

Observation of van der Waals Reconfiguration in GeTe/Sb₂Te₃ Superlattice

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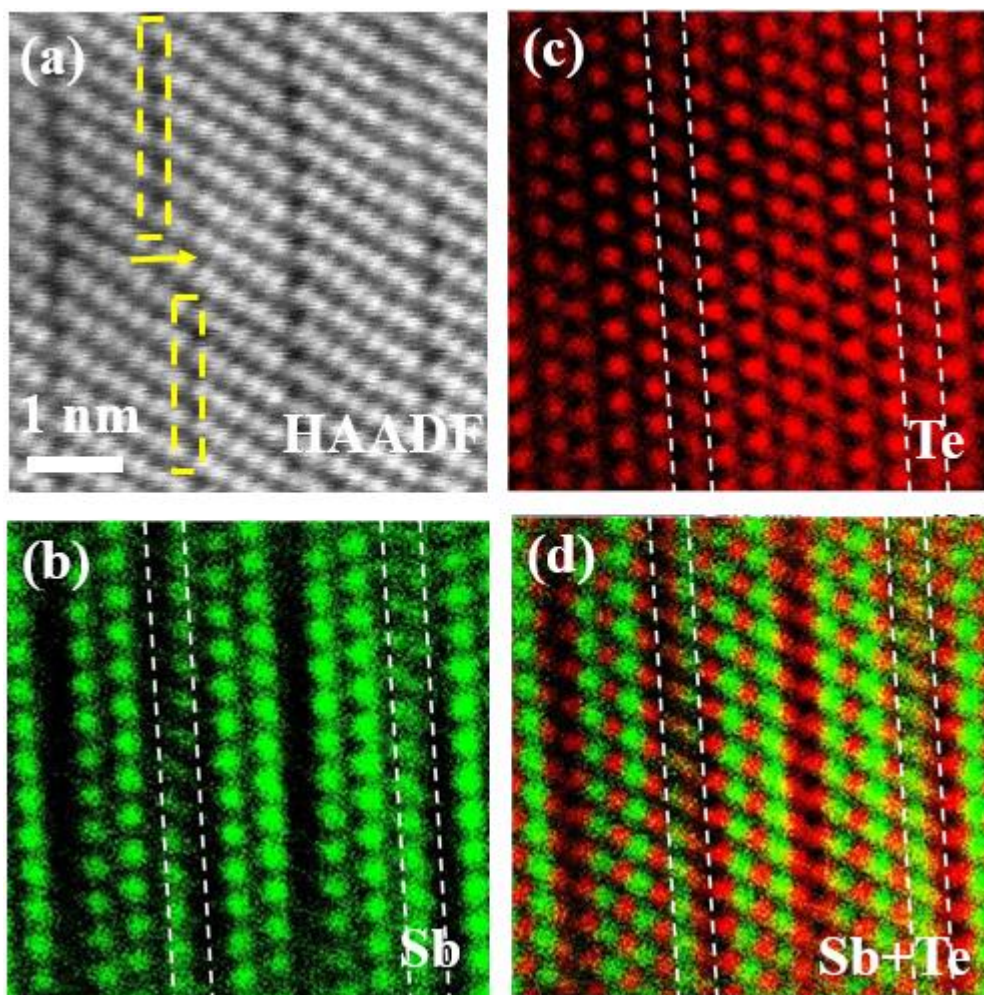


Fig. S1 (a) HAADF image splitting double layers in the region of 7-layer structure. Yellow dash square is the position of the gap and yellow arrow indicates the moving direction of the gap. (b-d) corresponding EDX maps of Sb, Te and Sb+Te, respectively.

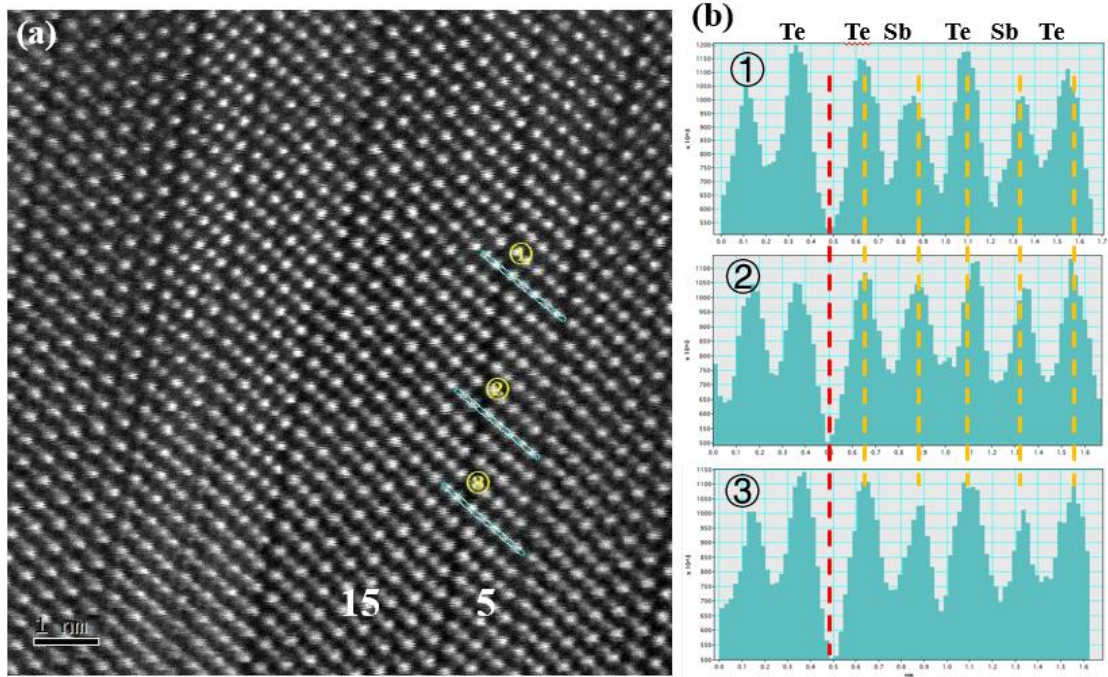


Fig. S2 Intensity profile indicating the absence of cation atoms among the gaps. (a) HAADF images of GeTe-Sb₂Te₃ SL showing the area with 15 and quintuple layer. (b) Intensity profile from HAADF images in (a), red dashed line marks the position of the gap.

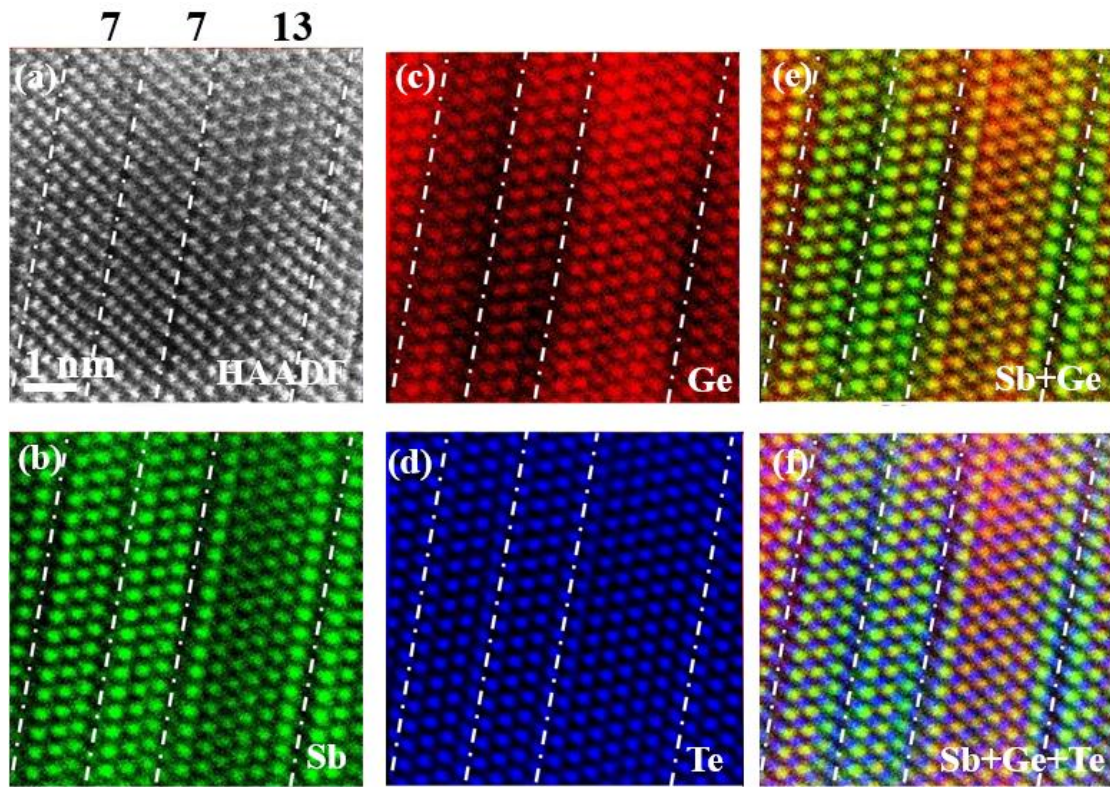


Fig. S3 (a) HAADF image of 7- and 13-layer structures in GeTe/Sb₂Te₃ SL. (b-d) corresponding EDX maps of Sb, Te and Sb+Te, respectively.

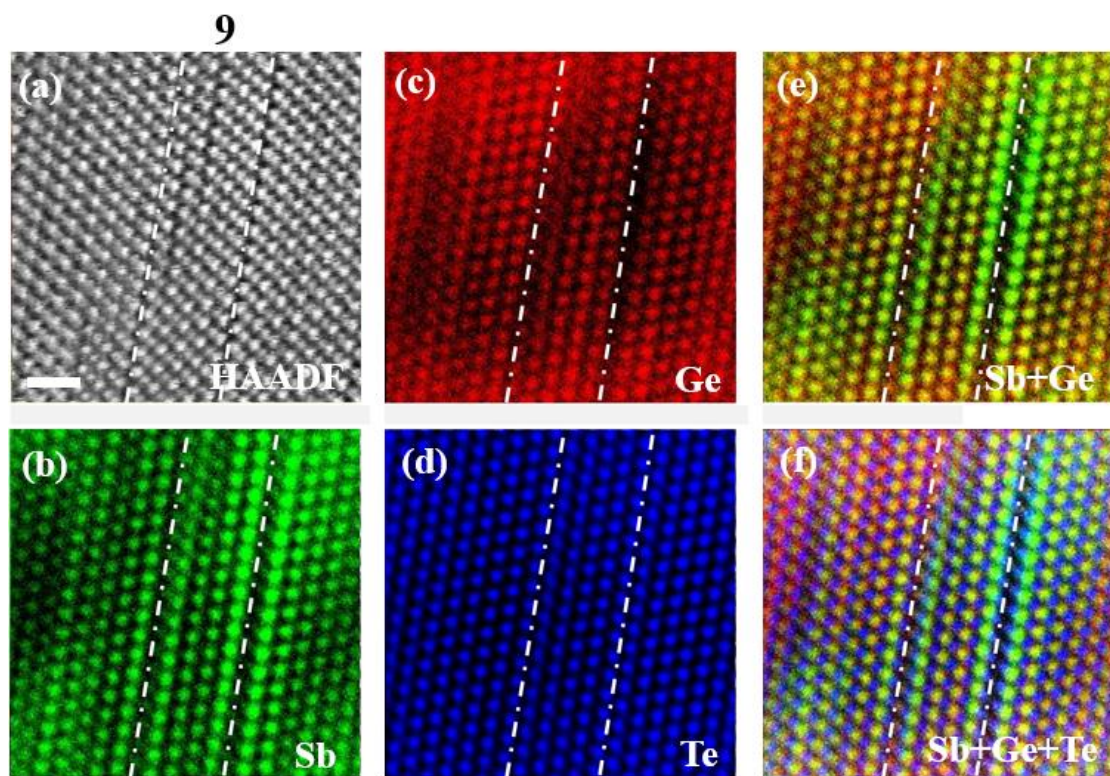


Fig. S4 (a) HAADF image of 9 layers in GeTe/Sb₂Te₃ SL. (b-d) corresponding EDX

maps of Sb, Te and Sb+Te, respectively.

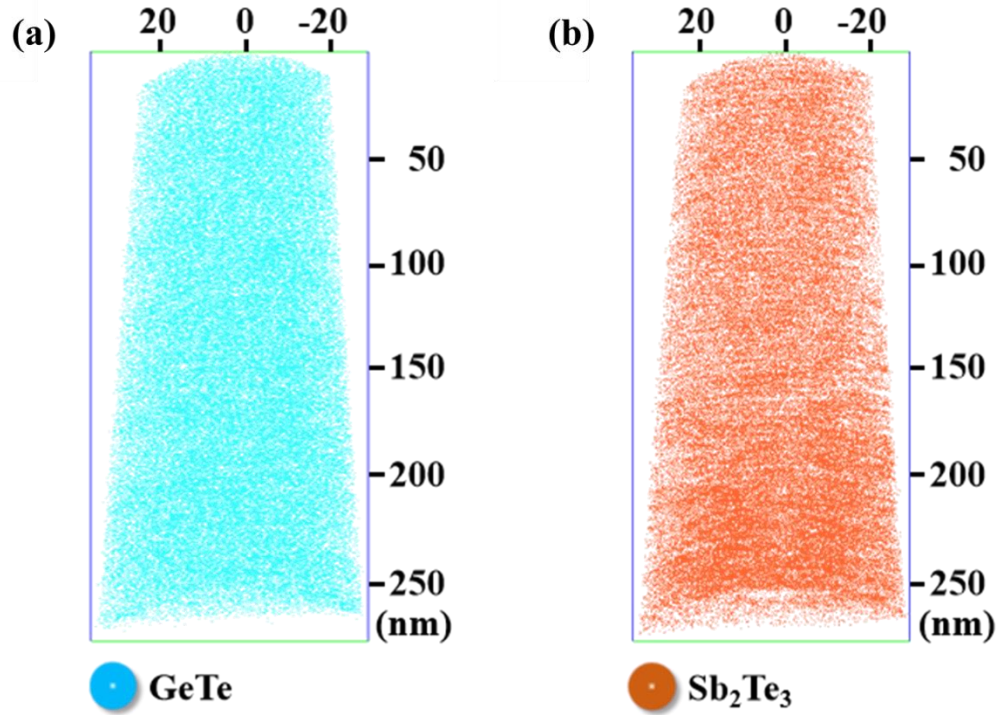


Fig. S5 Reconstructed three-dimensional mappings of GeTe and Sb₂Te₃ ions in GeTe/Sb₂Te₃ SL.

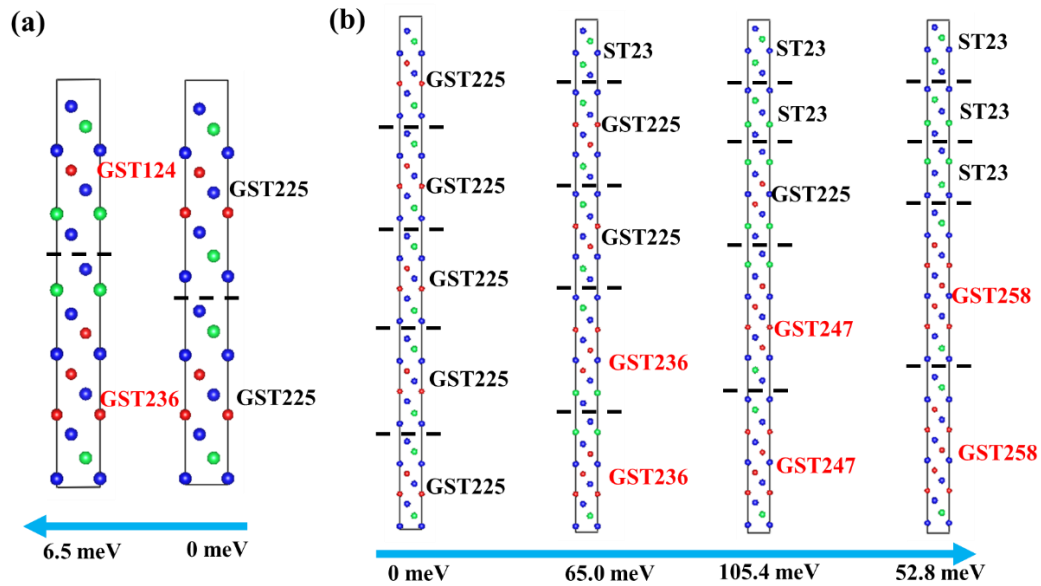


Fig. S6 The energy difference when the stoichiometric GST225 was constructed into 7 layers (GST124), 11 layers (GST236), 13 layers (GST247) and 15 layers (GST258) caused by the diffusion of cation atoms.