



**EXTRACTION AND SPECTROPHOTOMETRIC STUDY OF  
RUTHENIUM (III)**



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**ABSTRACT**

*Investigation was made on the extraction and spectrophotometric determination of Ruthenium(III) with 4-(4-dimethylaminobenzylideneimino)-5-methyl-4H-1, 2, 4-triazole-3-thiol (DMABIMTT) in chloroform from hydrochloric acid medium.. In this method Ruthenium(III) is extracted by using solvent extraction technique with DMABIMTT as an extractant which is stripped and determined spectrophotometrically. The method affords quantitative binary separation of Ruthenium(III) and is applicable to the analysis of synthetic mixtures and alloys. The method is highly selective, simple and reproducible. The effect of diverse ions on the quantitative extraction of Ruthenium(III) has also been studied. The method is applicable for the separation of Ruthenium(III) from binary mixtures, alloys, synthetic mixtures and commercially available samples.*

**KEYWORDS**

*Ruthenium(III), Solvent extraction, DMABIMTT, Binary mixtures.*