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### Spectrophotometric Studies of the Charge Transfer Complexes formed between Pyridine and its Amino Derivatives (Donor) and DMAD (Acceptor)

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**Abstract:** Nitrogen-containing heterocyclic compounds are of special interest as they behave as  $n$ - as well as  $\pi$  electron donors. Charge-transfer complexes of Pyridine and its amino derivatives are widely used by the pharmaceutical, textile, agricultural and other industries. Keeping in view, in the present work, formation of charge transfer complexes between the pyridine & its amino derivatives (donor) and DMAD (acceptor) have been investigated. The stoichiometry of the synthesized CT complexes was determined by mole ratio method spectrophotometrically and found to be 1:1. The formation constant and molar extinction coefficient of each synthesized charge transfer complex was also determined using Benesi-Hildebrand equation.

**Keywords:** Charge transfer Complexes, Pyridine, Picoline, Mole-ratio method, Benesi-Hildebrand equation.

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