Electronic Supplementary Material (ESI) for RSC Advances.

Supporting Informations:

Manuscript ID RA-ART-05-2014-004889. R1 entitled "Enhancing Thermoelectric Properties of p-type Mg_3Sb_2 - based Zintl Phase Compound by Pb Substitution in the Anionic Framework.

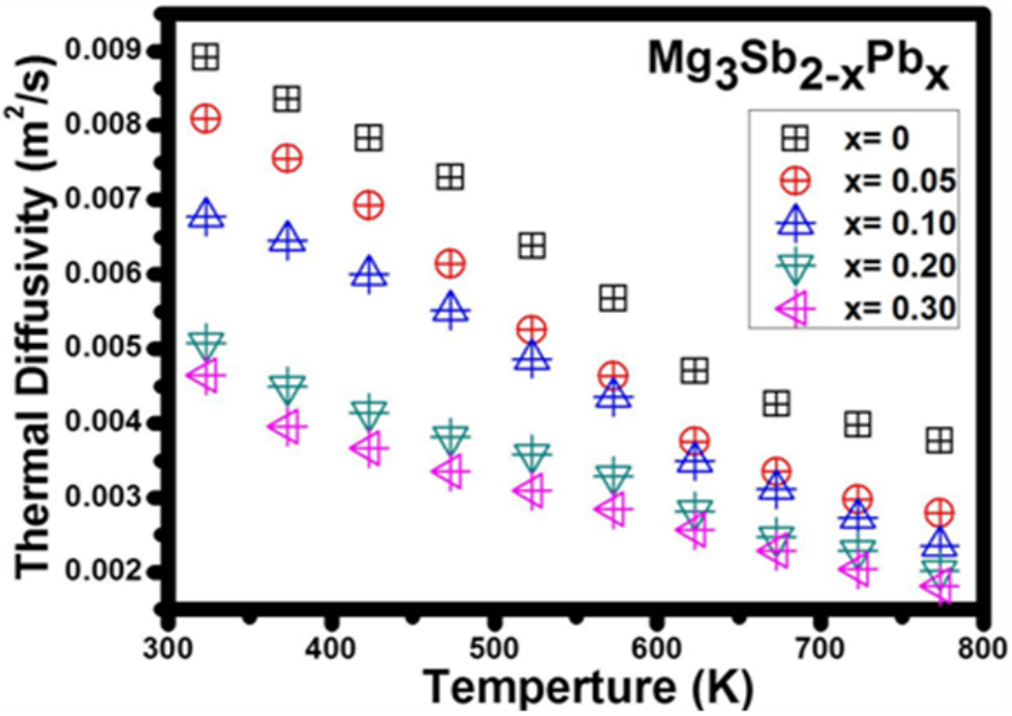

Figure S1

Figure S1: Temperature dependence of thermal diffusivity of $Mg_3Sb_{2-x}Pb_x$ ($0 \leq x \leq 0.3$).

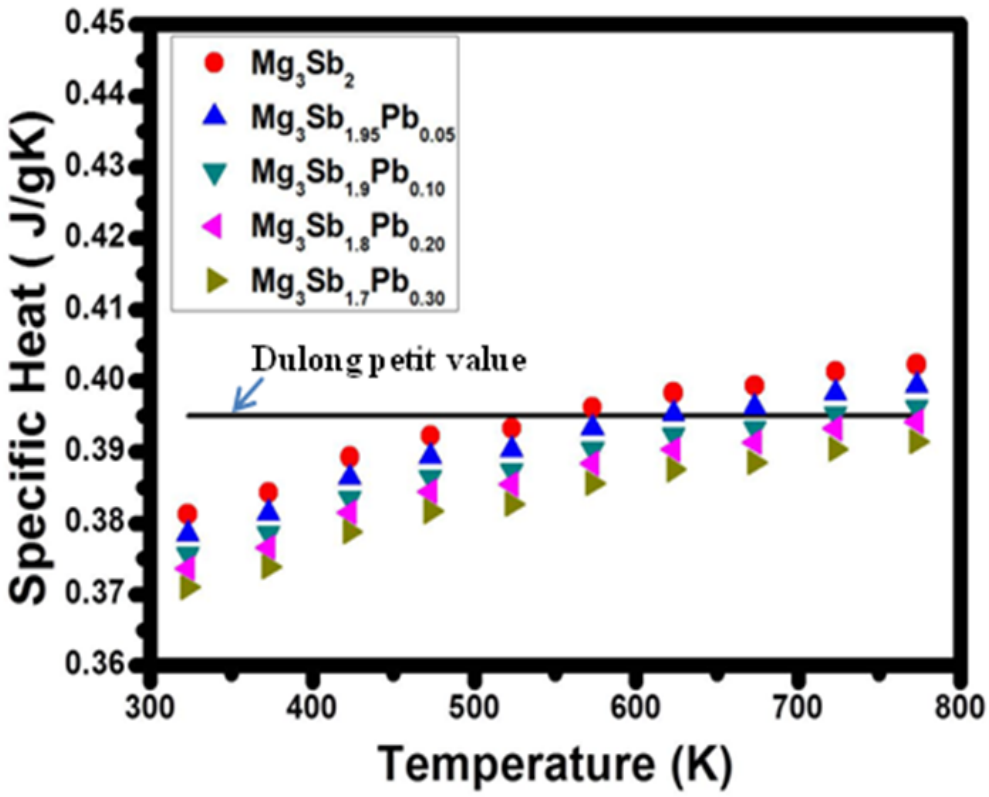

Figure S2

Figure S2: Temperature dependendent value of specific heat (C_p) of $Mg_3Sb_{2-x}Pb_x$ ($0 \leq x \leq 0.3$) samples with Dulong–Petit specific heat at constant volume.

Table T1. Density of all the samples with composition $Mg_3Sb_{2-x}Pb_x$ ($0 \leq x \leq 0.3$).

Compositions	Mg_3Sb_2	$Mg_3Sb_{1.95}Pb_{0.05}$	$Mg_3Sb_{1.9}Pb_{0.1}$	$Mg_3Sb_{1.8}Pb_{0.2}$	$Mg_3Sb_{1.7}Pb_{0.3}$
Density (g/cm^3)	3.94	3.87	3.95	3.85	3.89

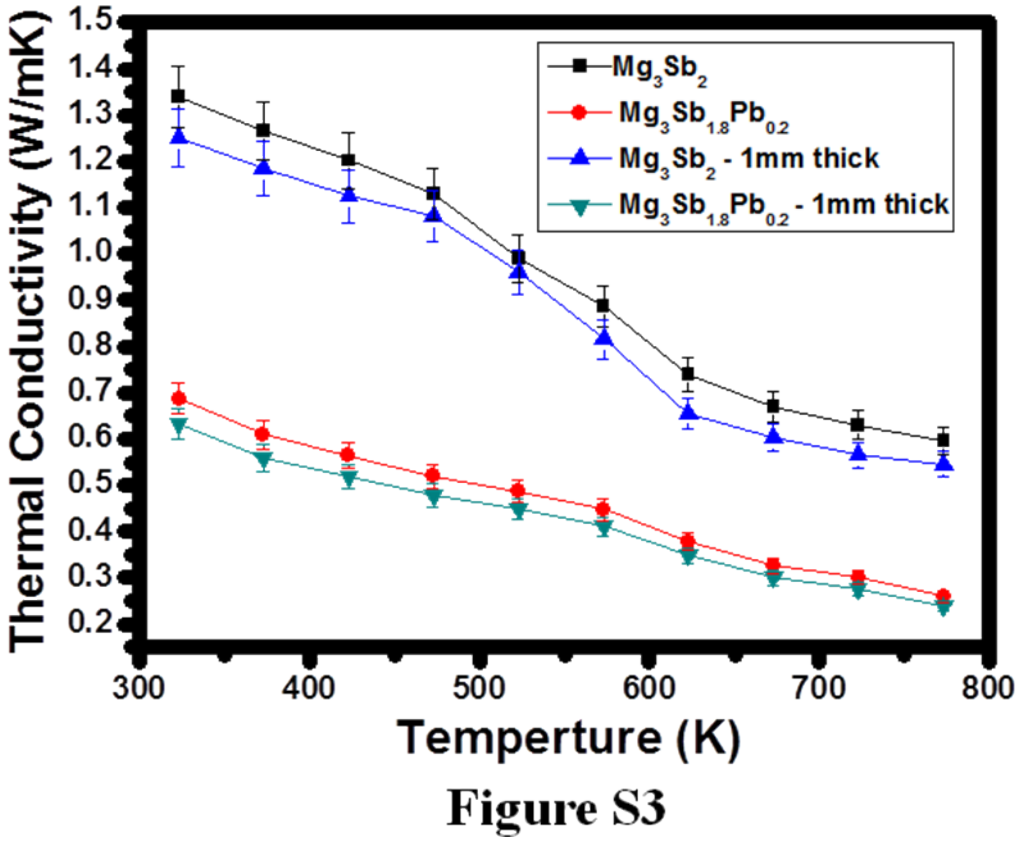

Figure S3

Figure S3: Comparison of temperature dependence of total thermal conductivity of Mg_3Sb_2 and $Mg_3Sb_{1.8}Pb_{0.2}$ measured on different thickness of 2.5 mm and 1.0 mm respectively.