

## Copper(II) complexes of dipeptides containing aspartyl, glutamyl, and histidyl residues in the side chain.

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### Rok wydania

1993

### Czasopismo

Journal of Inorganic  
Biochemistry

### Numer woluminu

51

### Strony

715-726

### DOI

10.1016/0162-  
0134(93)85004-r

### Kolekcja

Naukowa

### Język

Angielski

### Typ publikacji

Artykuł

### Streszczenie

Copper(II) complexes of various dipeptides containing carboxylate and imidazole-N3 donors ( $\alpha$ - and  $\gamma$ -GluVal,  $\alpha$ - and  $\beta$ -AspGly,  $\beta$ -AspHis,  $\gamma$ -GluHis, and homocarnosine) were studied by potentiometric and spectroscopic methods in solution. It was found that the presence of an  $\alpha$ -carboxylate group in the N-terminal part of a peptide molecule significantly enhances the metal-binding ability of the ligands as a consequence of stable bis complex formation involving amino acid-like coordination. The interaction of copper(II) with  $\beta$ -AspHis was characterized by the formation of an imidazole-bridged dimeric species, while the formation of bis complexes was detected in the case of  $\gamma$ -GluHis. Binding of the imidazole N3 and deprotonated amide nitrogen was presumed in the copper(II)-homocarnosine system.

### Adres publiczny

[https://doi.org/10.1016/0162-0134\(93\)85004-r](https://doi.org/10.1016/0162-0134(93)85004-r)

### Strona internetowa wydawcy

<http://www.elsevier.com>

Plik został wygenerowany dnia 2026-08-21 03:30:40

Adres w repozytorium <https://old.chem.uni.wroc.pl/pl/repozytorium/P01JKbN>.