

ON THE INTERACTION OF COPPER WITH TRIS (HYDROXYMETHYL) AMINO METHANE.
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The interaction of copper with tris(hydroxymethyl) aminomethane (TRIS) has been studied by optical and ESR spectroscopic techniques. In solution, three different copper complexes have been obtained as function of pH: at pH10 the ESR parameters are (all room temperature) $g_o=2.135$, $A_o=82$ gauss and nitrogen superhyperfine structure $A_N=9.5$ gauss, characteristic of two nitrogen ligands of the metal; at pH6.5, $g_o=2.147$, $A_o=65$ gauss and at pH5.0, $g_o=2.180$, $A_o=44$ gauss. The high pH complex was cristallized and its molecular structure determined by X-ray methods and refined to a final R-factor of 0.020. The complex displays crystallographic C_2 symmetry with the Cu^{2+} ion sited on the two-fold axis and coordinated to the oxygen and nitrogen atoms of two TRIS moieties and to the O-atoms of a water molecules also sited on the symmetry axis.

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