Crystal Structures of New Schiff Bases

$N,N'$-Bis(2-hydroxy-3-methoxybenzylidene)-1,4-diaminobutane and $N,N'$-Bis(2-hydroxy-4-methoxybenzylidene)-1,2-diaminoethane

Mohammad Hossein Habibi, Mohammad Khaledi Sardashti, Kazem Barati, Ross W. Harrington, and William Clegg

$^a$ Department of Chemistry, University of Isfahan, Isfahan, 81746-73441, Iran
$^b$ School of Natural Science (Chemistry), Newcastle Upon Tyne, NE1 7RU, UK

Reprint requests to Prof. Dr. M. H. Habibi.
E-mail: habibi@chem.ui.ac.ir

received October 22, 2006

The crystal structures of $N,N'$-bis(2-hydroxy-3-methoxybenzylidene)-1,4-diaminobutane (1) and $N,N'$-bis(2-hydroxy-4-methoxybenzylidene)-1,2-diaminoethane (2) have been determined by single-crystal X-ray diffraction. Compound 1 crystallizes in the triclinic space group $P\overline{1}$ with $a = 12.6062(15)$, $b = 12.6317(14)$, $c = 12.8917(15)$ Å, $\alpha = 102.728(2)$, $\beta = 110.493(2)$, $\gamma = 92.266(2)^\circ$, $Z = 4$, with 4 crystallographically independent molecules in the unit cell, each having crystallographic inversion symmetry. Compound 2 crystallizes in the monoclinic space group $C2/c$ with $a = 18.840(4)$, $b = 7.6120(18)$, $c = 11.5311(11)$ Å, $\beta = 90.379(17)^\circ$, $Z = 4$. The molecules have crystallographic $C_2$ symmetry. Intramolecular hydrogen bonds occur between O(2) and N(1) (2.597(2) Å) and between O(4) and N(2) (2.588(2) Å) for 1 (values for two independent molecules), and between O(1) and N(1) (2.587 (2) Å) for 2.

Key words: Schiff Base, X-Ray Structure