

Stability and structure of copper(II) complexes with 2-amino-2-deoxy-D-mannose and some derivatives thereof.

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Potentiometric and spectroscopic studies indicate that 2-amino-2-deoxy-d-mannose (ManN), its methyl α -glycopyranoside, and methyl 2-amino-2-deoxy- α,β -d-galactopyranoside are good chelating agents for cupric ions. The stability constants for the complexes with the *manno* compounds are higher than those of 2-amino-2-deoxy-d-galactose (GalN) and 2-amino-2-deoxy-d-glucose (GlcN). The primary binding site is the amino group and the most effective secondary site in the *manno* compounds is HO-3. Comparison of the co-ordination abilities of GalN, GlcN, ManN, and their methyl glycopyranosides indicates that various hydroxyl groups can be involved in the binding of metal ions. The stability constants of the Ni(II) and Co(II) complexes with ManN are also presented.

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