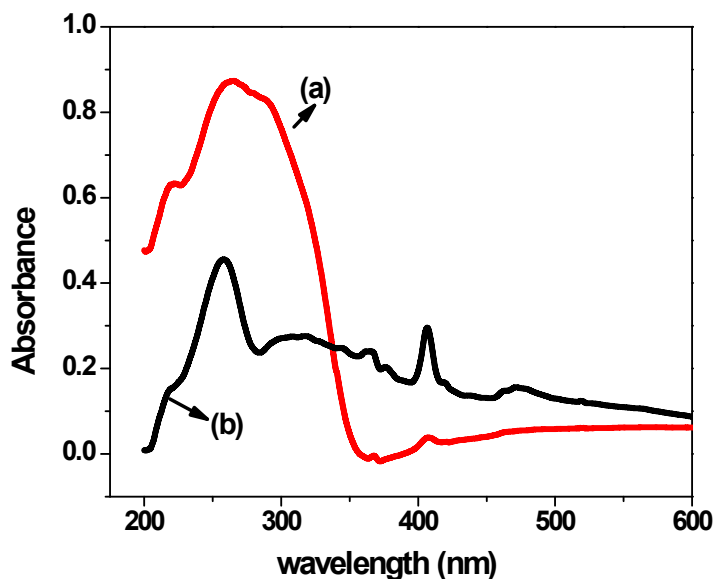[e]*Homi Bhabha National Institute, Mumbai- 400094, India*

Figure S1: DR-UV plot for (a) hexagonal $SmInO_3$ and (b) orthorhombic $SmInO_3$.
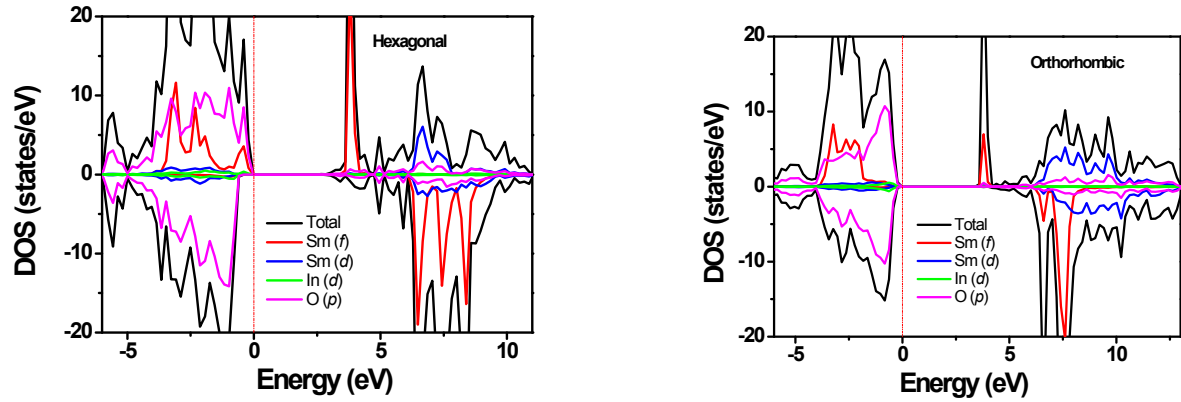
Figure S2: Spin polarised total and projected density of states (DOS) of (a) Hexagonal and (b) orthorhombic SmInO$_3$ calculated using HSE06 method.
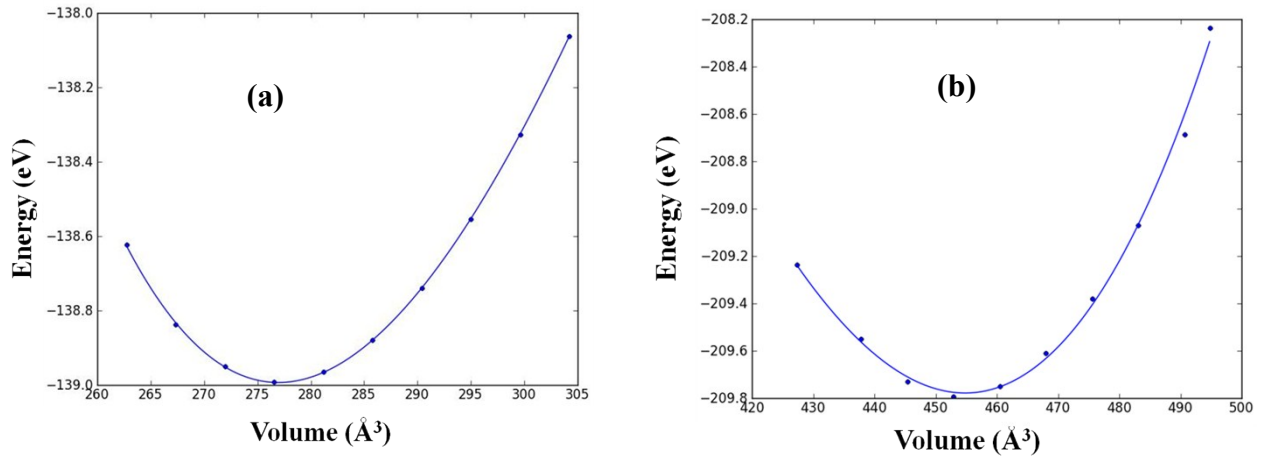

Figure S3. Variation of energy with volume fitted to Birh-Murnaghan equation of state for (a) Orthorhombic and (b) Hexagonal SmInO$_3$.
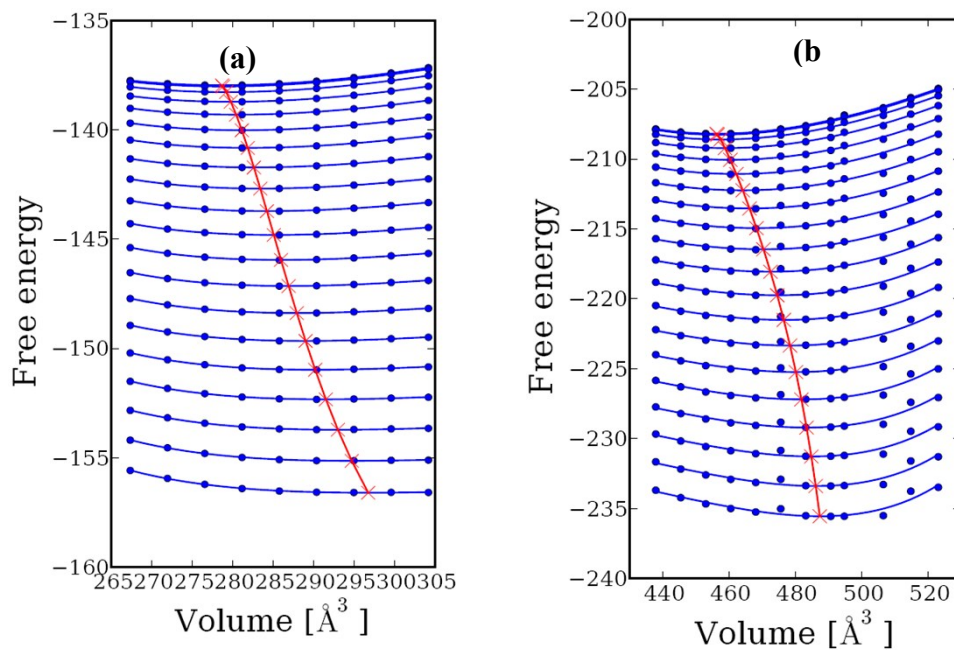
Figure S4. Variation of free energy with respect to volume at different temperatures from 0 K to 2000 K for (a) Orthorhombic and (b) Hexagonal $SmInO_3$.