PEC CELLS BASED ON THIN FILM $CuInSe_2$

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The ternary compound $CuInSe_2$ has a chalcopyrite structure and had recently received considerable attention because of its potential use as a photovoltaic material. Polycrystalline thin films of $CuInSe_2$ were grown on titanium substrates by the electrochemical technique. The current-voltage characteristice of photoelectrochemical cells based on thin film $CuInSe_2$ are presented and compared with that of bulk polycrystalline $CuInSe_2$. It was not possible to deposit thin film of ternary compounds by simple vacumm evaporation from the synthesized bulk material. Mass Spectroscopic studies revealed the presence of elements and traces of the compound in such films.