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# Fabrication of dye sensitized solar cell using produced platinum doped multiwall carbon nanotube as counter electrode.

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Carbon nanotubes (CNTs) were synthesized by catalytic chemical vapor deposition (CCVD) method. The synthesized CNTs was purified with acid to remove the catalyst impurities and to enhanced deposition platinum (Pt) onto the CNTs surface. Platinum multiwall (Pt-MWCNTs) nanocomposites were produced by a wet impregnation technique and a known amount (0.5 g) nanocomposites was dispersed in Texanol and Acrylic resins to form a paste. The paste was screen printed on an FTO glass substrate. Surface morphology, chemical composition, crystallographic structure electrical performance of the obtained Pt-MWCNTs nanocomposites were confirmed by HRSEM, HRTEM, EDS, XRD. The produced MWCNTs and Pt-MWCNTs were used as counter electrode to fabricate the dye sensitized solar cell. The Pt-MWCNTs solar cell was found to $\eta$=0.28%.

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