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Ellipsometry study of Cu3Se2 thin films growth by electrodeposition

The study of the optoelectronic properties of films that compose a solar cell have significant impact in the optimization of the best configuration of a solar cell. Among these properties, the dielectric function of the materials is one of the most relevant. In this work, the study of the dielectric function <ε> of Cu3Se2 thin films growth over Glass/FTO by electrodeposition. The ellipsometric angles Ψ y Δ were measured and then a multilayered model composed by general oscillator general + Drude + Tauc-Lorentz. The energy band gap was calculated from UV-Vis measurements and used as fixed parameter in the ellipsometric model. The model allows to obtain the dielectric function of the films and to calculate the optical properties of the absorbent layer.

Keywords

Cu3Se2, ellipsometry, absorbent layer

Reference

no reference

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Author approval

I confirm

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