

SENSITIVE SEPARATION, PRECONCENTRATION MOLYBDENUM (VI) VIA CLOUD POINT EXTRACTION METHODOLOGY

SHAWKET K. JAWAD & MUSTAFA N. MEHAMED SALIH

¹²Chemistry Department, College of Education, Iraq

ABSTRACT

This paper is focussing more on the Cloud Point Extraction Methodology. In the lab, we extracted molybdenum (VI) as molybdate MoO_4^{2-} from aqueous solution, according to cloud point extraction methodology by using complexing agent 2-[Benzene thiozoly] azo] -4- Benzene naphthol (BTABN) from Acidic Media 0.1 M HCl in presence 0.8 ml for 1% Triton X-100 and 1×10^{-4} M BTABN, the cloud point layer formation at 85°C and 25 minutes the ion pair complex extracted was $[\text{H-BTABN}]^+; \text{HMoO}_4$ or $[\text{2H-BTABN}]^{+2}; \text{MoO}_4^{2-}$ as well as for determination the Mo(VI) in different samples spectrophotometrically, by prepared calibration curve at optimum conditions, with $D. L = 2.62104 \times 10^{-6}$ and the ion pair complex extracted has $\lambda_{\text{max}} = 473$ and $\epsilon = 411227.6 \text{ L mole}^{-1} \text{ cm}^{-1}$ R. S.d = 0.0168, Sandell's sensitivity = $0.000233301 \mu\text{g cm}^{-2}$.

KEYWORDS: Pair, Media, Calibration, Optimum