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Voltammetric and Polarographic Studies of Eriochrome Black T - Nickel(II) Complex

of

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**Abstract:** The electrochemical behaviour of complexes of Eriochrome Black T (EBT) with Ni(II) was studied. It was observed that EBT forms 1:1 and 1:2 complexes with Ni(II) in 0.1 M phosphate buffer at pH 6.0 by using Square-wave voltammetry (SWV), Cyclic voltammetry (CV), Direct Current Polarography (Sampled DCP) and Controlled Potential Coulometry (CPC). It was found that the reduction processes of Ni(II)-EBT complexes are irreversible. The stability constants of the Ni(II)-EBT complexes were evaluated with the DeFord-Hume procedure at different ligand concentrations using SWV. The logarithm values of stability constants of 1:1 and 1:2 Ni(II)-EBT complexes are 8.17 and 11.17, respectively.

**Key Words:** Eriochrome Black T-Ni(II) complex, voltammetry and polarography.

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