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Supporting information

Selective Synthesis and Magnetic Properties of Uniform CoTe and $CoTe_2$ Nanotubes

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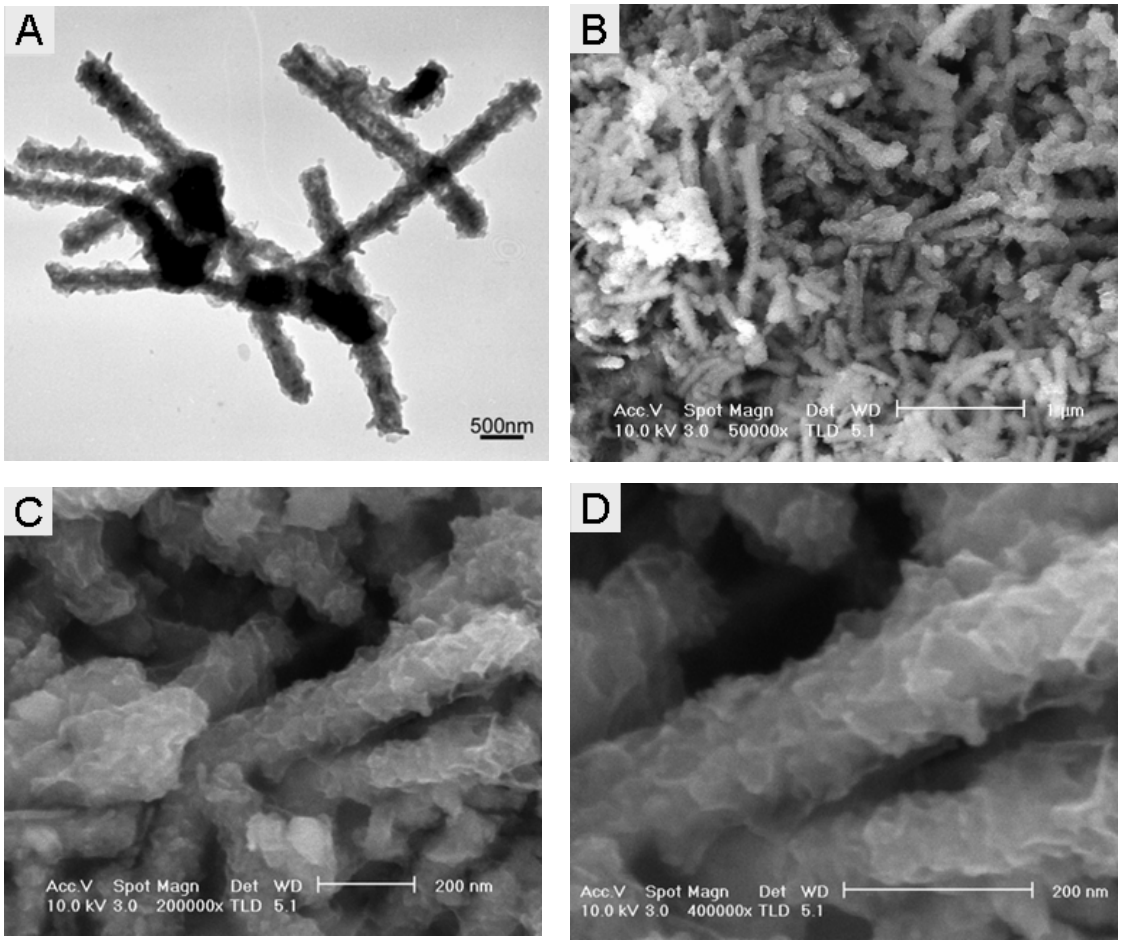

Figure S1. TEM image (A) of the CoTe nanotubes propared by using H_2TeO_3 as Te source and with the surfactant SDS (1 mmol) processed at 140 °C for 24 h. Low- and high- magnification SEM images (B-D) of the CoTe nanorods propared by using Na_2TeO_3 as Te source with the absence of surfactants at 140 °C for 24 h.

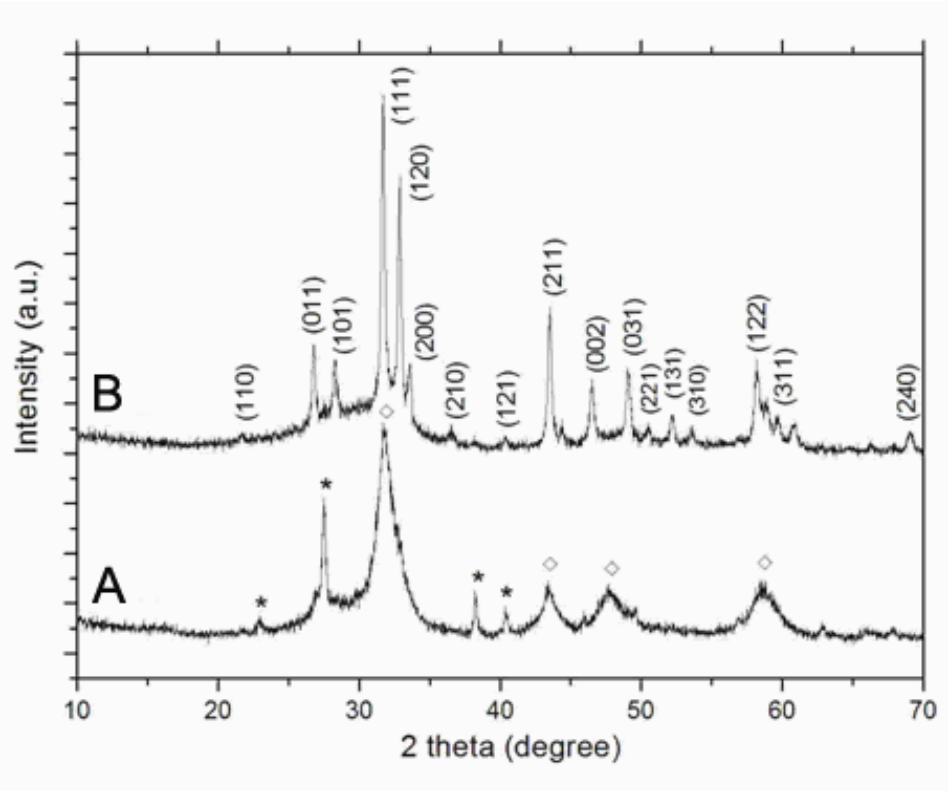

Figure S2. The evolution of the XRD patterns of the products obtained by using 0.001 mol $Co(NO_3)_2 \cdot 6H_2O$ and 0.002 mol H_2TeO_3 with the surfactant SDS (1 mmol) processed at 140 °C for 48 h: (A) without NaOH; (B) 10 mL 1.0 M NaOH.

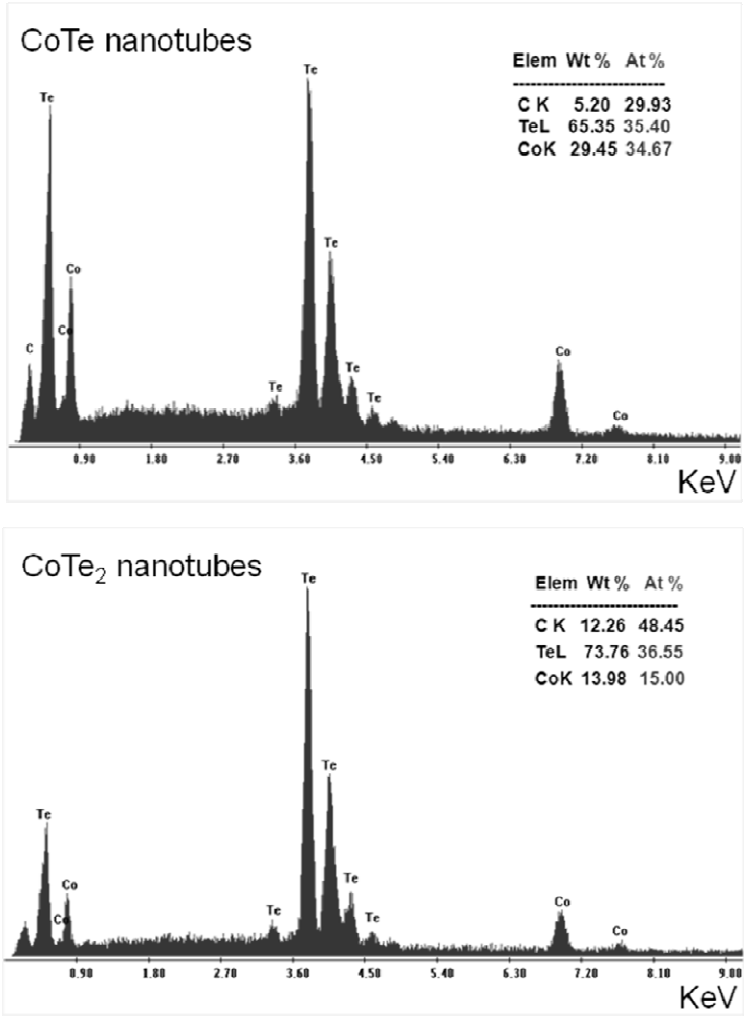

Figure S3. Energy dispersion spectroscopy (EDS) images of CoTe and $CoTe_2$ nanotubes. The characteristic peaks for both Co and Te are observed. The atomic ratios are calculated to be about 1:1 for CoTe and 1:2 for $CoTe_2$, which matched their stoichiometries quite well.