

Supporting information for:

Enhanced thermoelectric figure of merit in p-type

Bi_{0.48}Sb_{1.52}Te₃ alloy with WSe₂ addition

Yukun Xiao, Guoxin Chen, Haiming Qin, Menglei Wu, Zhepeng Xiao, Jun Jiang*,

Jingtao Xu, Haochuan Jiang, Gaojie Xu

Ningbo Institute of Materials Technology and Engineering, Chinese Academy of

Sciences, Ningbo 315201, China

*Corresponding author. Tel: +86 574 87913381; Fax: +86 574 86685163; E-mail: jjun@nimte.ac.cn.

TEM images of BiSbTe with 4.0 mol% WSe₂

Several nanoprecipitates are found distributed widely in the TEM sample. More images showing microstructures of the alloy are given below, which are similar with the images in the manuscript.

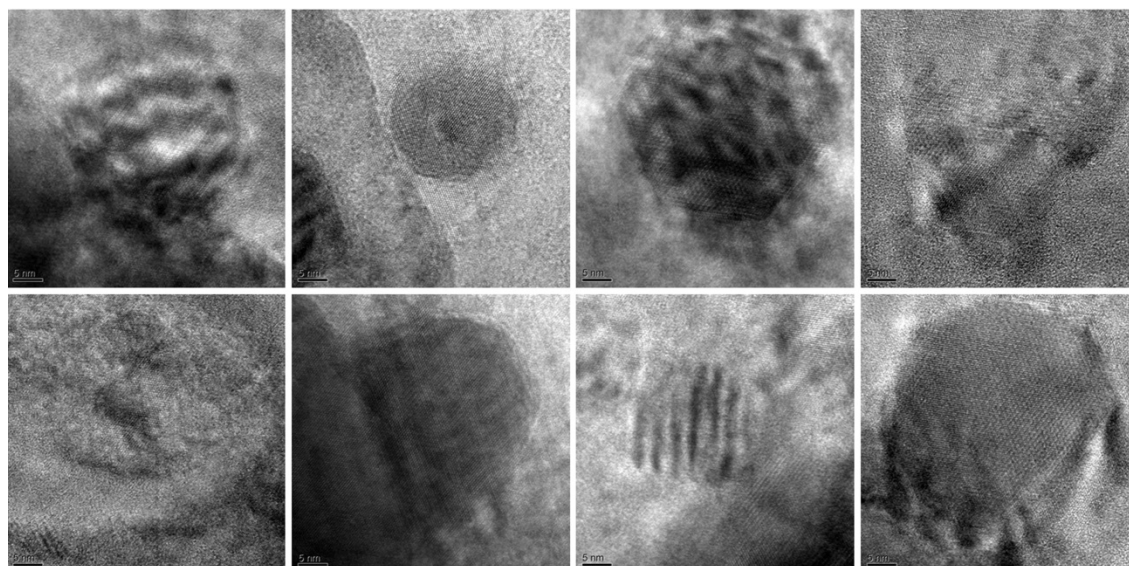


Figure S1. Microstructure images of BiSbTe with 4.0 mol% WSe₂.

Lorenz number vs. temperature

Lorenz number was obtained by applying the calculated reduced Fermi energy and scattering parameter assuming a single band model.

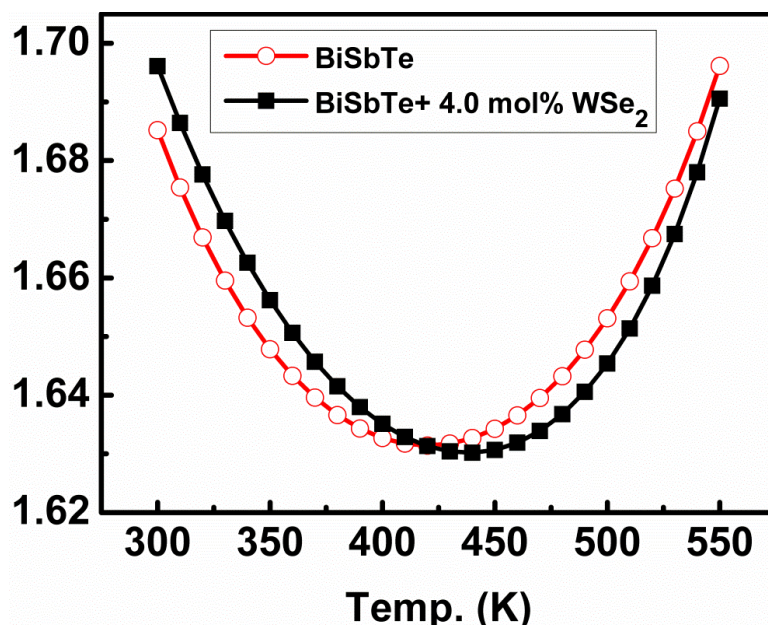


Figure S2. Lorenz number as a function of temperature for the samples.

1. A. F. May, J. P. Fleurial and G. J. Snyder, *Physical Review B*, 2008, **78**, 125205.
2. L. D. Zhao, J. Q. He, C. I. Wu, T. P. Hogan, X. Y. Zhou, C. Uher, V. P. Dravid and M. G. Kanatzidis, *Journal of the American Chemical Society*, 2012, **134**, 7902-7912.
3. S. Johnsen, J. Q. He, J. Androulakis, V. P. Dravid, I. Todorov, D. Y. Chung and M. G. Kanatzidis, *Journal of the American Chemical Society*, 2011, **133**, 3460-3470.
4. S. N. Girard, J. Q. He, X. Y. Zhou, D. Shoemaker, C. M. Jaworski, C. Uher, V. P. Dravid, J. P. Heremans and M. G. Kanatzidis, *Journal of the American Chemical Society*, 2011, **133**, 16588-16597.