Efficiency performance effect of TiO2 thickness deposited on FTO coated glass photoanode

ABSTRACT

This paper presents the fabrication and thickness analysis of TiO2 on Fluorine-doped Tin Oxide (FTO) glass for Dye-Sensitized Solar Cell (DSSC). The TiO2 layer was deposited on the cleaned FTO glass using doctor blade technique and the thickness of the TiO2 were controlled by with different layers of adhesive tape. This results showed that the two-layer with thickness 15.09 μm of adhesive tape achieved the highest efficiency of 4.73 %, and followed by three-layer and one-layer at 3.64% at 2.32 % respectively.

Keyword: FTO; Dye-sensitized solar cell; TiO2; Thickness; Photoanode