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# THE STUDY OF COPPER (II) COMPLEXATION WITH 2,6-DITHIOL-4-TERT-BUTYLPHENOL AND HYDROPHOBIC AMINES

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*The complex formation of copper with 2,6-dithiol-4-tert-butylphenol (DTBP) and hydrophobic amines (Am) was investigated by spectrophotometric methods. Aniline (An), N-methylaniline (mAn) and N,N-dimethylaniline (dAn) were used as the hydrophobic amine. It was found that complexes with different ligands are formed in weakly acidic environment ( $pH_{opt}=4.6-6.1$ ). The ratio of reactants in complexes with different ligands corresponds to the  $Cu(II) : DTMF : Am = 1:2:4$ . The maximum in the spectrum of light absorption is observed at  $\lambda=538-545$  nm. The molar absorption coefficients are equal (up  $3.82$  to  $4.25$ ) $\times 10^4$ . The photometric methods for copper determination in various grades steels were developed based on the data obtained.*

*Keywords: copper, extraction-photometric method, 2,6-dithiol-4-tert-butylphenol, definition*

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