



Crystal Structure and Hirshfeld Surface Analysis of a β -Carboline Derivative

Geetha D. V¹, Harsha K. B², Sridhar M. A^{1*} and Rangappa K. S²

1. Department of Studies in Physics, Manasagangotri, University of Mysore, Mysuru 570 006, **INDIA**

2. Department of Studies in Chemistry, University of Mysore, Mysuru 570 006, **INDIA**

Email: mas@physics.uni-mysore.ac.in

Accepted on 10th May 2016

ABSTRACT

The title compound was synthesized in redox neutral C–H functionalization method. The resultant compound was characterized by ¹H NMR and X-ray diffraction. The X-ray diffraction study reveals that the sample has crystallized in the triclinic crystal system with the space group $P\bar{1}$. The asymmetric unit cell contains two molecules. The lattice parameters are $a = 9.6544(3) \text{ \AA}$, $b = 11.1048(4) \text{ \AA}$, $c = 14.1787(5) \text{ \AA}$, $\alpha = 87.2370(10)^\circ$, $\beta = 70.5310(10)^\circ$, $\gamma = 65.3700(10)^\circ$ and $V = 1295.48(8) \text{ \AA}^3$. The molecule is stabilized by both intra and intermolecular interactions of the type C–H...O, C–H...N and N–H...O hydrogen bonds.

Keywords: β -carbolines, *P. Harmala*, Hirshfeld surface analysis, Fingerprint plots.
