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Sodium Thiosulphate, a Novel Electrocatalyst in the Electro-synthesis of Electronically Conducting Polymer-Polythiophene.

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Abstract:*In this paper we report on the electrosynthesis of polythiophene from aqueous media with sulphuric acid as the supporting electrolyte. The redox features of polythiophene on a bare carbon graphite working electrode and on a clay montmorillonite host matrix is also reported. Co-polymerisation of polythiophene and polyaniline from an electrolyte media containing both aniline and thiophene monomers reveal that, the redox centres of the two polymers are independent, hence suggesting the formation of a bilayer, even though no charge rectification is observed.The role of sodium thiosulphate as a novel electrocatalyst which has led to a tremendous improvement in the polythiophene faradaic /redox process is also reported.*
Key Words:*Polythiophene, electronically conducting, clay montmorillonite (bentonite), electrocatalyst.*