

## Accepted Manuscript

Title: Copper oxy-sulfide and copper sulfate thin films as transparent p-type conductive electrodes

Authors: C. Guillén, J. Herrero

PII: S0025-5408(17)32221-3  
DOI: <https://doi.org/10.1016/j.materresbull.2018.01.020>  
Reference: MRB 9791

To appear in: *MRB*

Received date: 5-6-2017  
Revised date: 27-12-2017  
Accepted date: 16-1-2018



Please cite this article as: Guillén C, Herrero J, Copper oxy-sulfide and copper sulfate thin films as transparent p-type conductive electrodes, *Materials Research Bulletin* (2018), <https://doi.org/10.1016/j.materresbull.2018.01.020>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

# Copper oxy-sulfide and copper sulfate thin films as transparent p-type conductive electrodes

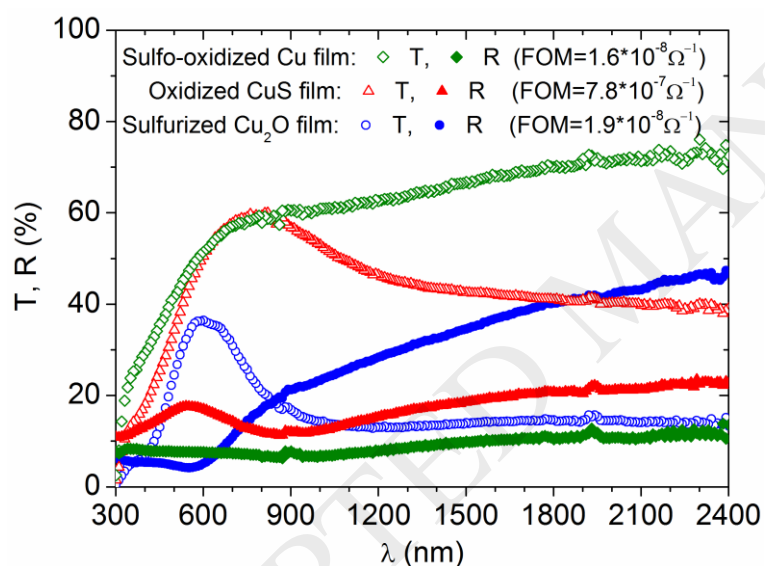
C. Guillén\* and J. Herrero

Departamento de Energía (CIEMAT)

Avda. Complutense 40, Madrid-28040 (Spain).

\*Corresp. author, phone: +34 91 346 6669, fax: +34 91 346 6037, email: c.guillen@ciemat.es

## Graphical Abstract



## Highlights

- $\text{Cu}_2\text{O}$ ,  $\text{CuS}$  and  $\text{CuSO}_4$  films are prepared and compared as p-type transparent electrodes.
- $\text{CuSO}_4$  gives the highest visible transmittance and  $\text{CuS}$  the lowest sheet resistance.
- $\text{Cu}_2\text{O}$  sulfurization produces  $\text{CuS}$  with a rougher surface and higher resistance.
- $\text{CuS}$  oxidation gives a  $\text{Cu}_2\text{S}$  and  $\text{Cu}_2\text{O}$  mixture with the best electrode performance.

Download English Version:

<https://daneshyari.com/en/article/7904789>

Download Persian Version:

<https://daneshyari.com/article/7904789>

[Daneshyari.com](https://daneshyari.com)