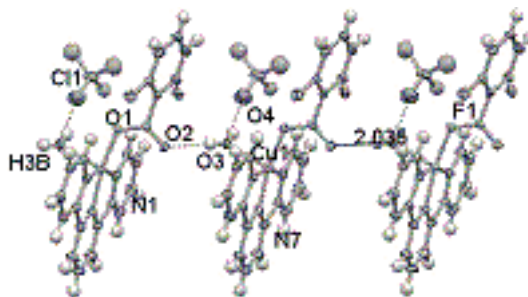


W0577

**Building Hydrogen-bonded Frameworks of Copper (II) Complexes, via Interactions Between Carboxyl Ligands and Coordinated Water Molecules.** Sergio Martínez-Vargas, Simón Hernández-Ortega, Rubén A. Toscano, Jesús Valdés-Martínez, Inst. de Química, UNAM. Circuito Exterior s/n, Cd. Universitaria 04510 Coyoacán, México D.F., jvaldes@servidor.unam.mx

We will present the predictable use of coordinated water molecules to assemble  $[\text{Cu}(\text{N},\text{N},\text{N})(\text{CA})\text{H}_2\text{O}]$  tectones into hydrogen bonded networks. Where (N,N,N) represents the tridentate amines terpyridine and 4-phenylterpyridine, and CA represents ligands containing a carboxylic group. The tridentate amines allows us to control the usually non-controllable geometry around the Cu atom [1]. The CA has two functions, one to coordinate, as monodentate ligand, in an equatorial position to the metal ion and second to act as hydrogen bond acceptors to the coordinated water molecules. In this way, we use the very good H-bonding properties of water molecules under controlled conditions to build up infinite hydrogen bonded 1-D chains.



[1] C.B. Aakeröy, A.M. Beatty, J.Desper, M. O'Shea and J.Valdés-Martínez *Dalton Trans.*, 2003, 3956.