

DETERMINATION OF NICKEL (II) BY USING ANEW SYNTHESIZED LIGAND VIA CLOUD POINT EXTRACTION METHODOLOGY

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ABSTRACT

Sensitive cloud point extraction methodology used for extraction Nickel(II) as complex with new laboratory synthesized complexing agent 4-[antybyrenzolyazo]-1,2-dihydroxy-9,10-anthracene dione (AADAD) optimum conditions study show $pH_{ex}=9$ by use $1 \times 10^{-4}M$ (AADAD)and 0.5ml of 1% TritonX-100 and heating at $80^{\circ}C$ for 15 min. as well as this research involved stoichiometry and thermodynamic study and other parameters effect on extraction efficiency as well applications about determination Ni^{2+} spectrophotometrically, with detection limit(D.L) $= (1.6 \times 10^{-5} \mu g.mL^{-1})$ and Sandell's sensitivity $(1.124 \times 10^{-8} \mu g.cm^{-2})$ and $\epsilon = (5221 L.mol^{-1}.cm^{-1})$ and $RSD\% = (0.00628)$.

KEYWORDS: Nickel (II), Cloud Point Layer, Tritonx-100