Abstract Submitted
for the DPP13 Meeting of
The American Physical Society

Effects of RF Plasma Polymerization Parameters on Polymeric Thin Film Characteristics MELEK KIRISTI, ERDOGAN TEKE, FERHAT BOZDUMAN, ALI GULEC, AYSEGUL UYGUN OKSUZ, LUTFI OKSUZ, Suleyman Demirel University — Synthetic monomer derivatives such as aniline, chloroaniline and ethylene aniline were polymerized onto indium tin oxide (ITO)/glass substrate by radio frequency (RF) vacuum plasma at constant duration and pressure. It was applied variety power during polymerization process and compared with each other regarding electrical and morphological properties. Optical emission spectroscopy (OES) measurement was used for determining plasma species. The thin films were characterized by scanning electron microscopy (SEM) and Energy-dispersive X-ray spectroscopy (EDS). The electrochemical properties of thin films were investigated by cyclic voltammetry (CV). It was shown that applied power significantly affected thin film morphology and stability.

Lutfi Oksuz
Suleyman Demirel University

Date submitted: 11 Sep 2013 Electronic form version 1.4