

Electronic supplementary information

A promising three-step heat treatment process for preparing CuO films for photocatalytic hydrogen evolution from water

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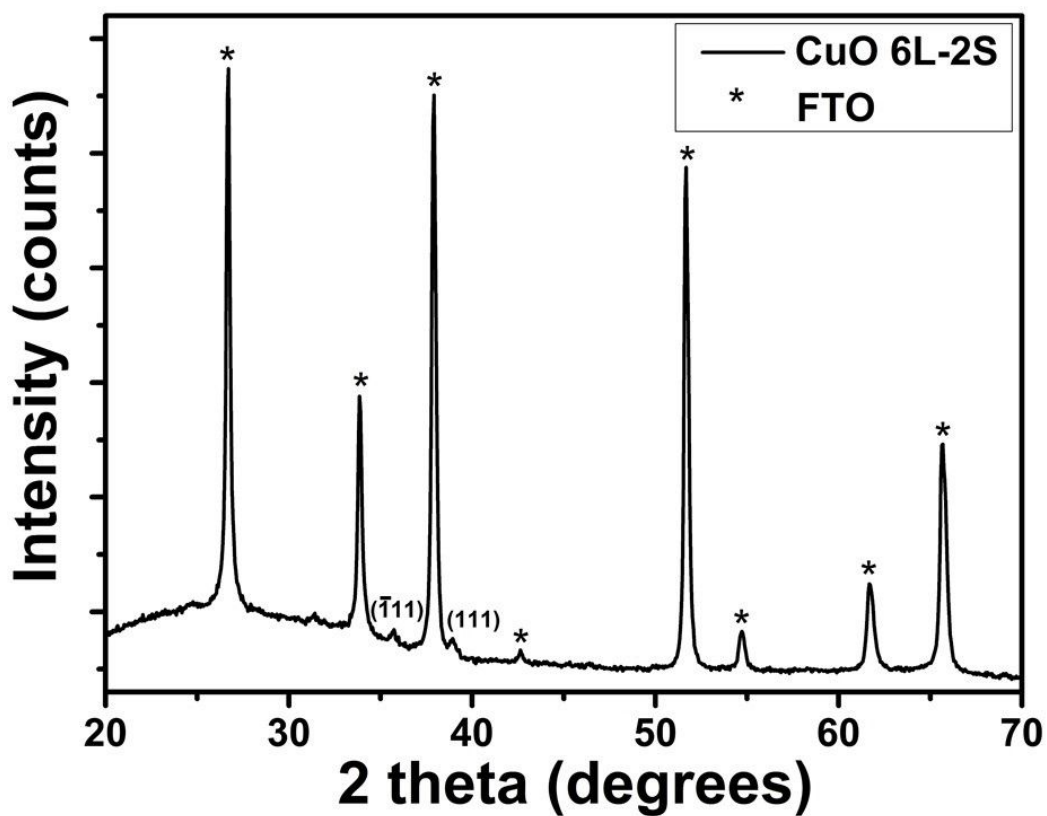


Figure S1. XRD plot of CuO 6L-2S sample prepared using the two-step heating approach for comparative purpose.

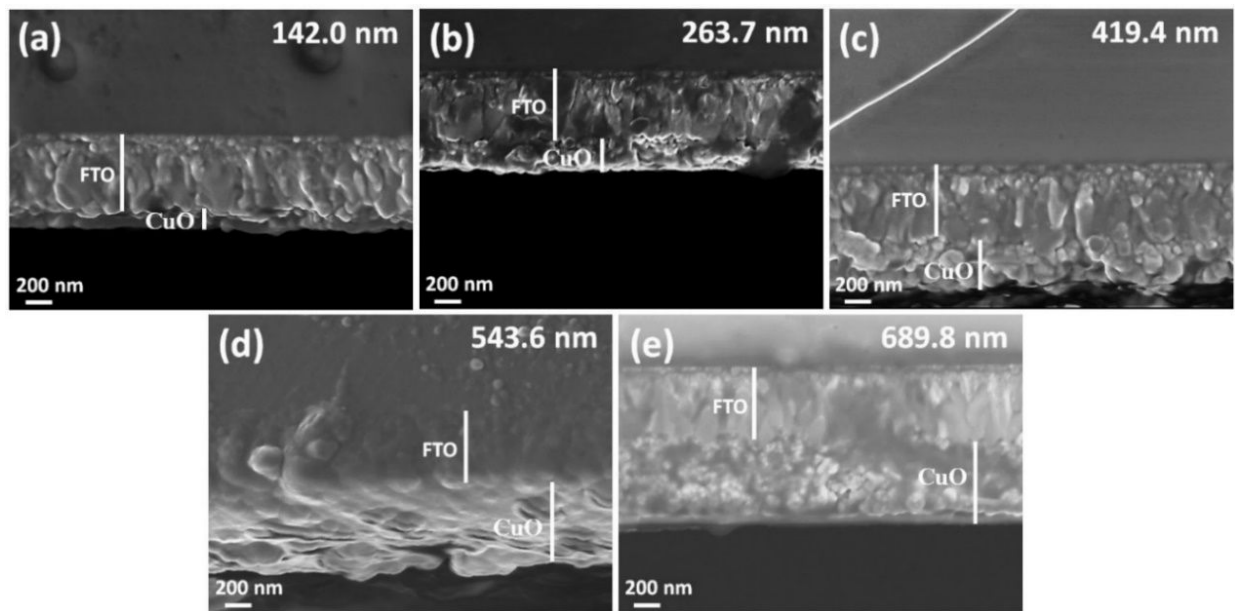


Figure S2. FEG-SEM cross-sectional views of CuO films consisting of (a) 2, (b) 4, (c) 6, (d) 8 and (e) 10 layers respectively.

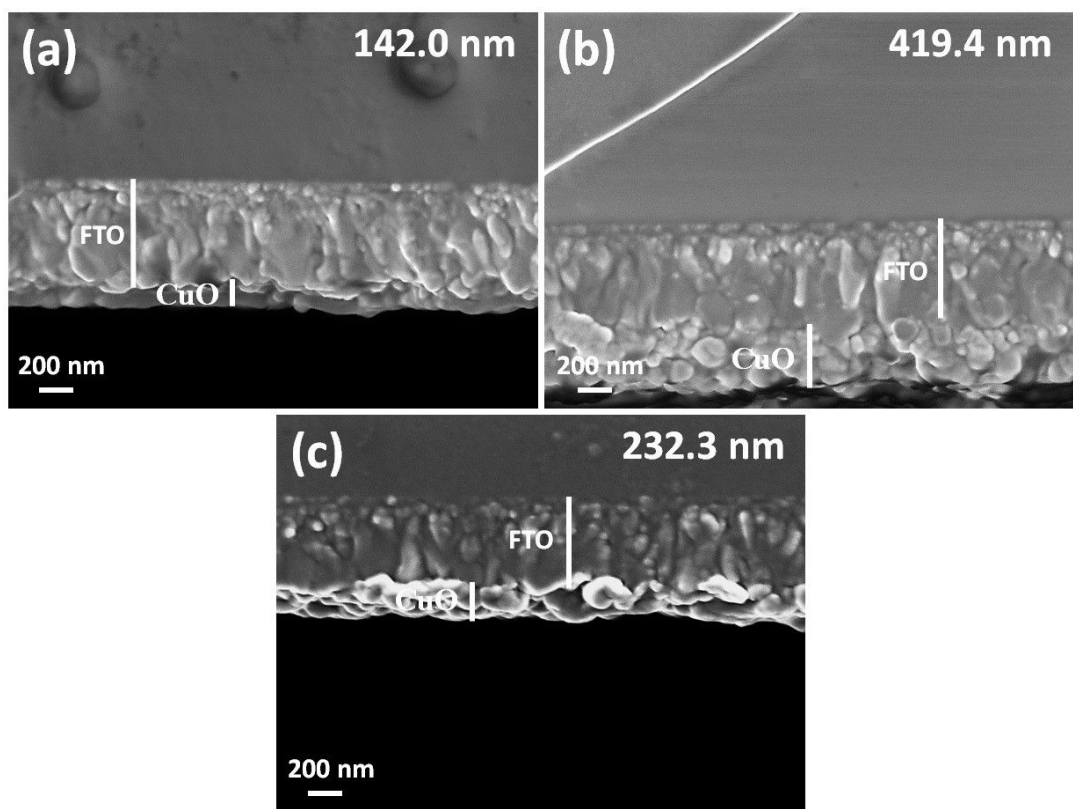


Figure S3. The SEM cross-sectional views of samples (a) CuO-2L, (b) CuO-6L, and (c) CuO-6L-2S respectively.

Table S1. The donor density (N_D) and flat band potential (V_{fb}) values of CuO films obtained from Mott-Schottky analysis.

Sample	V_{fb} vs RHE (V)	$N_D * 10^{20}$ (cm^{-3})
CuO-2L	1.154	2.8
CuO-4L	1.157	3.9
CuO-6L	1.152	5.8
CuO-8L	1.154	18.7
CuO-10L	1.144	11.6