

**CLOUD POINT EXTRACTION METHOD FOR SEPARATION AND PRE
CONCENTRATION OF MG (II) AS ANION COUPLED
WITH SPECTROPHOTOMETRIC APPLICATIONS**

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ABSTRACT

Cloud point extraction methodology used as qualified procedure for separation Magnesium (II) as anion after combination with Oxine as well as for spectrophotometric determination. The method involved the formation of an ion pair association complex between Rhodamin-B⁺ and Oxine anion complex of magnesium [Mg(OX)₃⁻] in basic media, and this complex extracted to surfactant Triton X-100 at optimum conditions. The cloud point layer which contains the ion pair complex extracted mediated with ethanol solvent and spectrophotometrically measured at $\lambda_{\max}=648\text{nm}$, also by adoption of the Eriochrom Black-T method for spectrophotometric determination, the remaining Mg²⁺ in aqueous phase after extraction and calculate distribution ratio D. This study demonstrates all optimum conditions for high efficiency of extraction as well as illustrates all factors affecting extraction, in addition to the applicability of this method.

KEYWORDS: Cloud Point Extraction, Preconcentration, Magnesium