

Abstract Submitted
for the MAR11 Meeting of
The American Physical Society

Transparent Conducting Metallic Film for Applications in Photovoltaics and Optoelectronic Devices TRILOCHAN PAUDEL, PIOTR PATOKA, WEN-CHEN CHEN, MICHAEL GIERSIG, WILLIE PADILLA, ZHIFENG REN, KRIS KEMPA — Oxides such as Indium-Tin Oxide (ITO) known as transparent conducting oxide (TCO) have been used for a long time in most of the thin film solar cell fabrications. It simultaneously works as an electrically conducting and optically transparent electrode. However, the electrical conductivity and optical transparency are not good enough. Here, we discuss our experimental and simulated results on nanostructured metallic films as a possible alternative replacement to TCO. This structure may possibly outperform the conventional ITO for applications in photovoltaics and optoelectronic devices such as LEDs.

Trilochan Paudel

Date submitted: 22 Nov 2010

Electronic form version 1.4