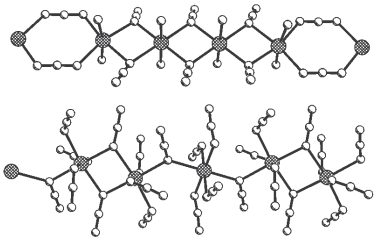
s13.m36.p2 **Structural Chemistry of Cd(II)azido Complexes.** Franz A. Mautner[a], Christian Gspan[a], Morsy A.M. Abu-Youssef[b], Ahmed M.A. Badr[b], Afaf K. Hafez[b] and Mohamed A.S. Goher[b], [a]*Technical University Graz, Institute of Phyical and Theoretical Chemistry, Austria, and* [b]*Chemistry Department, Alexandria University, Alexandria 21321, Egypt. E-mail: mautner@ptc.tu-graz.ac.at*

Keywords: Cadmium(II); Azido; Complexes

As a consequence of the explosive nature of azide compounds the number of reported Cd(II)azido complexes is very small.[1-9] The crystal structures of 10 new Cd(II)azido complexes are reported and the structural chemistry of Cd(II) in its azido complexes is discussed. Coordination number 6 with octahedral geometry around the metal centers is the common feature of all structures. The azido groups act as terminal, bidentate μ(1,1)- or μ(1,3)-, and tridentate μ(1,1,1)- or μ(1,1,3)-bridging ligands; thus different azido bridging sequences are observed. One-dimensional (1-D) chains of polyhedra with different topologies are observed in 12 complexes. Two-dimensional (2-D) layers are formed in 10 compounds. In five structures 1-D Cd(II)azido chains are linked by further bridging ligands to form the layer structures, whereas 5 other complexes possess 2-D Cd(II)azido sub-lattices. Three-dimensional (3-D) networks are observed in the crystal structures of [Cd(pyridine)$_2$(N_3)$_2$], [Cd(3-aminopyridine)(N_3)$_2$] and [Cd(4-aminobenzoato)(N_3)$_2$(H_2O)].



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s13.m36.p3 **Crystal structure and Spectroscopic studies of bis [*N*-(2-iodo)-naphthaldiminato] copper (II).** H. Ünver, *Ankara University, Faculty of Science, Department of Physics, TR-06100 Besevler-Ankara, Turkey. E-mail: unver@science.ankara.edu.tr*

Keywords: Schiff base ligand; Inversion symmetry; Spectroscopic studies

2-Hydroxy Schiff bases ligands and their copper (II) complexes play a major role in both synthesis and structural research [1]. Schiff base complexes have continued to play the role one of the most important stereochemical models in main group and transition metal coordination chemistry with their easy preparation diversition and structural variation [2]. There have been many crystal structure determinations of 2:1 complexes between copper (II) and planar bidentate ligand (*N*-(2-iodo)-naphthaldimine) with two O and two N donor atoms. The geometry of the immediate coordination sphere is usually planar.

The Schiff base complex bis [*N*-(2-iodo)-naphthaldiminato] copper (II) ($C_{34}H_{22}NOI$) has been studied by elemental analysis, IR and ^{1}H-NMR techniques and the structure of compound has been examined crystallography. The title compound crystallises in the monoclinic space group P 2_1/c with a = 8.229(2), b = 15.840(4), c = 11.389(3) Å, β= 104.49(2)° (R = 0.053 for 2507 reflections [I>2σ(I)]). It has crystallographic inversion symmetry. Two bidentate Schiff base ligand coordinates to the Cu atom in a square-planar arrangement. The Cu-N 1.990(2) Å and Cu-O 1.896(2) Å distances are and respectively.

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