ADVANCED ENERGY MATERIALS

Supporting Information

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Weak Electron Phonon Coupling and Deep Level Impurity for High Thermoelectric Performance $Pb_{1\#x}Ga_xTe$

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Supplementary Information

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Xianli Su,[1,2] Shiqiang Hao,[3] Trevor P. Bailey,[4] Si Wang, [1,4] Ido Hadar,[2] Gangjian Tan,[2] Tze-bin Song,[2] Qingjie Zhang,[1] Ctirad Uher,[4] Chris Wolverton,[3] Xinfeng Tang,[*,1] Mercouri G. Kanatzidis[*,2,3]

[1] *State Key Laboratory of Advanced Technology for Materials Synthesis and Processing, Wuhan University of Technology, Wuhan 430070, China*

[2] *Department of Chemistry, Northwestern University, Evanston, IL 60208, USA*

[3] *Department of Materials Science and Engineering, Northwestern University, Evanston, IL 60208, USA*

[4] *Department of Physics, University of Michigan, Ann Arbor, MI 48109, USA*

Corresponding authors: X. T. (tangxf@whut.edu.cn), M. G. K. (m-kanatzidis@northwestern.edu).

Table S1. Density ρ for $Pb_{1-x}Ga_xTe$ samples (x=0.005, 0.01, 0.015, 0.02, 0.025, 0.03).

Nominal composition	Density ρ (g cm^{-3})
$Pb_{0.995}Ga_{0.005}Te$	7.92
$Pb_{0.99}Ga_{0.01}Te$	7.95
$Pb_{0.985}Ga_{0.015}Te$	7.96
$Pb_{0.98}Ga_{0.02}Te$	8.09
$Pb_{0.975}Ga_{0.025}Te$	7.83
$Pb_{0.97}Ga_{0.03}Te$	7.90

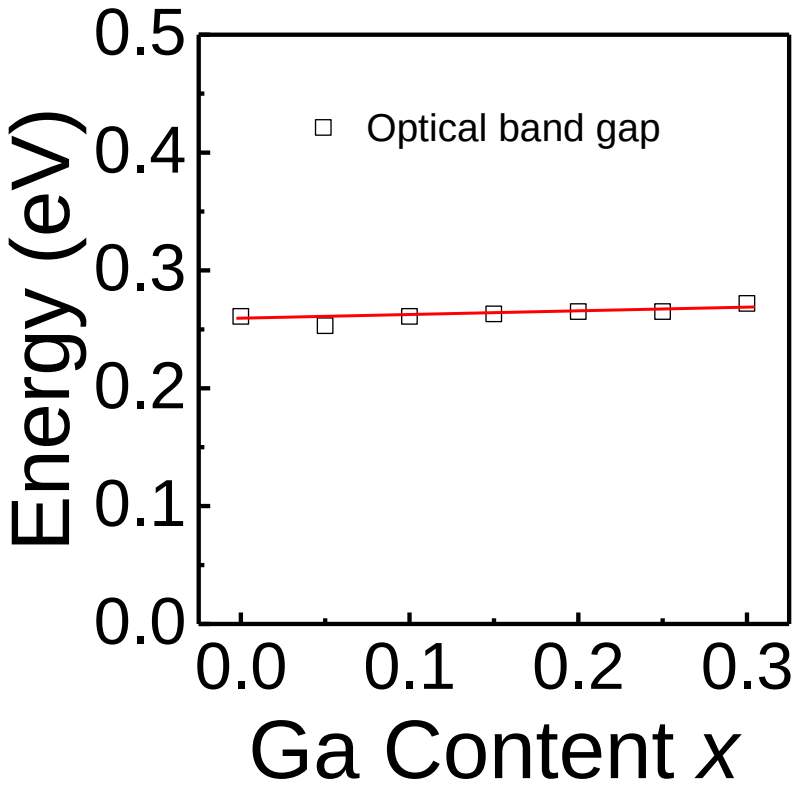

Figure S1: Room temperature optical band gap as a function of Ga content.

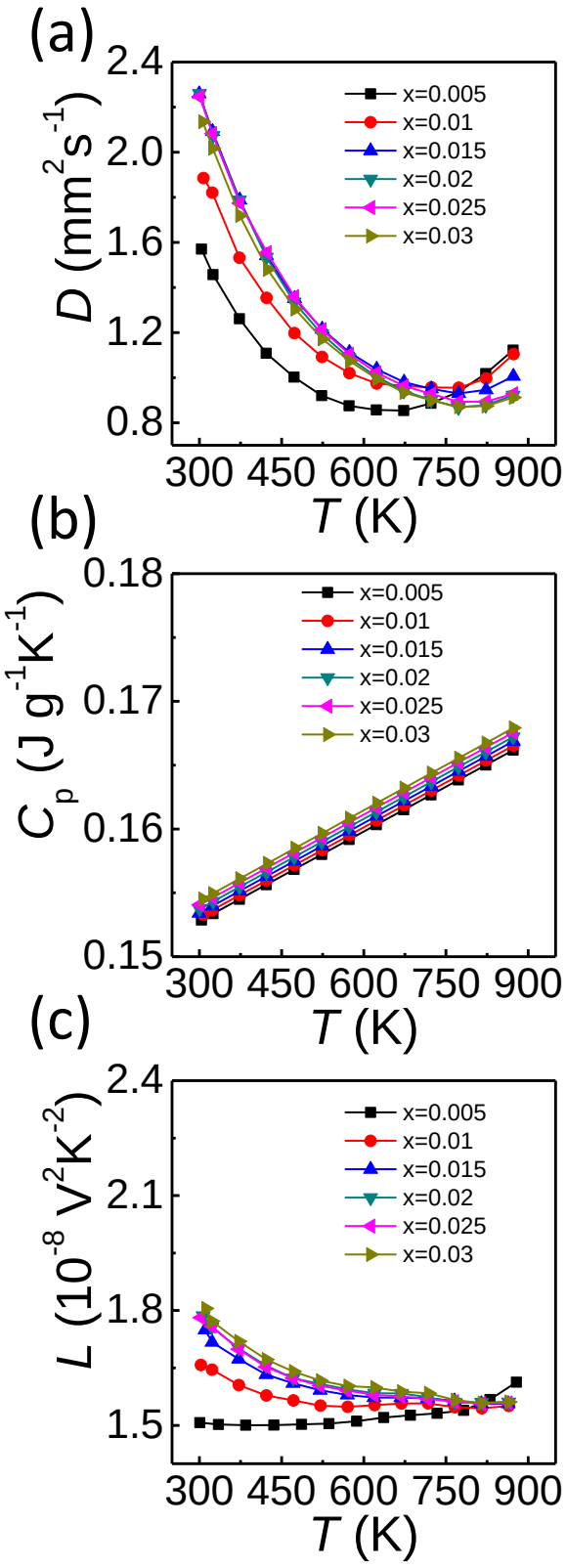

Figure S2: Temperature dependence of (a) Thermal diffusivity *D*, (b) Heat capacity C_p, and (c) Lorenz number *L* for $Pb_{1-x}Ga_xTe$ samples (x=0.005, 0.01, 0.015, 0.02, 0.025, 0.03).