

Copper(II) complexation by (pyridinyl)aminomethane-1,1-diphosphonic acid derivatives; spectroscopic and potentiometric studies.

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Rok wydania

2011

Czasopismo

Polyhedron

Numer woluminu

30

Strony

1274-1280

DOI

10.1016/j.poly.2011.02.006

Kolekcja

Naukowa

Język

Angielski

Typ publikacji

Artykuł

Streszczenie

The complex formation between copper(II) and (pyridinyl)aminomethane-1,1-diphosphonic acid derivatives was studied by means of pH-potentiometry, spectroscopic methods (UV-Vis, EPR) and mass spectrometry (MS). The bisphosphonate ligands form polynuclear $\text{Cu}_3\text{H}_x\text{L}_3$ ($x = 4, 3, 2, 1, 0, -1$) species besides the mononuclear 1:1 and 1:2 metal-to-ligand molar ratio complexes. Two phosphonate groups are basic binding sites for the metal ion. It is suggested that in the polynuclear complexes the ligands adopt chelating and bridging modes *via* the four oxygen atoms of the two phosphonate groups.

Słowa kluczowe

Copper (II) complex, Diphosphonic acids, Stability constants, spectroscopic studies

Adres publiczny

<https://doi.org/10.1016/j.poly.2011.02.006>

Strona internetowa wydawcy

<http://www.elsevier.com>