

## عنوان مقاله:

Influence of the thickness of window and absorber layers on the performance of CZTS nanostructured solar cells

## محل انتشار:

همایش ملی توسعه فناوری نانو (سال: 1396)

تعداد صفحات اصل مقاله: 8

## نویسندگان:

Ali Abdolazadeh Ziabari - Nano Research Lab, Lahijan Branch, Islamic Azad University, Lahijan, Iran

Nader Mohabbti Zidanlou - Nano Research Lab, Lahijan Branch, Islamic Azad University, Lahijan, Iran

## خلاصه مقاله:

The performance of a thin film solar cell is affected by several parameters related to the hetero structure that is taken into account. In this study, ZnS/ CZTS nontoxic thin film solar cell was studied. The hetero-junction was numerically simulated using the Solar Cell Capacitance Simulator (SCAPS). According to the simulation results, we found that ZnS buffer was suitable for the CZTS absorber and an efficiency around 14% was obtained. By optimizing the thickness of window and absorber layers, we obtained conversion efficiencies as high as 14.2% ZnS/CZTS based solar cells.

## کلمات کلیدی:

CZTS, Solar cells, Simulation, SCAPS

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/718970>

