Supplementary Information

Breakthrough in High On-State Current Based on Ag-$GeTe_8$ Selectors

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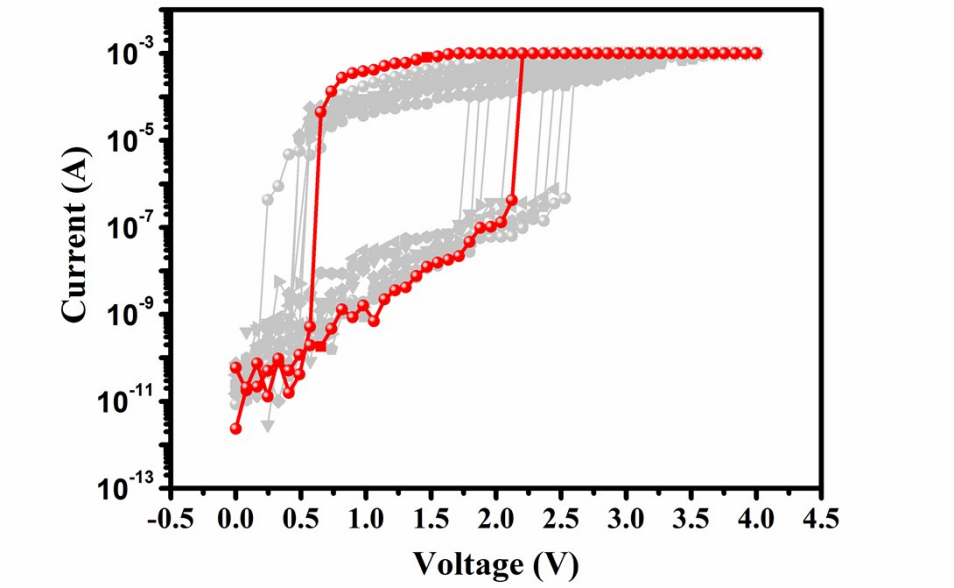

Fig. S1 The I-V curves of Al/TiN/$AgGeTe_8$/TiN/W device.

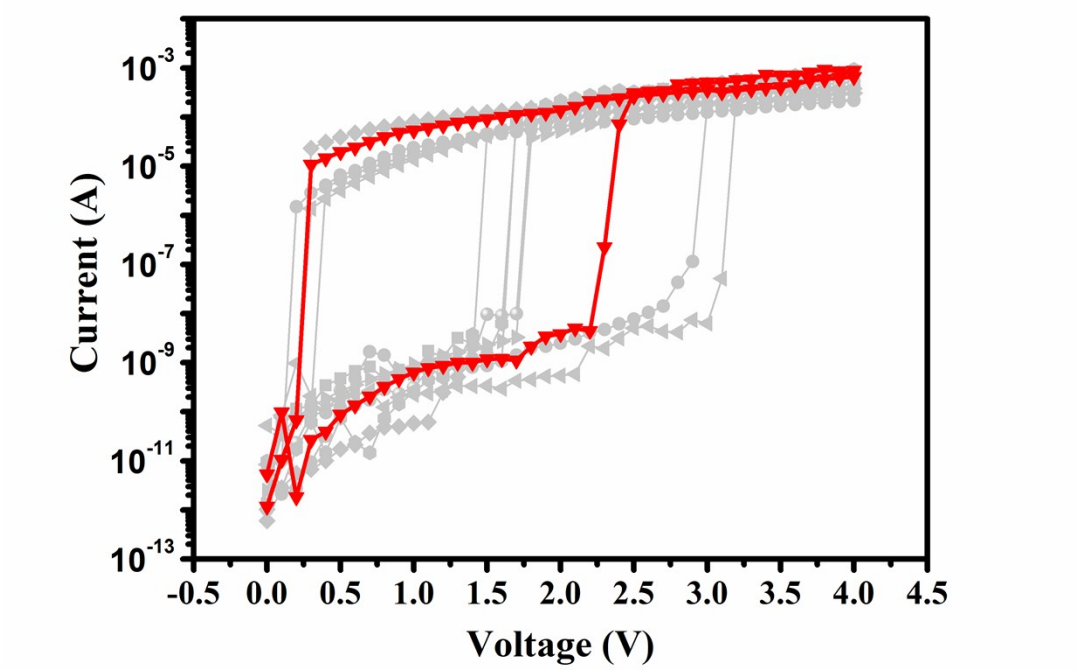

Fig. S2 The I-V curves of Al/TiN/$GeTe_8$/TiN/W device.

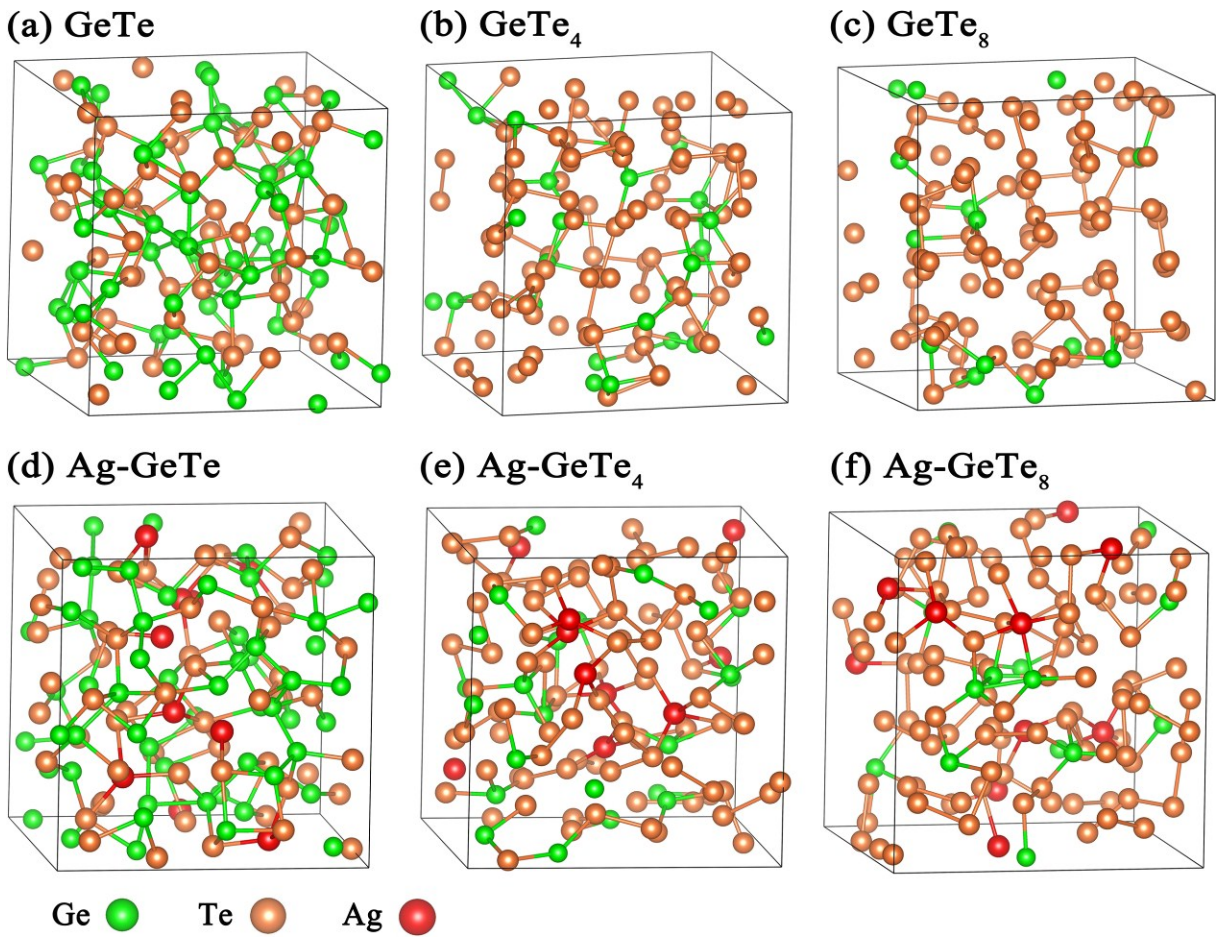

Fig. S3 (a)-(c) The amorphous structure of $GeTe_x$(x=1, 4, 8) at 300 K. (d)-(f) The amorphous structure of Ag-$GeTe_x$(x=1, 4, 8) at 300 K.

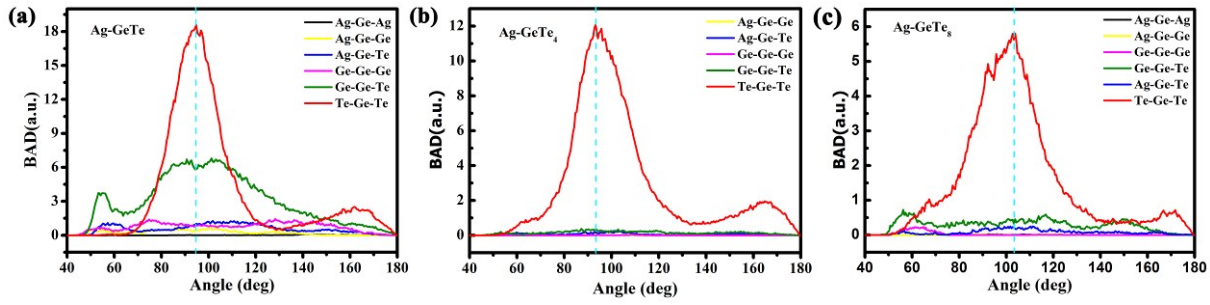

Fig. S4 Details of the bond angle distributions around Ge in a) Ag-GeTe. b) Ag-$GeTe_4$. c) Ag-$GeTe_8$. The bond angle distribution around Ge is almost derived from the contribution of the bond angle distribution of Te-Ge-Te.

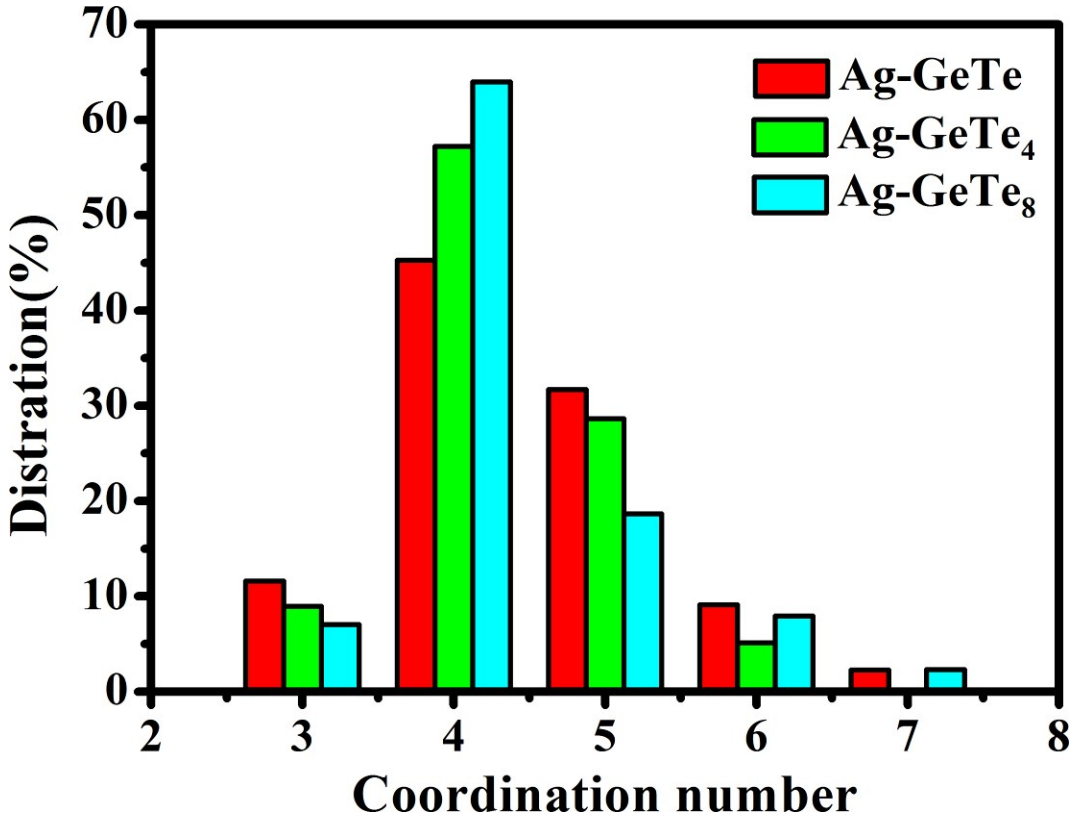

Fig. S5 Coordination number distributions of Ge in Ag-GeTe, Ag-$GeTe_4$ and Ag-$GeTe_8$. As the Te concentration increases, the proposion of four coordination number of Ge atoms increased from 45.3% to 57.2%, then to 64.0%, the five coordination number of Ge atoms decreased from 31.7% to 28.6%, then to 18.7%, and the six coordination number of Ge atoms decreased from 9.1% to 5.1%, then rose to 7.9%.