

Weak Antilocalization in Polycrystalline SnTe Films Deposited by Magnetron Sputtering

Xiaodong Li ¹, Yang Yang ¹, Xiaocui Wang ^{2,3}, Peng Zhu ², Fanming Qu ³, Zhiwei Wang ² and Fan Yang ^{1,*}

¹ Center for Joint Quantum Studies and Department of Physics, School of Science, Tianjin University, Tianjin 300350, China; xiaodongli@tju.edu.cn (X.L.); yangyang2020@tju.edu.cn (Y.Y.)

² Centre for Quantum Physics, Key Laboratory of Advanced Optoelectronic Quantum Architecture and Measurement (MOE), School of Physics, Beijing Institute of Technology, Beijing 100081, China; wangxc_12@iphy.ac.cn (X.W.); zhupeng45@163.com (P.Z.); zhiweiwang@bit.edu.cn (Z.W.)

³ Beijing National Laboratory for Condensed Matter Physics, Institute of Physics, Chinese Academy of Sciences, Beijing 100190, China; fanmingqu@iphy.ac.cn

* Correspondence: fanyangphys@tju.edu.cn

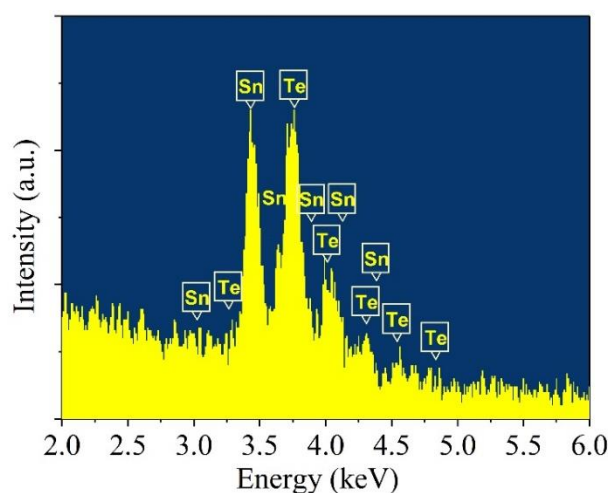


Figure S1. Energy dispersive X-ray spectrum of the as-deposited SnTe film. The atomic ratio of Sn:Te is measured to be 51.6: 48.4.

Citation: Li, X.; Yang, Y.; Wang, X.; Zhu, P.; Qu, F.; Wang, Z.; Yang, F. Weak Antilocalization in Polycrystalline SnTe Films Deposited by Magnetron Sputtering. *Crystals* **2022**, *12*, 773. <https://doi.org/10.3390/cryst12060773>

Academic Editors: Simona Binetti and Artem Pronin

Received: 3 May 2022

Accepted: 24 May 2022

Published: 26 May 2022

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2022 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

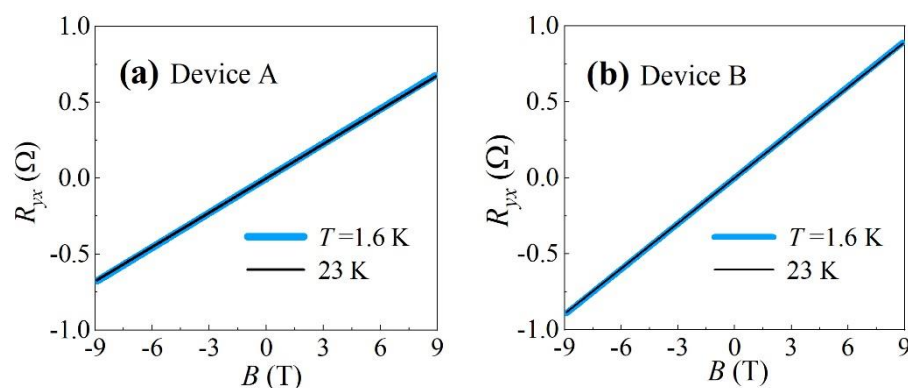


Figure S2. (a) Hall resistance of device A, measured at $T = 1.6\text{K}$ and 23K . (b) Hall resistance of device B, measured at $T = 1.6\text{K}$ and 23K .

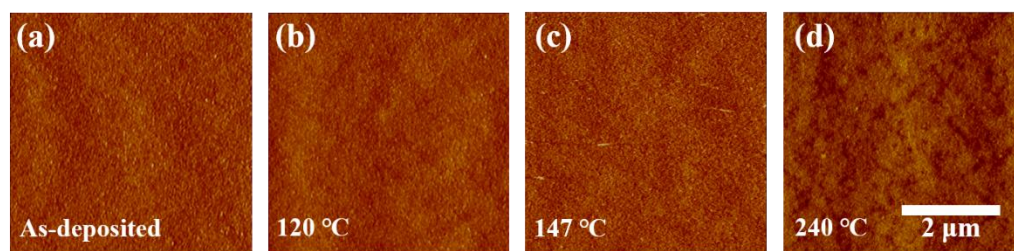


Figure S3. (a-d) AFM images of SnTe films annealed at various temperatures. The scanning area is $5 \times 5 \mu\text{m}^2$.