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# ELABORATION AND CHARACTERIZATION OF PBT/Si AND PBT/ITO COMPOSITE FILMS

**Leila LAMIRI, B. Nessark**

**Abstract :** This work reports on the photoelectrochemical and optical properties of polybithiophene (PBT) films electrochemically synthesized onto indium-tin oxide (ITO) and silicon substrates of different concentrations. The properties of the composite layers were studied by electrochemical method (cyclic voltammetry), scanning electron microscopy (SEM) energy dispersive X-ray spectroscopy, UV-visible and photoelectrochemical measurements. The photocurrent measurement showed good photoelectrochemical properties of this composite making it an ideal candidate for photovoltaic cell application.

**Keywords :** Composite material. Photocurrent, polybithiophene, Silicon