

Supplementary Information

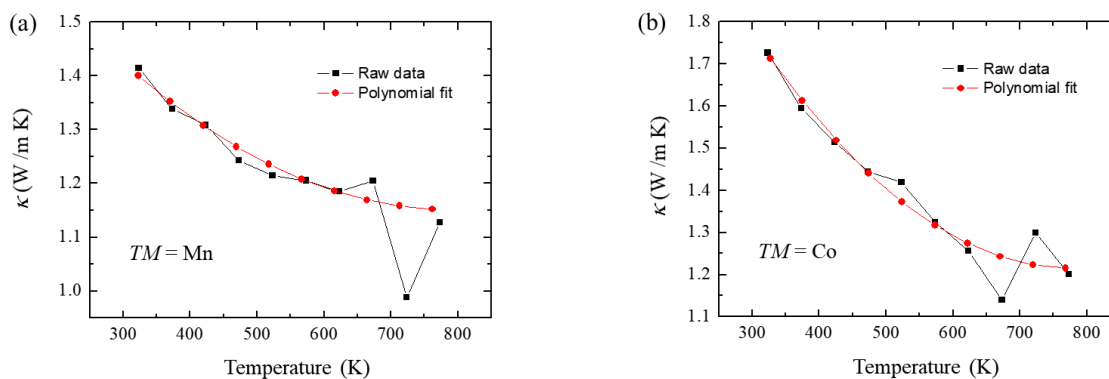
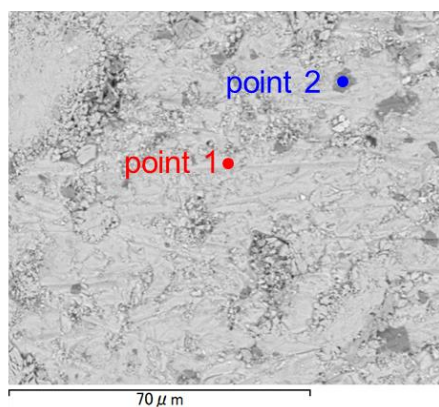


Fig. S1 (a), (b) Thermal conductivity of $\text{Sr}_2\text{MnCu}_2\text{Te}_2\text{O}_2$ and $\text{Sr}_2\text{CoCu}_2\text{Te}_2\text{O}_2$, respectively. Black square and red circle corresponds to the raw data and its polynomial fit result, respectively.



point 1

Element	Atomic %	ratio
Oxygen	36.56%	3.95
Cobalt	9.26%	1.00
Copper	18.07%	1.95
Strontium	17.95%	1.94
Tellurium	18.16%	1.96

point 2

Element	Atomic %	ratio
Oxygen	76.74%	-
Cobalt	0.21%	-
Copper	0.28%	-
Strontium	21.39%	-
Tellurium	1.39%	-

Fig. S2 SEM image and measured compositions by EDX for $\text{Sr}_2\text{CoCu}_2\text{Te}_2\text{O}_2$