Electronic Supplementary Information

Effects of Ge and Sn substitution on the metal-semiconductor transition and thermoelectric properties of Cu$_{12}$Sb$_4$S$_{13}$ tetrahedrite

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Fig. S1 Schematic picture of the density of states near the valence band top for Cu$_{12-x}M_x$Sb$_4$S$_{13}$ ($M = $ Ge, Sn) and Cu$_{12-x}Zn_x$Sb$_4$S$_{13}$.

Fig. S2 Temperature dependence of charge carrier part of thermal conductivity $\kappa_c$ for (a) $M = $ Ge and (b) $M = $ Sn of Cu$_{12-x}M_x$Sb$_4$S$_{13}$ ($x \leq 0.6$).