E-06

STUDIES WITH METAL ION INTERACTION WITH PENICILLIN AND TETRACYCLINE

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Metal ion interaction with Tetracycline and Penicillin have been investigated in solution. Spectral observations identify an absorption band at 240 nm which was linearly dependent on the concentration of the transition metal ion added. Potentiometric titrations confirmed the reported order of complex formation viz: $Cu > Ni > Cd > Zn$. Quantitative polarographic studies showed that with the Cu^{2+} -tetracycline

system, values were obtainable for both the stoicheiometry and stability constant. Spectral studies with penicillin and Fe^{3+} showed that the observed changes at 515 nm could be used for analytical procedures for both Fe^{3+} and penicillin. The results obtained are of significance in studies of Drug action and interaction.

Reference

Baker, W. A. *and* Brown, P. M. (1966). *J. Amer. Chem. Soc.*, **88**, 1314-1317.