

E0017

Crystal Structures of Three Bis(*L*-aminoacidato)Copper(II) Complexes: Polymeric Networks Based on Hydrogen Bonds and Intermolecular Cu···O Bonds. N. Judas, Chemistry Dept., Lab. of General and Inorganic Chemistry, Faculty of Science, Univ. of Zagreb, Ul. kralja Zvonimira, HR-10 000 Zagreb, Croatia.

Crystal and molecular structures of *trans*-[Cu(Gly)₂](H₂O), *trans*-Cu(Val)₂ and *trans*-Cu(Trp)₂ complexes were determined. Two procedures were employed to obtain single crystals: crystallization from saturated solutions in the presence of excess solid ligand, and conversion of a *bis*(β-diketonate)copper(II) complex into a *bis*(*L*-aminoacidato)copper(II) complex *via* a difference in solubility and kinetic stability in whiskey medium. Crystal structures of all compounds are dominated by N-H···O hydrogen bonds and *intermolecular* Cu···O bonds. The structure of *trans*-[Cu(Gly)₂](H₂O) may be described in terms of polymeric layers of complex molecules. The interlinking of molecules in each layer can be rationalized to tetramers stabilized by *intra*- and *intermolecular* N-H···O hydrogen bonds. In case of *trans*-Cu(Val)₂, the structure contains polymeric chains made up of complex dimers. Finally, *trans*-Cu(Trp)₂ displays *intermolecular* hydrogen bonding of N-H···π type despite alternative hydrogen bond accepting sites in the crystal, anticipated to get more readily involved in hydrogen bonding.