

Supporting Information (SI)

**Reduction of thermal conductivity through nanostructuring
enhances the thermoelectric figure of merit in $\text{Ge}_{1-x}\text{Bi}_x\text{Te}$**

Suresh Perumal,[†] Subhajit Roychowdhury,[†] and Kanishka Biswas *

[†]New Chemistry Unit, Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR),

Jakkur P.O., Bangalore 560064 (India)

[†]SP and SR hold equal first authorship

**E-mail: kanishka@jncasr.ac.in*

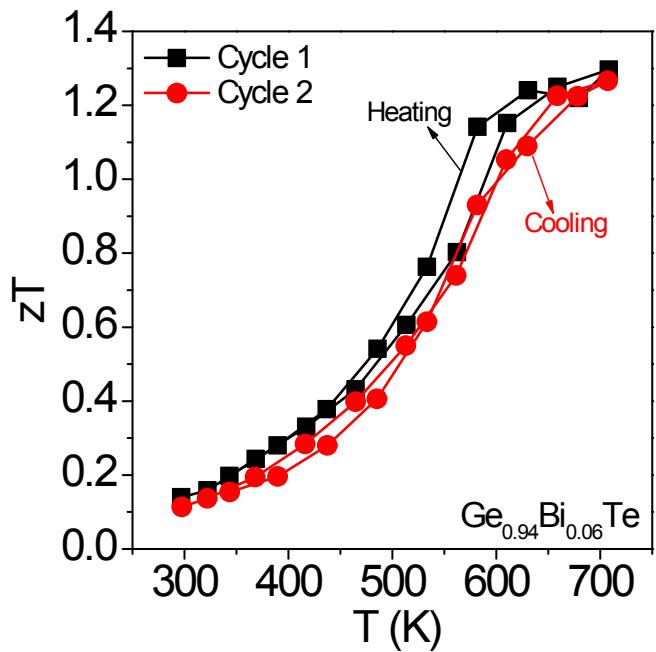


Fig. S1 Two cycles of heating and cooling zT data of $\text{Ge}_{0.94}\text{Bi}_{0.06}\text{Te}$.

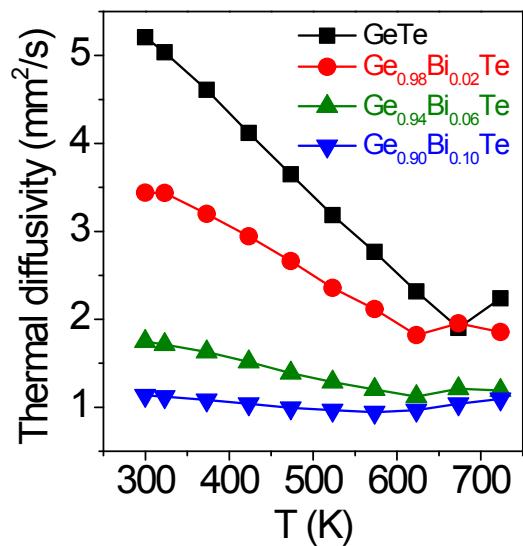


Fig. S2 Temperature dependent thermal diffusivity of $\text{Ge}_{1-x}\text{Bi}_x\text{Te}$ ($x = 0-0.10$) samples.

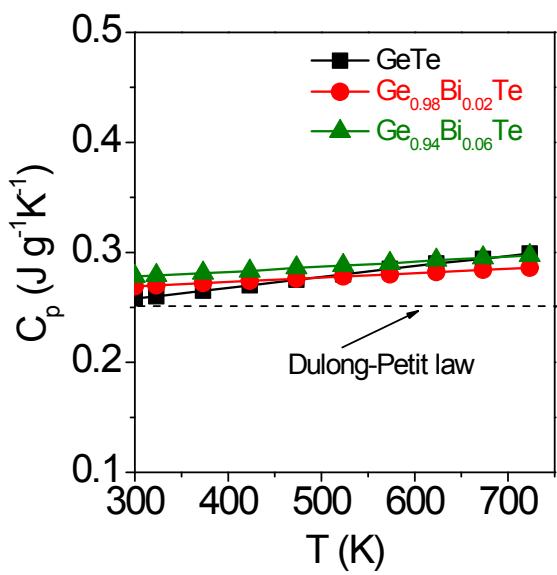


Fig. S3 Dulong-Petit and experimentally measured C_p of $\text{Ge}_{1-x}\text{Bi}_x\text{Te}$ as a function of temperature.

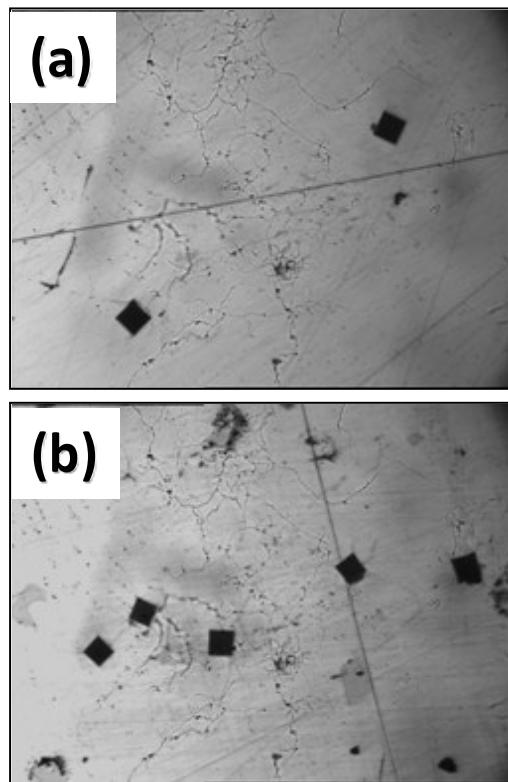


Fig. S4 Optical micrographs of Vickers microhardness impressions of (a) GeTe and (b) $\text{Ge}_{0.94}\text{Bi}_{0.06}\text{Te}$.

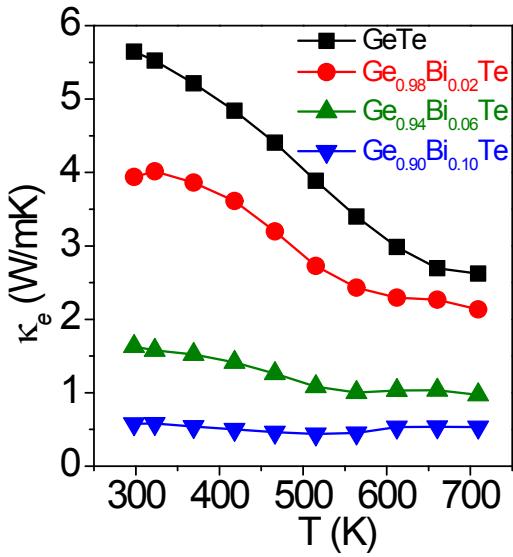


Fig. S5 Temperature dependent electronic thermal conductivity of $Ge_{1-x}Bi_xTe$ ($x = 0-0.10$) samples.

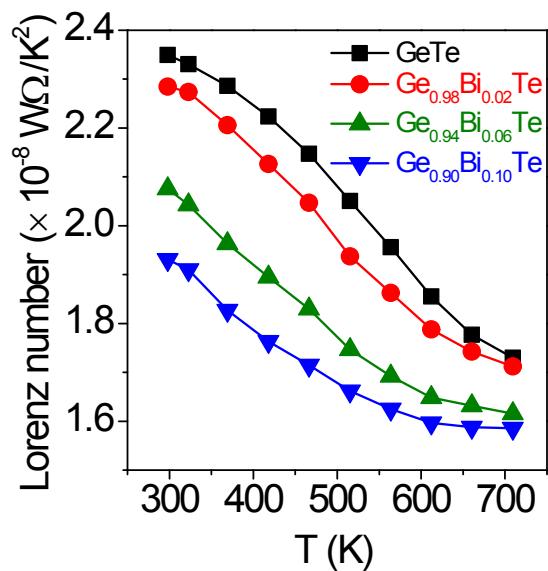


Fig. S6 Temperature dependent Lorenz number as a function of temperature.