

Supplementary Information

**Suppressing current leakage and voltage drift in indium-modified
electrical switching devices**

Huan Wang,^a Yuhao Wang,^a Hengyi Hu,^a Shaojie Yuan,^a Qundao Xu,^a Hao Tong,^a
Yuting Sun,^b Min Zhu,^b Ming Xu,^{a,*} and Xiangshui Miao^a

^a*Wuhan National Laboratory for Optoelectronics, School of Integrated Circuits,
Huazhong University of Science and Technology, Wuhan 430074, China*

^b*School of Integrated Circuits, Shanghai Jiao Tong University, Shanghai, 200240
China*

*Corresponding author. E-mail address: mxu@hust.edu.cn (M.X.)

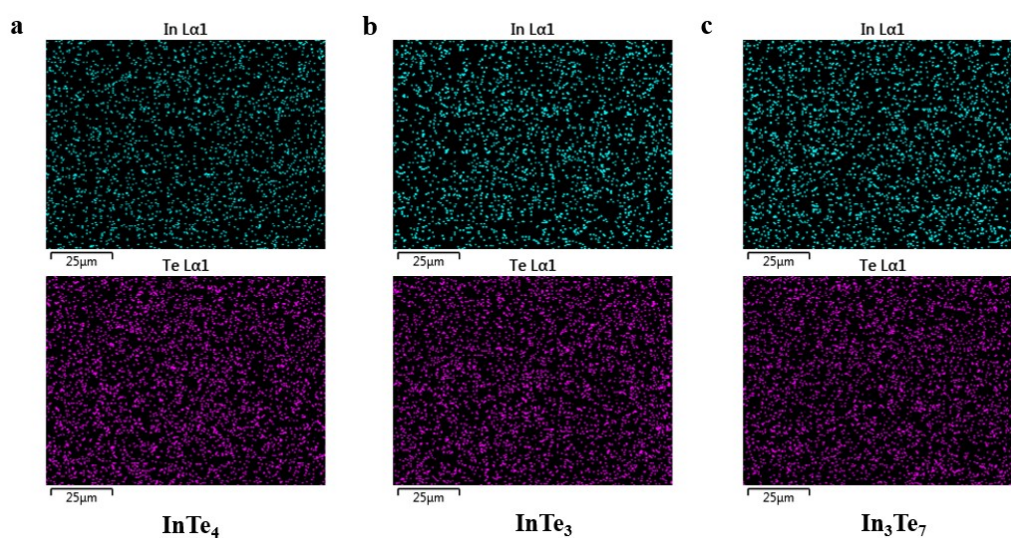


Fig. S1. EDS mappings of In, Te for InTe₄, InTe₃, and In₃Te₇ films.

<i>Table S1. The weight percentage and atomic percentage of In and Te obtained from the EDS mappings</i>			
InTe₄	Weight%	Wt% Sigma	Atom%
In	19.41	0.36	21.1
Te	80.56	0.36	78.9
InTe₃	Weight%	Wt% Sigma	Atom%
In	22.33	0.36	24.21
Te	77.67	0.36	75.79
In₃Te₇	Weight%	Wt% Sigma	Atom%
In	27.84	0.36	30.00
Te	72.16	0.36	70.00

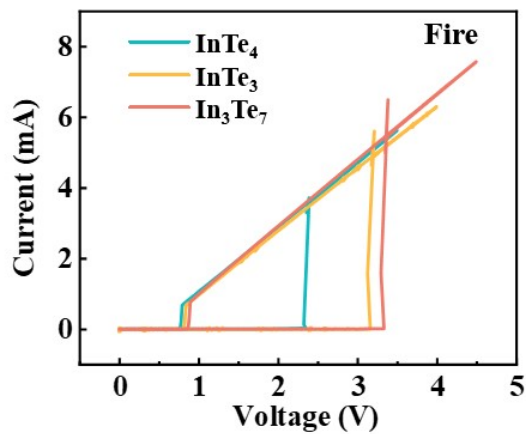


Fig. S2. Firing I–V characteristics of InTe₄, InTe₃, and In₃Te₇ OTS devices.

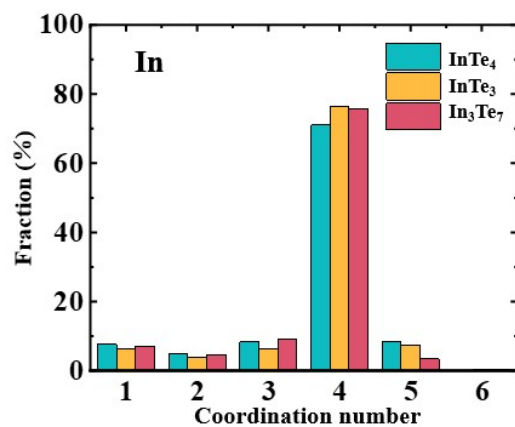


Fig. S3. Coordination numbers (CN) of In atoms in a-InTe₄, a-InTe₃, and a-In₃Te₇.

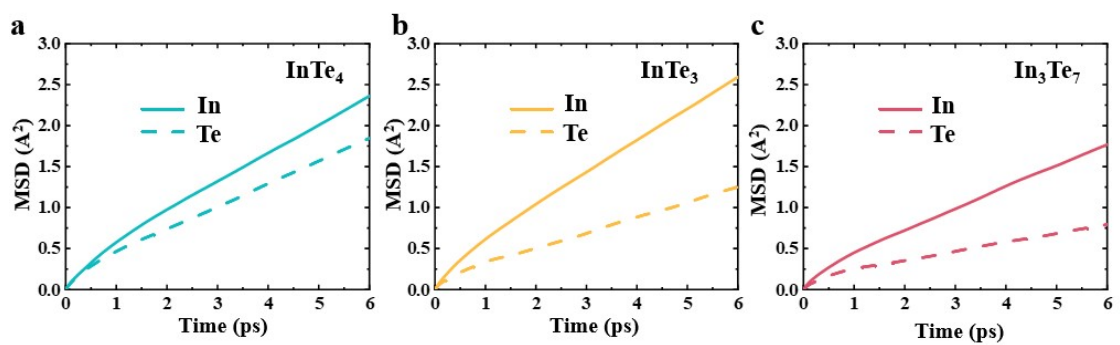


Fig. S4. Mean square displacement (MSD) of In and Te atoms in a-InTe₄, a-InTe₃, and a-In₃Te₇.