

Supplementary Materials

Effect of Nitrogen Doping on the Crystallization Kinetics of $\text{Ge}_2\text{Sb}_2\text{Te}_5$

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1. TEM EDX Analyses of the As-Deposited 500 nm Thick $\text{Ge}_2\text{Sb}_2\text{Te}_5$ Sample

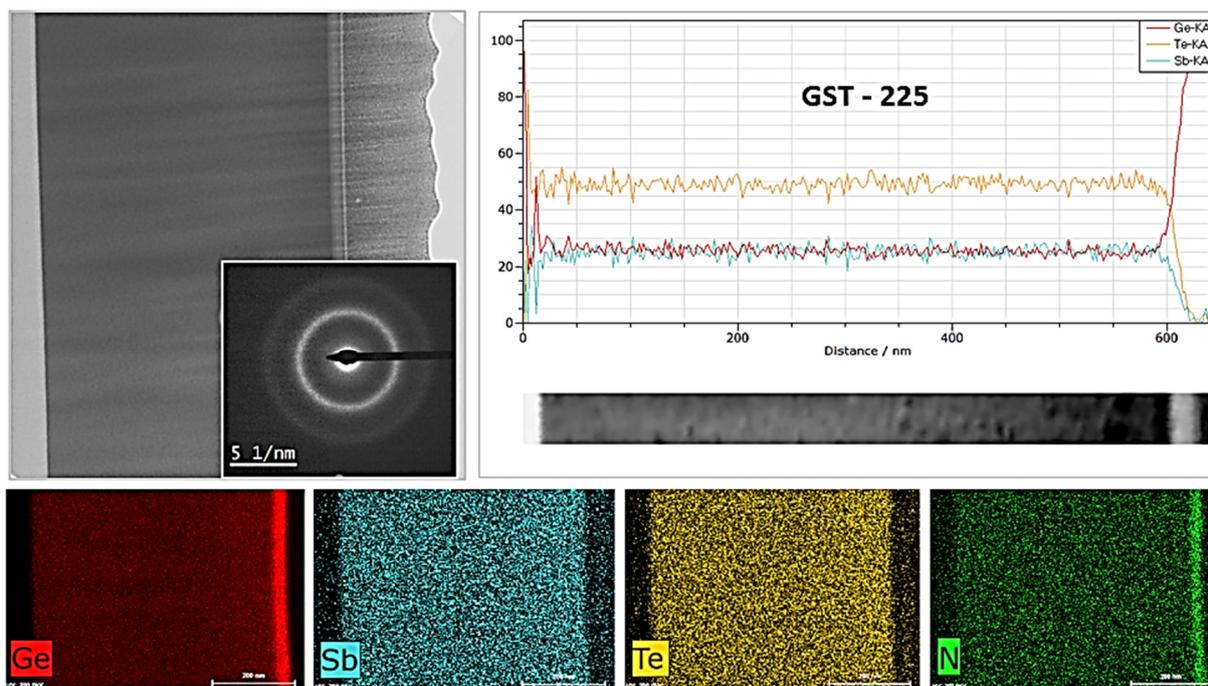


Figure S1. BF-TEM image of the as-deposited 500 nm thick $\text{Ge}_2\text{Sb}_2\text{Te}_5$ specimen and associated chemical mapping obtained by EDX. Ge, Sb, Te and N are displayed in red, blue, yellow and green, respectively.

2. TEM EDX Analyses of the N Implanted $\text{Ge}_2\text{Sb}_2\text{Te}_5$ Sample

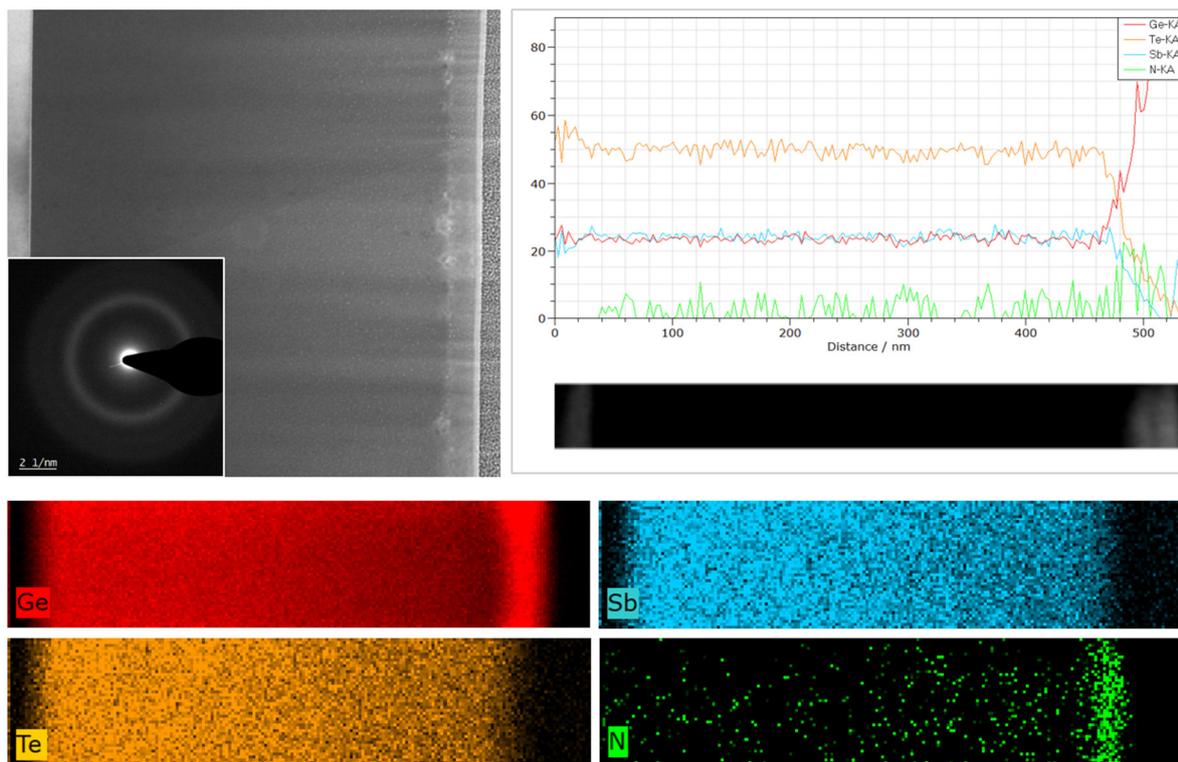


Figure S2. BF-TEM image of the N implanted $\text{Ge}_2\text{Sb}_2\text{Te}_5$ sample and associated chemical mapping obtained by EDX. Ge, Sb, Te and N are displayed in red, blue, yellow and green, respectively. Few voids are seen at the interface between GST and GeN. The EDX line-scan shows traces of N in the implanted region, close to the detection limit.

3. BF and DF TEM Images of the Samples Annealed “ex-situ” at Different Temperatures

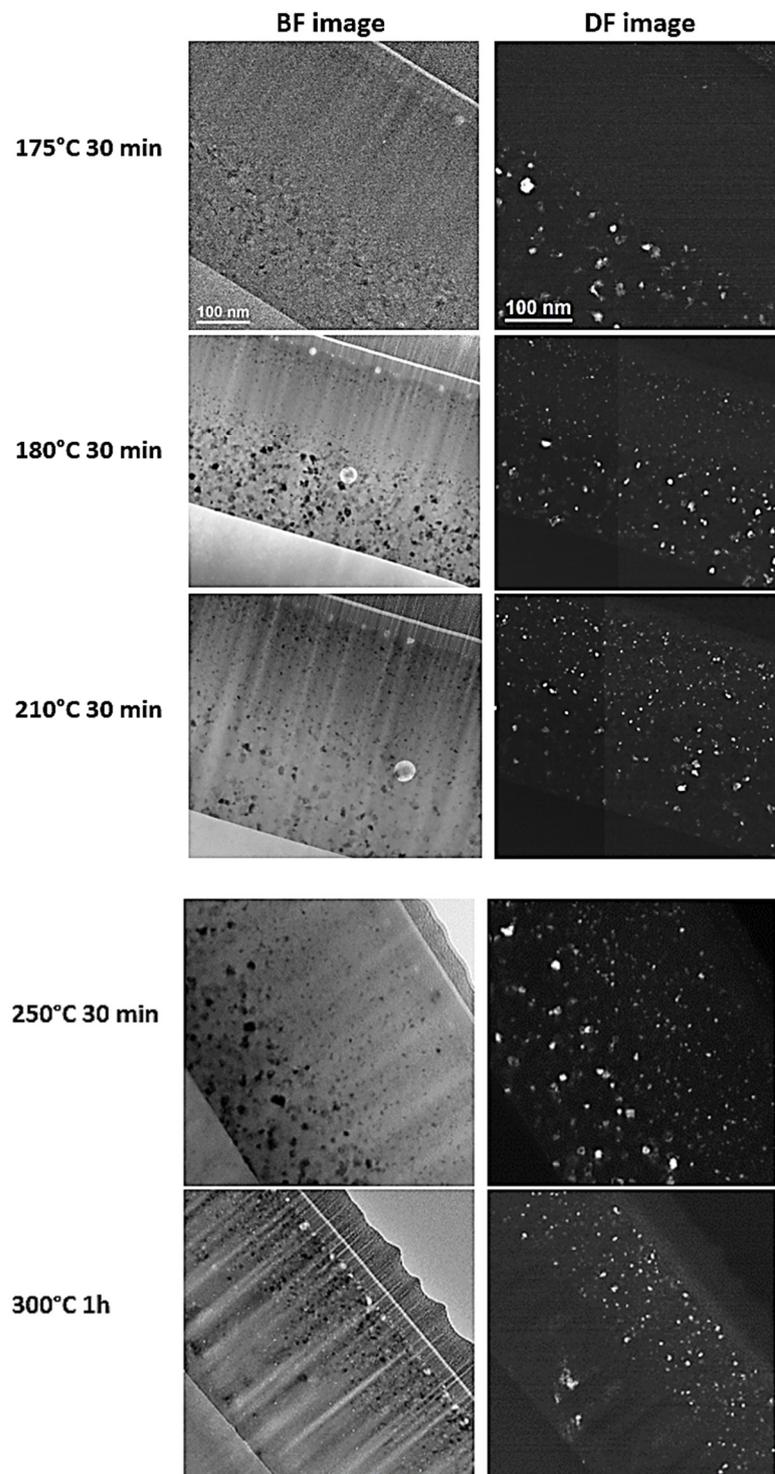


Figure S3. Set of BF/DF TEM images of N implanted $\text{Ge}_2\text{Sb}_2\text{Te}_5$, annealed at different temperatures and durations.