

Supporting Information

Two Solution Routes for the Syntheses of GeTe Nanocrystals

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1. STEM image and EDS spectrum along with elemental mapping

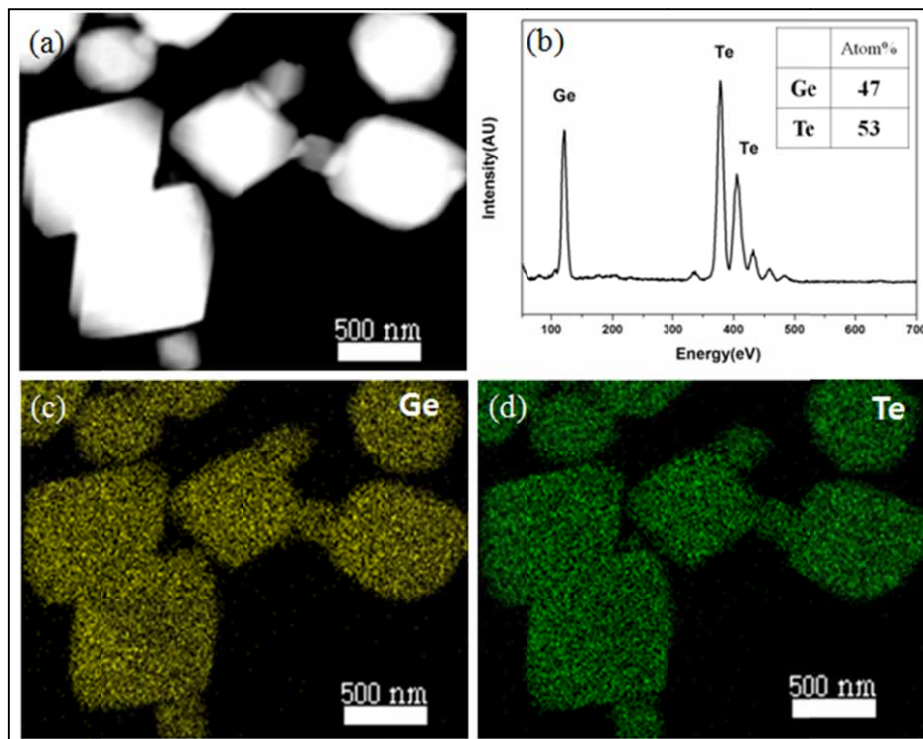


Figure S1. (a) STEM image of the GeTe microcrystals produced from reactions of Ge^{2+} and TOP-Te in OLA at 150°C and reaction time of 1h (sample **1**). (b) EDS spectrum, along with the associated EDS element mapping data showing uniform distribution of (c) Ge and (d) Te throughout each particle.

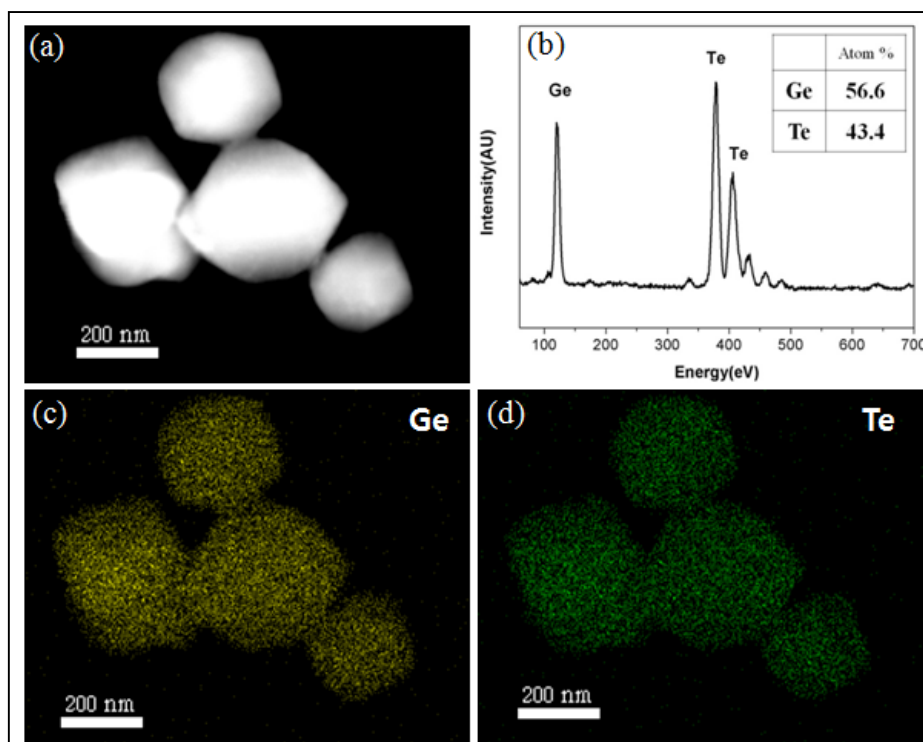


Figure S2. (a) STEM image of the GeTe microcrystals produced from reactions of Ge^{2+} and $(\text{Et}_3\text{Si})_2\text{Te}$ in TOPO at 250 °C and reaction time of 1h (sample 2). (b) EDS spectrum, along with the associated EDS element mapping data showing uniform distribution of (c) Ge and (d) Te throughout each particle.

2. XPS spectra of as-synthesized GeTe product.

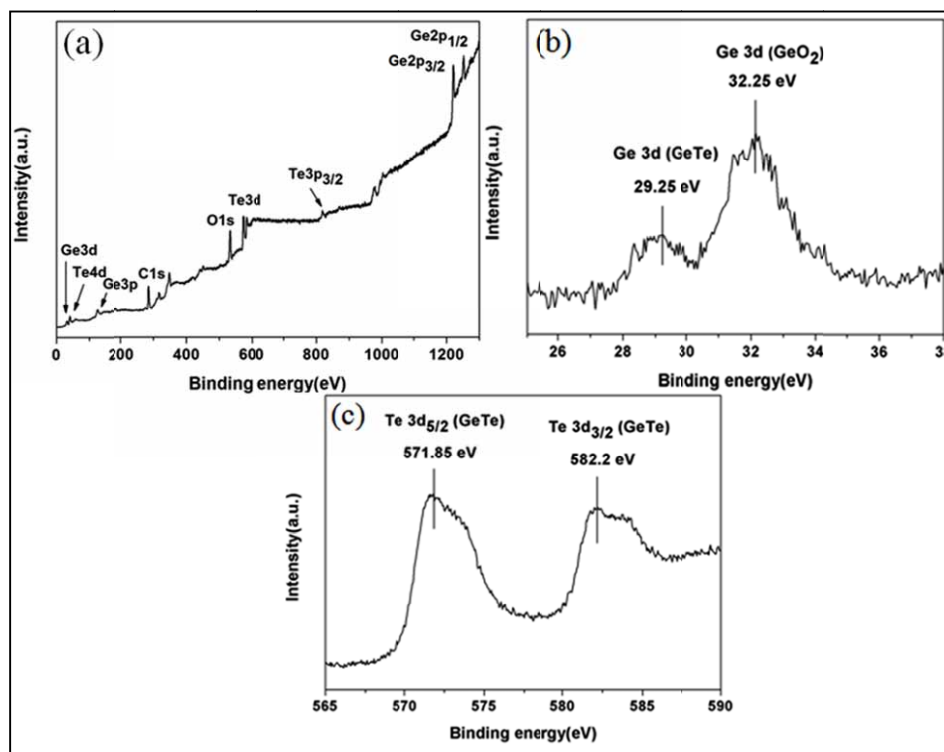


Figure S3. XPS spectra of the as-synthesized GeTe product (sample **1**): (a) XPS survey spectrum (b) Germanium region (c) Tellurium region.

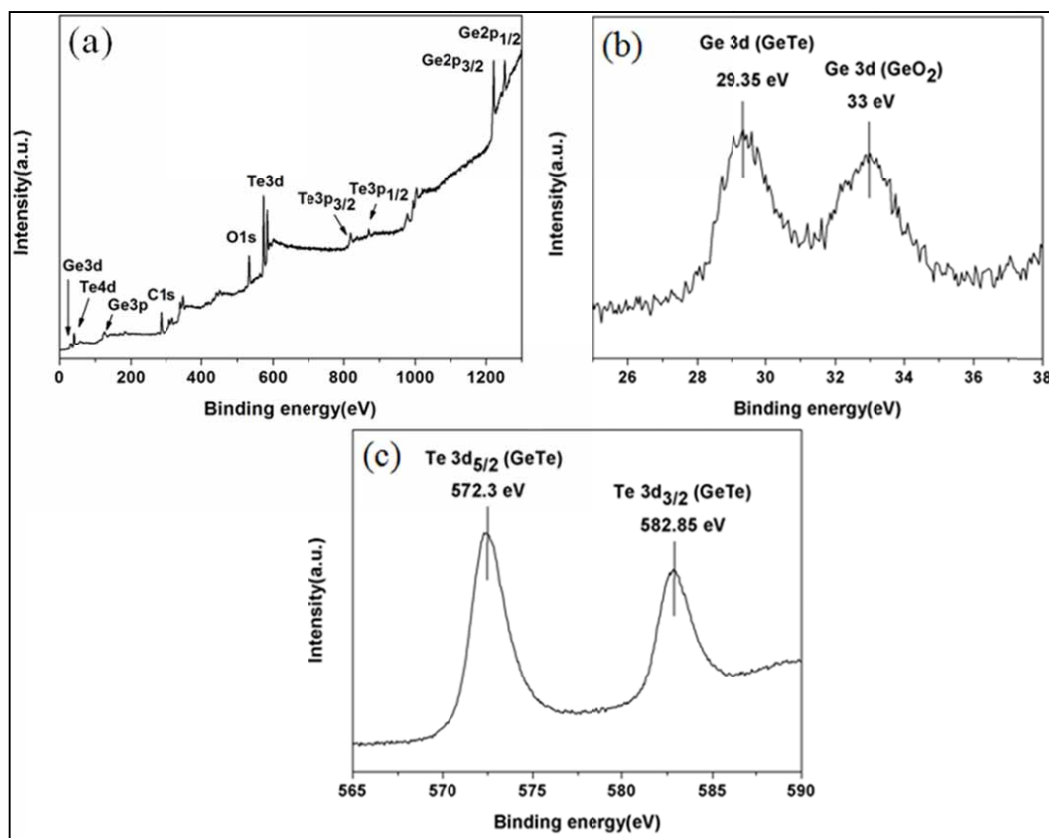


Figure S4. XPS spectra of the as-synthesized GeTe product (sample 2): (a) XPS survey spectrum (b) Germanium region (c) Tellurium region.