S008 COORDINATION BEHAVIOUR OF METHAZOLAMIDE. II. SYNTHESIS AND CHARACTERIZATION OF Co(II) AND Zn(II) METHAZOLAMIDE COMPLEXES. CRYSTAL STRUCTURE OF [Co(Methazolamide)(4-imino-2-methyl-2-pentamine)$_2$ (NH_3)](NO_3)$_2$ .2H_2O.

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As a continuation of our study on the coordination behaviour of Methazolamide (Hmacm), the synthesis and characterization of Zn(macm)2(NH3)2,Co(macm)2(RN)2.nH2O [RN =Py or NH3] complexes have been carried out.

The Ir spectra of these complexes exhibit the bands attributed to the N-H sulfonamido and SO2 vibrations strongly modified and shifted. This fact leads us to propose that the ligand binds the metal ion through the N atom of monodeprotonated sulfonamido moiety[1,2].

Orange crystals of [Co(Methazolamide)(4-imino-2-methyl-2-pentamine)2 (NH3)](NO3)2 .2H2O have been obtained by adding concentrated ammonia to a acetone solution of Hmacm and Co(NO3)2 .6 H2O.

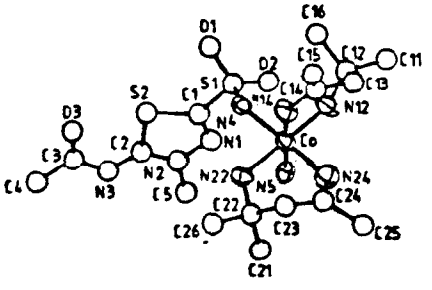

FIGURE1. Ortep view of Co(II) complex

The crystal structure (Fig. 1) shows the Methazolamide acting as neutral ligand via the N atom of the sulfonamido moiety. This is the first crystal structure of a Acetazolamide - like complex in which the ligand has not been deprotonated.

The ligand 4-imino-2-methyl-2-pentamine is obtained by a condensation reaction between acetone and ammonia similar to that reported by Cook[3]

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2.S. Ferrer, G. Alzuet and J. Borrás, *J. Inorg. Biochem.*,37, 163 (1989).
3.Cook F.D. and Mckenzie E.D., *Inorg. Chim. Acta*, 101, 93 (1985)