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Supporting Information

Frequency-regulated Pulsed Electrodeposition of $CuInS_2$ on ZnO Nanorod Arrays as Visible Light Photoanodes

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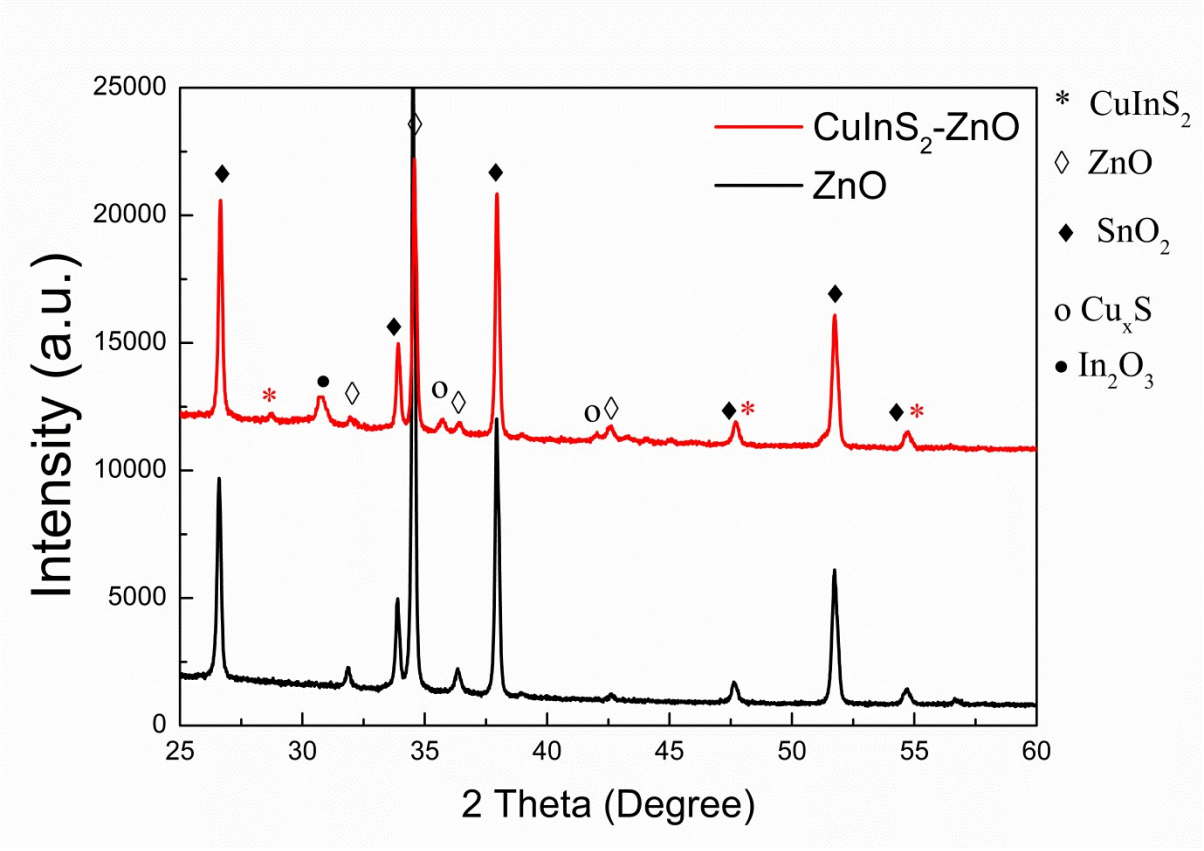

Figure S1. XRD patterns of the (a) ZnO and (b) $CuInS_2$-ZnO films from pulsed-electrodeposition (cathodic voltage: -1.25 V; relaxation voltage: 0 V).

XRD patterns confirm the formation of crystallized ZnO with dominant (002) plane on the FTO substrate in both ZnO and $CuInS_2$-ZnO films. In addition to all ZnO peaks, $CuInS_2$-ZnO film shows a peak with low intensity at 27.4 ° attributed to the (112) planes of $CuInS_2$. The peak intensity of $CuInS_2$ is low because of the small amount of deposit on the ZnO nanoarrays. Therefore, the characterization of $CuInS_2$ is further supported by HRTEM and UV-Vis Tauc plot analyses, as presented in the main article.