# **Accepted Manuscript**

Study of photoelectrochemical conductivity mechanism and electrochemical impedance spectroscopy of bulk CuInTe<sub>2</sub> – electrolyte interface

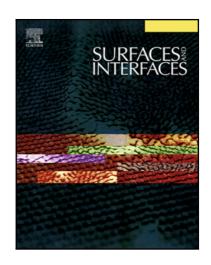
Manorama G. Lakhe, Ashwini B. Rohom, Priyanka U. Londhe, Ganesh R. Bhand, Nandu B. Chaure

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## ACCEPTED MANUSCRIPT

#### HIGHLIGHTS

- CuInTe<sub>2</sub> (CIT) thin films were electrosynthesized on fluorine doped tin oxide at higher pH 4.
- CIT films were studied by photoelectrochemical (PEC) response and confirm the p-type conductivity of CIT films.
- Charge transport mechanism was studied by electrochemical impedance spectroscopy.
- Impedance measurement shows tunnel diode like behavior at higher frequencies whereas diffusion mechanism of ionic species dominated at lower frequencies.
- The science behind photoelectrochemical and impedance measurement is explained in details.

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