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## Structural investigations of ferroelectric topological insulators

$\text{Pb}_{1-x}\text{Ge}_x\text{Te}$  and  $\text{Pb}_{1-x}\text{Sn}_x\text{Te}$  are novel pseudo-binary alloys that are widely studied for their reversible ferroelectric phase transition between cubic  $O_h$  and rhombohedral  $C_{3v}$  structures at temperatures above and below the phase transition, accompanied by anomalies in properties like resistivity and specific heat. The transition temperature  $T_c$  can be tuned by varying the concentration of Ge or Sn.

Here we use Temperature- dependent Xray diffraction (XRD), Transport measurements and Extended Xray Absorption Fine Structure (EXAFS) measurements to understand the ferroelectric phase transition and local structure during the same for ferroelectric epitaxial layers grown using Molecular Beam Epitaxy (MBE).

### References

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