

## CRYSTAL STRUCTURE OF 1,5-BIS(2-HYDROXY-3-METHOXYBENZYLIDENE)CARBOHYDRAZIDE

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**Abstract.** The solid-state structure of a symmetrical carbohydrazone, namely 1,5-bis(2-hydroxy-3-methoxybenzylidene)carbonohydrazide (**1**) was determined by X-ray single crystal diffraction and infrared spectroscopy. It crystallizes in the monoclinic space group  $P2_1/n$  with unit cell parameters  $a = 10.1198(6)$ ,  $b = 22.7847(11)$ ,  $c = 15.1738(10)$  Å,  $\beta = 100.458(6)^\circ$ ,  $Z = 4$ ,  $V = 3440.6(3)$  Å<sup>3</sup>,  $R_1 = 0.0540$ . Crystal structure of **1** is defined by two crystallographic independent molecules, which are bonded via N–H···O hydrogen bond. These organic molecules are a mixture of *syn* and *anti* conformers in keto-amino tautomeric form of the central carbamide fragment. 1D and 2D NMR experiments have argued on the presence of the title compound in DMSO-*d*<sub>6</sub> solution mostly in *syn* conformation as keto tautomer regarding carbamide unity and enol-imino form when considering its aldehyde residue.