

Supporting Information

Enhancement of thermoelectric performance of SnTe via Mn solubility control

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Table S1 Densities of $\text{Sn}_{1.03}\text{Te}$ and Ge, Mn and AgBiSe_2 -alloyed $\text{Sn}_{1.03}\text{Te}$.

Nominal composition	Density (g/cm^3)	Relative density (%)
$\text{Sn}_{1.03}\text{Te}$	6.276	97.2
$\text{Sn}_{1.03}\text{Te} + 3\% \text{AgBiSe}_2$	6.393	99.0
$\text{Sn}_{0.93}\text{Ge}_{0.1}\text{Te} + 3\% \text{AgBiSe}_2$	6.276	97.2
$\text{Sn}_{0.93}\text{Mn}_{0.1}\text{Te} + 3\% \text{AgBiSe}_2$	6.225	96.4
$\text{Sn}_{0.83}\text{Ge}_{0.1}\text{Mn}_{0.1}\text{Te} + 3\% \text{AgBiSe}_2$	6.188	95.8
$\text{Sn}_{0.73}\text{Ge}_{0.1}\text{Mn}_{0.2}\text{Te} + 3\% \text{AgBiSe}_2$	6.210	96.1

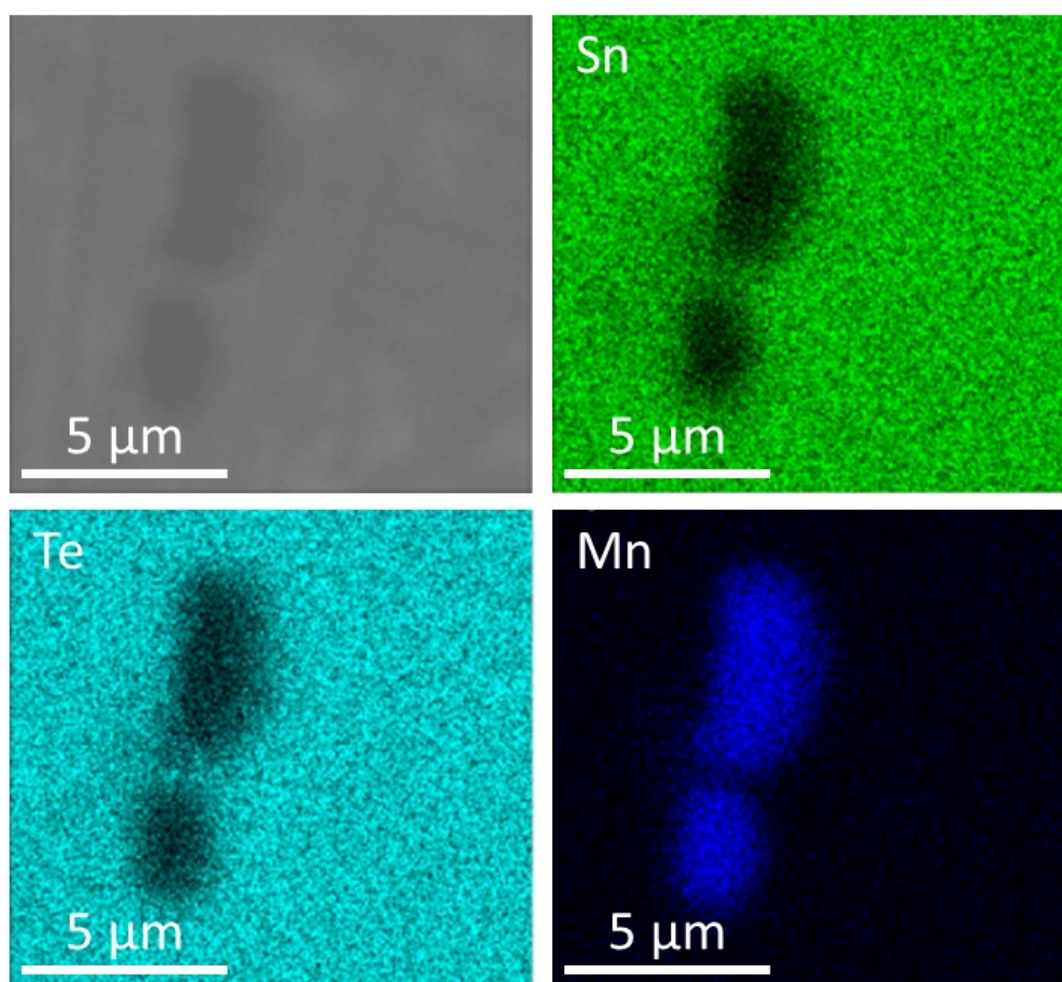


Figure S1 Scanning electron microscopy (SEM) image and the corresponding energy-dispersive X-ray spectroscopy (EDS) mapping of $\text{Sn}_{0.93}\text{Mn}_{0.1}\text{Te} + 3\% \text{AgBiSe}_2$.

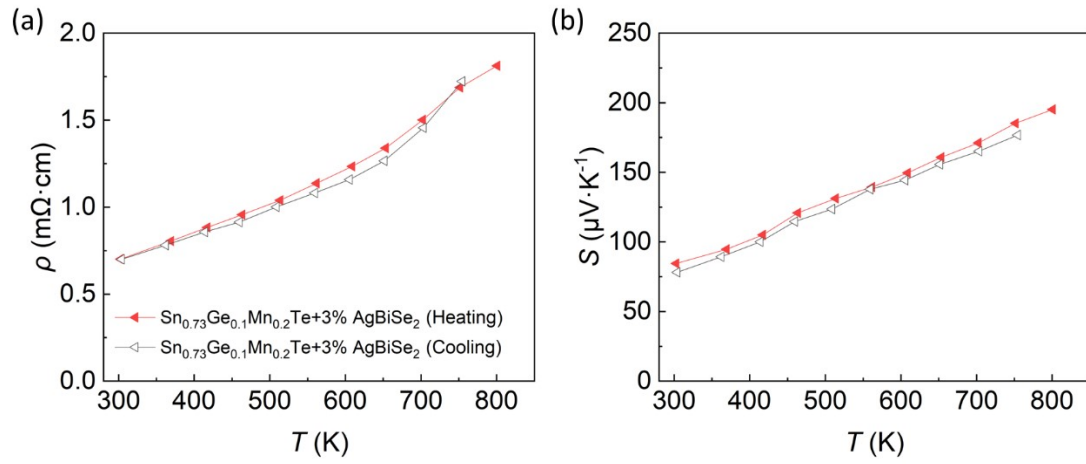


Figure S2 The temperature-dependent (a) electrical resistivity, (b) Seebeck coefficient, and (c) power factor of $\text{Sn}_{0.73}\text{Ge}_{0.1}\text{Mn}_{0.2}\text{Te} + 3\% \text{AgBiSe}_2$ during a heating-cooling cycle.