

Annealing heat treatment of Poly(triarylamine) (PTAA) thin films deposited using spin coating

ABSTRACT

Poly(triarylamine) is one of the semiconducting layers and has huge advantages, for example, can dissolve in solvent and stable in ambient condition. In this work, Poly(triarylamine) thin films deposited at different annealing temperature on the glass substrate in order to investigate the dependence of annealing temperature on the optical and structural of the films. The UV-Vis results show that there is a modification in the absorption spectrum of PTAA thin films as the annealed layers where there is an increase in the absorptive with the increase in annealing temperature and the estimated band gap within 3.05-3.14 eV. All PTAA films share the same pattern of XRD with a broad diffraction peak at 22.33-22.85° and result in the better crystallite at 100 °C. The value of the films thickness measured by the profilometer is consistent.