THE PHYSICOCHEMICAL PROPERTIES OF POLY(PYRROLE-co-2 AMINO-4-METHYL PYRIDINE)

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Electrochemically synthesized conducting polymers (CP) have been widely studied in recent years due to a great variety of potential applications in several fields, such as electrocatalysis [1], sensors [2] and anti-corrosion coatings [3,4]. In this study, the original copolymer film of pyrrole and 2 amino 4 methyl pyridine has been electrochemically synthesized in aqueous oxalic acid containing 1:1 monomer feed ratio. The characterization of polymer was realized with help of Fourier transform infrared spectroscopy (FT-IR) and ultraviolet-visible spectroscopy (UV-vis) techniques. The physicochemical properties, (such as AS, ΔH) were calculated and the stability of copolymer film as a coating material has also been investigated in 3.5% NaCl solution. Results show that, this original, highly stable and conductive copolymer film can find wide application area for various purposes (anti corrosive, electrocatalytic, etc.).

![Graph A](image1)

**Figure 1.** The voltammograms recorded for Pt electrode in 0.4M oxalic acid + 0.1 M (pyrrole : 2-amino-4-methyl pyridine; 1:1) at different temperature (a) and scan rate (b).

References