

Impact of α -hydroxymethylserine (HmS) residue on the binding ability of histydył residue in the HmS-His dipeptide towards Cu^{II} , Ni^{II} and Zn^{II} .

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1999

Czasopismo

Journal of the Chemical
Society, Dalton Transactions

Strony

3673-3677

DOI

10.1039/A904954A

Kolekcja

Naukowa

Język

Angielski

Typ publikacji

Artykuł

Streszczenie

Potentiometric and spectroscopic data have shown that α -hydroxymethylserylhistidine is a very efficient ligand for Cu^{II} , Ni^{II} and Zn^{II} . The stabilities of the complexes formed are considerably higher than those obtained for Gly-His or Ala-His dipeptides. Copper(II) and Ni^{II} form very stable tetrameric complexes $\text{M}_4\text{H}_{-8}\text{L}_4$. According to ^1H NMR spectra the nickel tetrameric complex is of C_2 symmetry with two pairs of different imidazole rings. Zinc(II), on the other hand, forms only monomeric species but due to the second His residue it forms very stable ZnH_{-1}L species *via* a $\{\text{NH}_2, \text{N}^-_{\text{amide}}, \text{N}_{\text{imidazole}}\}$ donor set.

Adres publiczny

<https://doi.org/10.1039/A904954A>

Strona internetowa wydawcy

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