



**Liquid-Liquid Extraction and Separation of Osmium(VIII) with 4-(4-Methoxybenzylideneimino)-5-methyl-4H-1,2,4-triazole-3-thiol in Organic Acid Medium**

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Accepted on 14<sup>th</sup> July, 2021

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**ABSTRACT**

*A novel method is proposed for the extraction of microgram level concentration of osmium (VIII) from malonate medium with 4-(4-Methoxybenzylideneimino)-5-methyl-4H-1,2,4-triazole-3-thiol (MBIMTT) dissolved in chloroform as an extractant. The osmium (VIII) from the organic phase is stripped with mixture of thiourea and 2M hydrochloric acid and determined by spectrophotometric method. The method affords the binary separation and determination of osmium (VIII) from synthetic mixture. The method is successfully applied for the separation and determination of osmium from the alloys. The method is highly selective, simple and reproducible. The corrosive acids are not used in extraction of Os(VIII) in this method due to this it has green approach.*

**Keywords:** Osmium (VIII), Solvent extraction, Alloys.

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