

Copper complexes of dipeptides with L-Lys as C-terminal residue: a thermodynamic and spectroscopic study.

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Rok wydania

2000

Czasopismo

Polyhedron

Numer woluminu

19

Strony

2409-2419

DOI

10.1016/S0277-
5387(00)00539-8

Kolekcja

Naukowa

Język

Angielski

Typ publikacji

Artykuł

Streszczenie

Complex-formation equilibria of some dipeptides (glycyl-lysine, alanyl-lysine, histidyl-lysine and β -alanyl-lysine) with the Cu(II) ion have been studied in aqueous solution, at $I=0.1$ mol dm⁻³ (KNO₃) and $T=25^\circ\text{C}$. Protonation and complex-formation constants have been determined potentiometrically; complex-formation model and species stoichiometry have been checked carefully by means of different spectroscopic techniques (visible absorption, CD, EPR). The structure of the main complex species is discussed, on the basis of thermodynamic data obtained by direct calorimetry. The formation of binuclear species is demonstrated and it is suggested that the side amino group of lysine participates in complex formation at alkaline pH values.

Słowa kluczowe

Copper-dipeptide complexes, Glycyl-lysine, Alanyl-lysine, Histidyl-lysine, β -alanyl-lysine

Adres publiczny

[https://doi.org/10.1016/S0277-5387\(00\)00539-8](https://doi.org/10.1016/S0277-5387(00)00539-8)

Strona internetowa wydawcy

<http://www.elsevier.com>

