## Crystal Structure of a Histidine Schiff Base

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Threonine and histidine are essential aminoacids which have big importance in bioorganic and medicinal chemistry. Their Schiff bases are also important in biological systems because of their functional role in reactions, transaminations, racemizations and decarboxylations [1].

At the beginning of our research program on aminoacid Schiff [N-(2-hydroxy-1threonine Schiff bases base naphthylidene)threonine] has been isolated and investigated [2]. In this work, we would like to present an x-ray investigation of a new synthesized histidine Schiff base [N-(2-hydroxy-1naphthylidene)histidine]as the second part of our studies. The crystal belongs to orthorhombic, space group  $P2_12_12_1$  with the following crystallographic parameters: a=6.133(5), b=7.168(5), c=33.639(5) Å, V=1478(2) Å<sup>3</sup>. The final R factor: R=0.0394, wR=0.0784. These type Schiff bases usually show photochromic or thermochromic characters depending on their tautomeric forms [3,4]. According to the present crystallographic results, histidine Schiff base prefer keto-amine tautomerism rather than enol-imine tautomerism which was observed in the structure of threonine Schiff base. A strong intra-molecular hydrogen bond [ N-H...O: 2.592(9)Å ] indicated that proton transfer from hydroxy group of naphthalidene to the nitrogen atom is favoured by the charge distribution of the (keto-amin ) resonance form.

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