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**Synthesis of conductive polymeric ionic liquid/Ni nanocomposite
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of tramadol**

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ABSTRACT

In the current study, poly(MImEO₈BS)-Ni nanocomposite was synthesized and applied to modify a glassy carbon electrode along with conductive polymeric ionic liquids. The electrochemical investigation of the modified electrode as well as its efficiency for voltammetric oxidation of warfarin is elucidated. The electrode was used to study the voltammetric oxidation of warfarin by employing cyclic voltammetry (CV), linear sweep voltammetry (LSV), chronoamperometry, and square wave voltammetry (SWV) as diagnostic techniques. It has been observed that warfarin oxidation at the surface of modified electrode occurs at a potential of about 230 mV which is less positive than that of an unmodified glassy carbon electrode. SWV demonstrated a linear dynamic range from 1.0×10^{-6} to 1.0×10^{-4} M and a detection limit of 1.5×10^{-7} M for warfarin. In addition, this modified electrode was utilized for simultaneous determination of warfarin and tramadol. Finally, the modified electrode was employed for determination of warfarin and tramadol in pharmaceutical compounds.

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