Co-ordination of copper(II) with monoamino-triols and -tetrols. Effect of stereo-chemistry on complex formation.

Autorzy

Małgorzata Jeżowska-Bojczuk

Henryk Kozłowski

S. Lamotte

P. Decock

Andrzej Temeriusz

I. Zajączkowski

J. Stępiński

Rok wydania

1995

Czasopismo

Journal of the Chemical Society, Dalton Transactions

Strony

2657-2661

DOI

10.1039/DT9950002657

Kolekcja

Naukowa

Język

Angielski

Typ publikacji

Artykuł

Streszczenie

A series of 4-aminobutanetriols and 5-aminopentanetetrols was synthesised and their co-ordination abilities towards copper(II) studied by potentiometry and spectroscopic techniques (UV/VIS, ESR and CD). The basic binding mode involves the amino nitrogen and the adjacent deprotonated hydroxyl group. The latter donor acts as a bridge between two metal ions giving stable dimeric species. No monomeric complexes were detected in the systems studied. The formation of the alkoxo-bridged complexes seems to be the most characteristic feature of the investigated ligands. Other hydroxyl donors are also involved in the metal-ion binding. The stability constants calculated from the pH-metric data showed that the chirality of the carbons in an aminoalcohol molecule may have a considerable effect on its co-ordination ability.

Adres publiczny

https://doi.org/10.1039/DT9950002657

Strona internetowa wydawcy

https://www.rsc.org/