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## Synthesis and Characterization of Diethyl 4-Amino-1-(3-Chlorophenyl)- 1H-Pyrazole-3,5 Dicarboxylate

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### Abstract

*In the present study, Diethyl 4-amino-1-(3-chlorophenyl) -1H-pyrazole-3,5 dicarboxylate (D4A1(3-cl)1HP35D) was synthesized. The structure of newly synthesized compounds of Diethyl 4-amino-1-(3-chlorophenyl -1H-pyrazole-3,5 dicarboxylate was characterized by x-ray diffraction (XRD), Fourier transforms infrared spectroscopy (FTIR) and Transmission electron microscopy (TEM). The compound has been prepared by the chemical root method and crystal structure was determined by x-ray diffraction technique. The XRD pattern of (D4A1(3-cl)1HP35D) confirms the crystalline nature and (h k l) values are indexed. From the experimental analysis, the presence of functional groups in the synthesized compound and particle size of the compound has been estimated by FTIR and TEM spectroscopy.*

### Author Keywords

Pyrazole, Synthesis, XRD, FTIR, TEM spectroscopy

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