Electronic Supplementary Information (ESI)

Enhanced Seebeck coefficient and high thermoelectric performance in *p*-type In and Mg co-doped $Sn_{1-x}Pb_xTe$ *via* co-adjuvant effect of resonance level and heavy hole valence band

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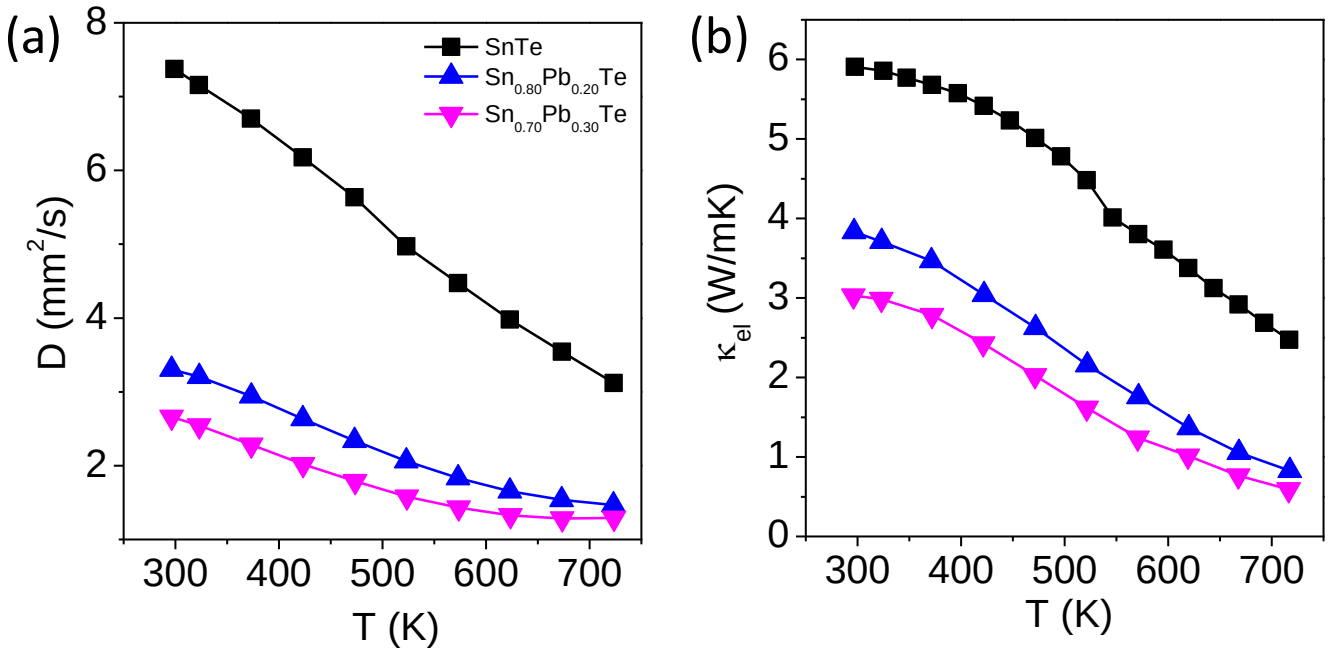

Fig. S1: Temperature dependent (a) thermal diffusivity (D) and (b) electronic thermal conductivity (κ_{el}) of $Sn_{1-x}Pb_xTe$ (x = 0-0.30) samples.

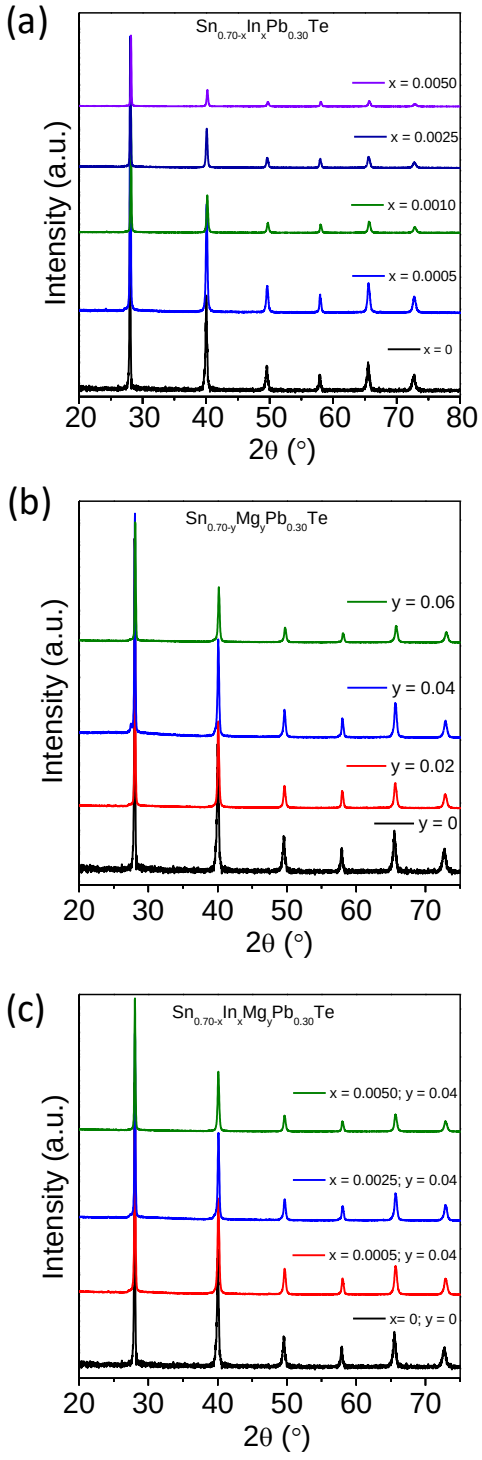

Fig. S2: Powder XRD patterns of (a) $Sn_{0.70-x}In_xPb_{0.30}Te$; (b) $Sn_{0.70-y}Mg_yPb_{0.30}Te$ and (c) $Sn_{0.70-x-y}In_xMg_yPb_{0.30}Te$ samples.

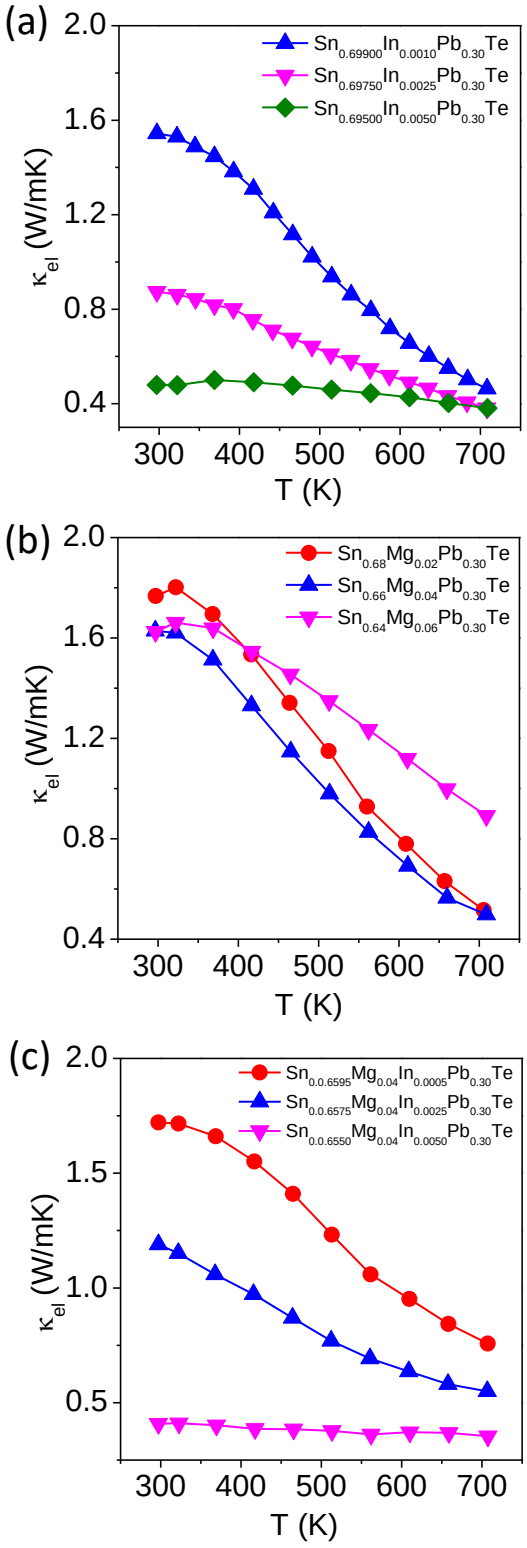

Fig. S3: Temperature dependent electronic thermal conductivity (κ_{el}) of (a) $Sn_{0.70-x}In_xPb_{0.30}Te$; (b) $Sn_{0.70-y}Mg_yPb_{0.30}Te$ and (c) $Sn_{0.70-x-y}In_xMg_yPb_{0.30}Te$ samples.

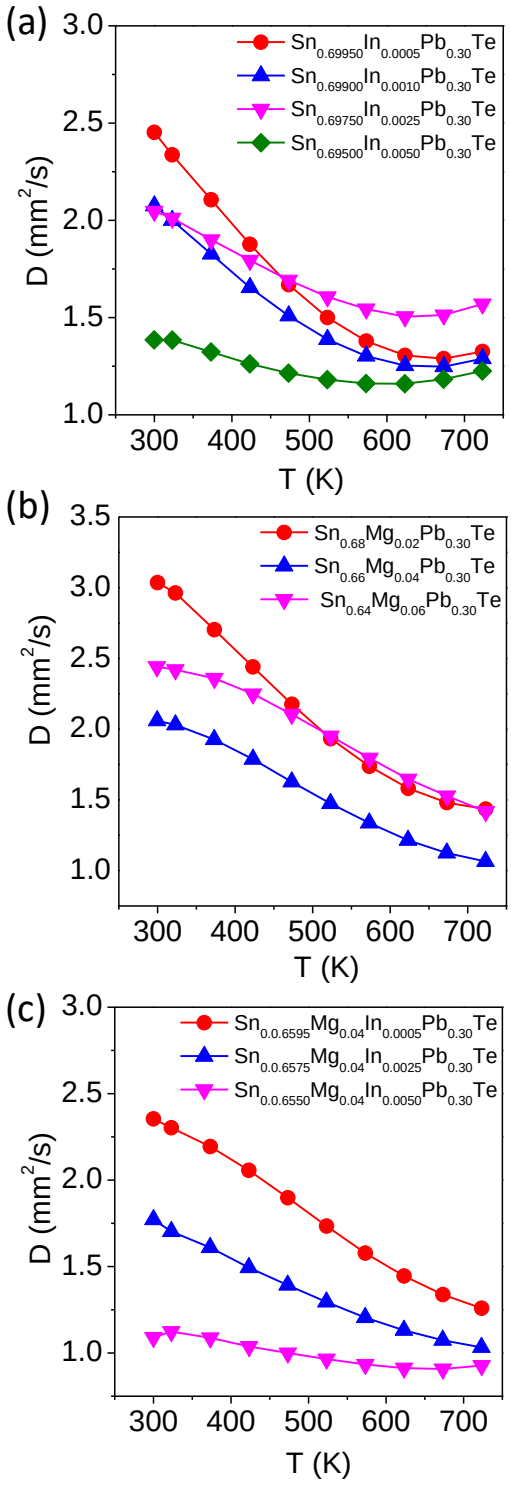

Fig. S4: Temperature dependent thermal diffusivity (D) of (a) $Sn_{0.70-x}In_xPb_{0.30}Te$; (b) $Sn_{0.70-y}Mg_yPb_{0.30}Te$ and (c) $Sn_{0.70-x-y}In_xMg_yPb_{0.30}Te$ samples.