A compilation of nanotechnology in thin film solar cell devices

ABSTRACT

Nanotechnology has become the world attention in various applications including the solar cells devices due to the uniqueness and benefits of achieving low cost and better performances of devices. Recently, thin film solar cells such as Cadmium Telluride (CdTe), Copper-Indium-Gallium-diSelenide (CIGS), Copper-Zinc-Tin-Sulphide (CZTS), and Dye-Sensitized Solar Cells (DSSC) enhanced by nanotechnology have attracted much attention. Thus, a compilation of nanotechnology devices giving the progress in the solar cells has been presented. It is much related to nanoparticles or nanocrystallines, carbon nanotubes, and nanowires or nanorods structures.

Keyword: Nanotechnology; Nanocrystalline; Nanowires; Carbon nanotubes; Nanorods; Thin film solar cells