Electrochemically synthesized faceted $CuInTe_2$ nanorods as an electron source for field emission applications

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Supplementary Information

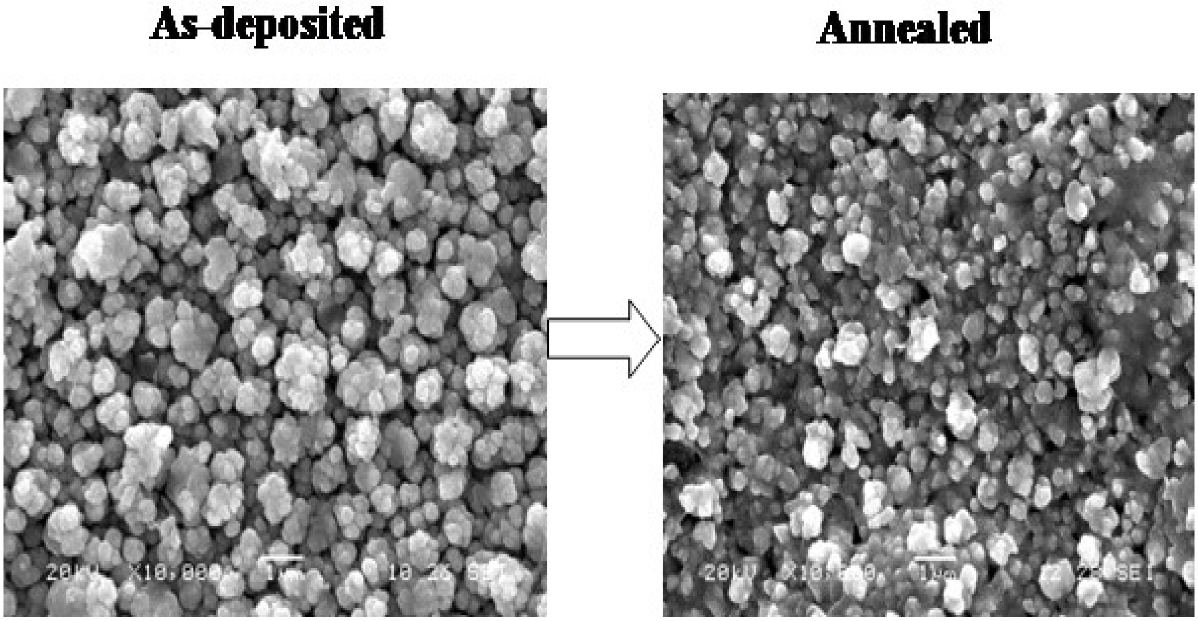

Figure S_1 SEM Images of as-deposited and $CuInTe_2$ sample deposited on molybdenum substrate at potential -0.6 V.

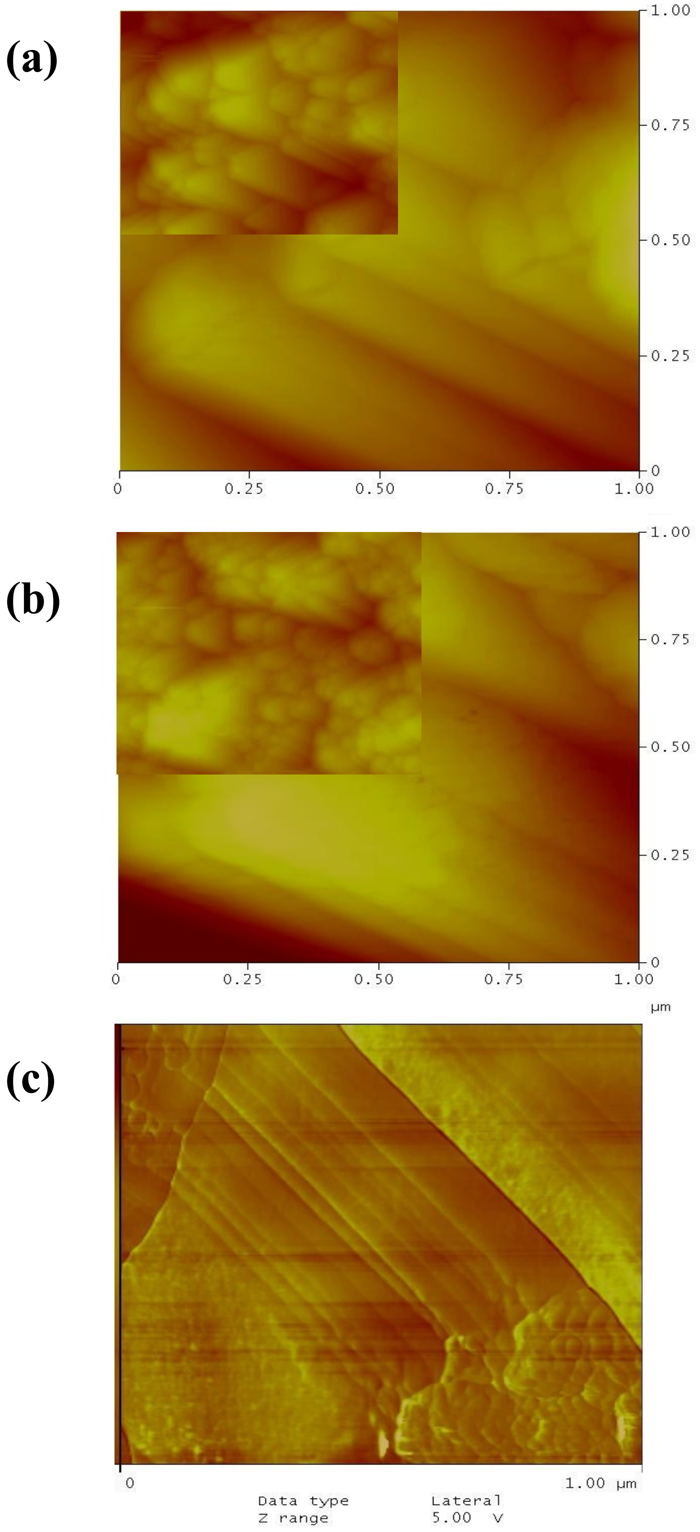

Figure S_2 AFM Images of $CuInTe_2$ thin films (a) as-deposited, (b) annealed in RTP furnace at 400 °C for 5 shots and (c) Grain boundary structure of annealed CIT sample deposited at -0.9 V. Inset shows the images taken at magnification 5 μm x 5 μm.

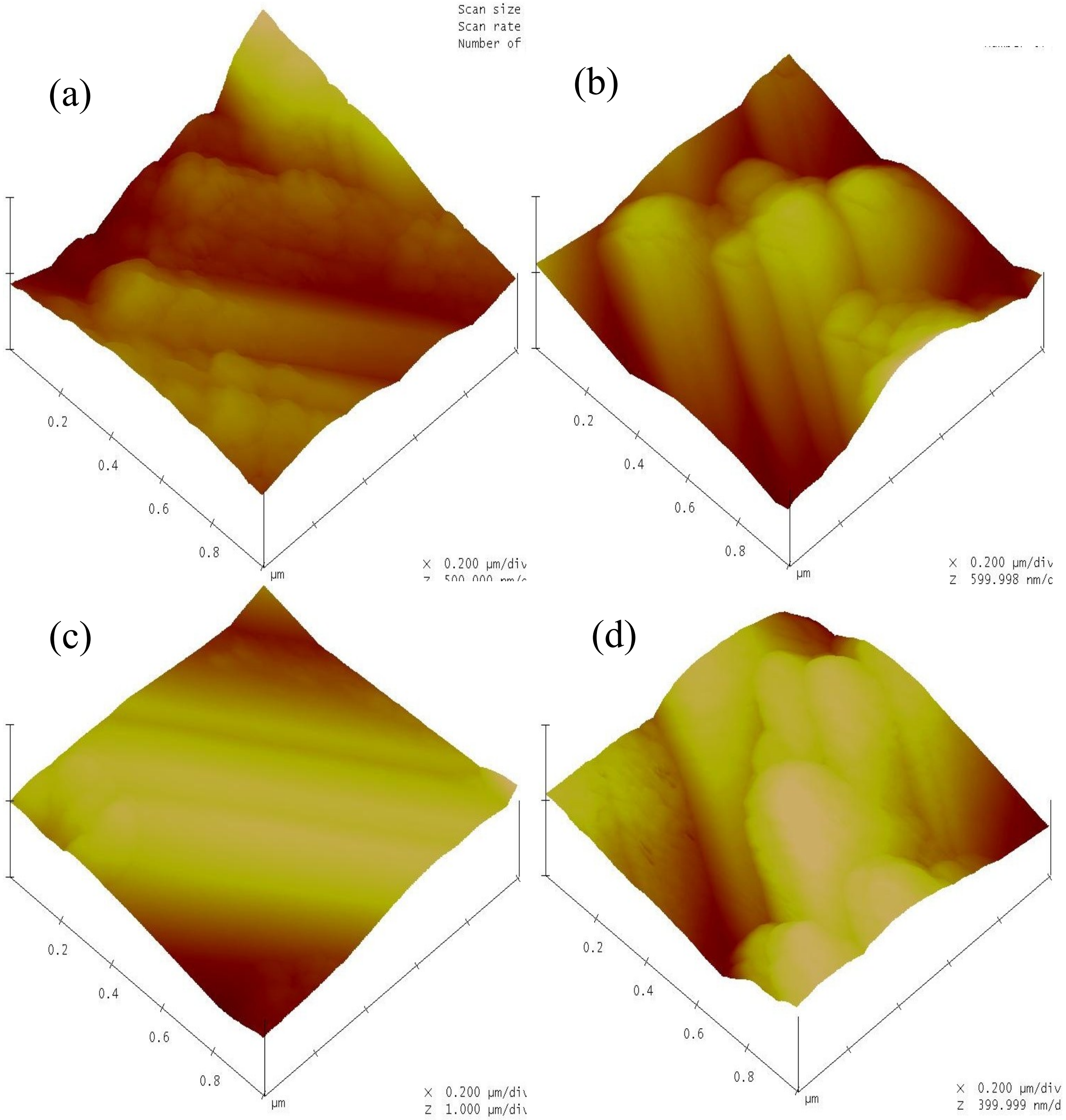

Figure S_3 Three dimensional AFM Images of $CuInTe_2$ samples (a) and (c) as-deposited, and deposited at -0.8 V and -0.9 V respectively and (b) and (d) its respective annealed samples in RTP furnace at 400 ^{o}C for 5 shots.

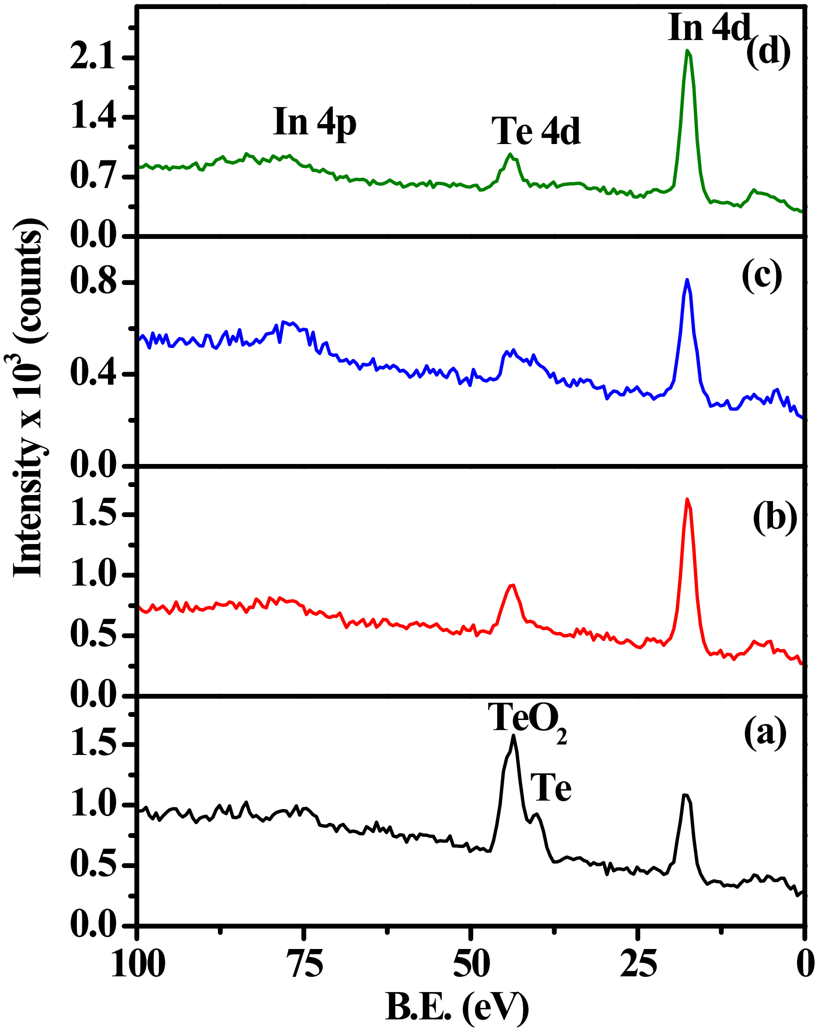

Figure S_4 Shows the binding energies of In 4d and Te 4d core levels.

As-deposited sample: -0.9 V

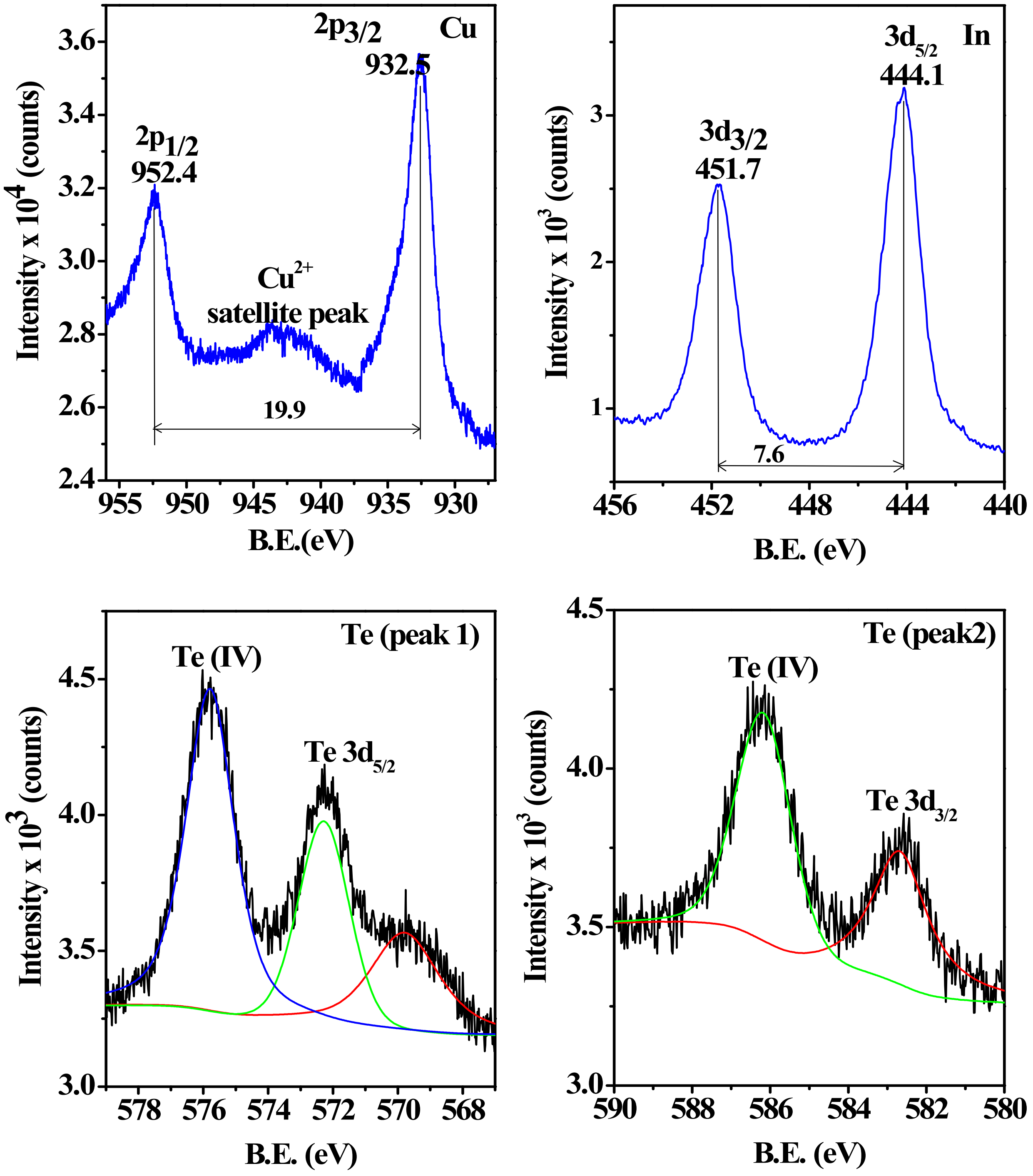

Figure S_5 Detail analysis of peak positions of copper, indium and tellurium lines obtained in XPS spectra for as-deposited CIT samples deposited at -0.9 V.

Annealed sample: -0.9 V

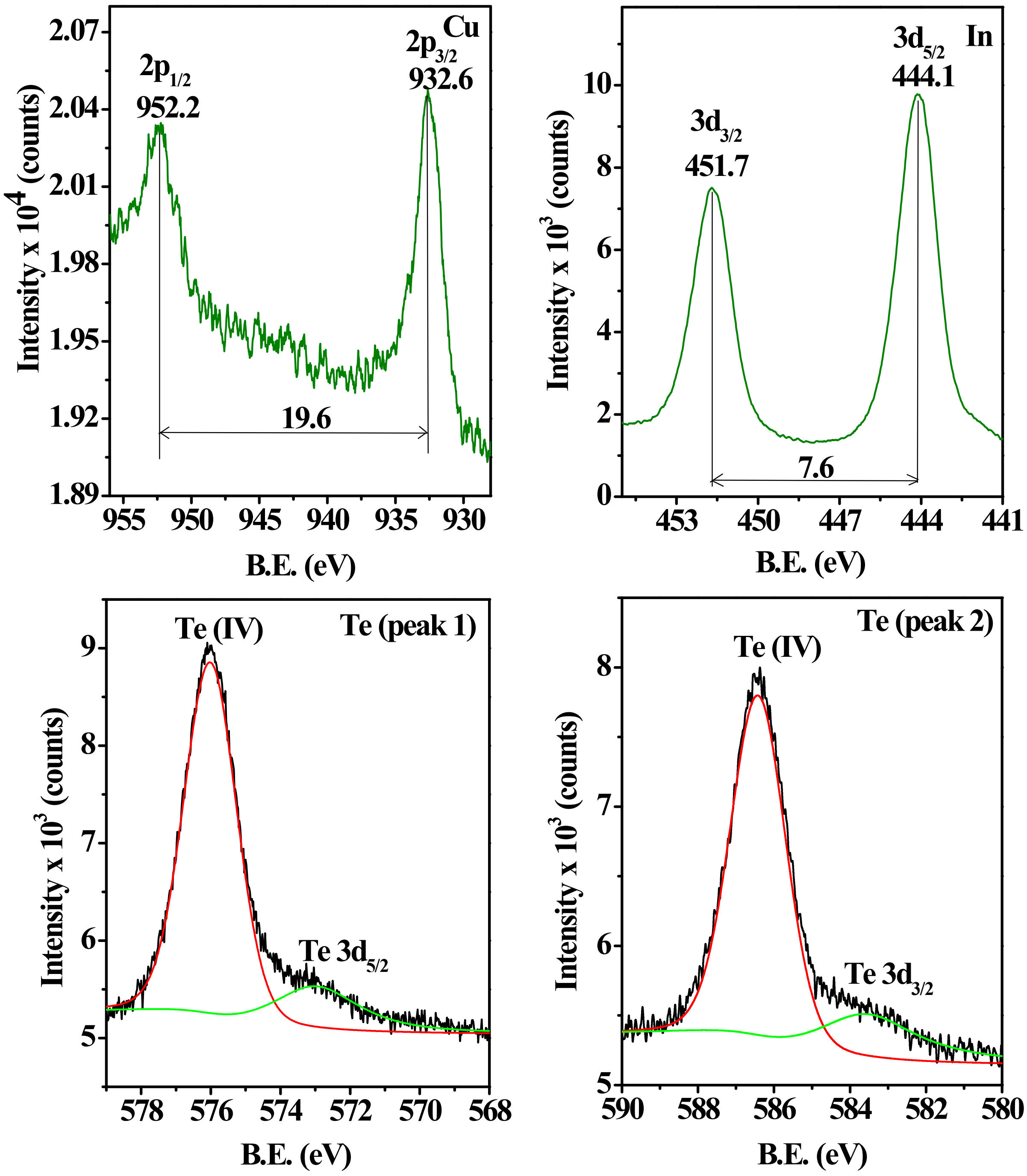

Figure S_6 Detail analysis of peak positions of copper, indium and tellurium lines obtained in XPS spectra for annealed CIT samples deposited at -0.9 V.