N-p-amino- and *N*-p-nitro-phenylsulfonyl derivatives of dipeptides a new family of ligands for copper(II). Potentiometric and spectroscopic studies.

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1995

Czasopismo

Journal of the Chemical Society, Dalton Transactions

Strony

2729-2733

DOI

10.1039/DT9950002729

Kolekcja

Naukowa

Język

Angielski

Typ publikacji

Artykuł

Streszczenie

The co-ordination ability of four dipeptide analogues substituted on the N-terminal amino group with *p*-nitrophenylsulfonyl (nps-Ala-Ala and nps-Ala-His) and *p*-aminophenylsulfonyl (aps-Ala-Ala and aps-Ala-His) groups was studied by potentiometric and spectroscopic (UV/VIS absorption, CD and EPR) techniques. The N-terminal sulfonyl substituent drastically changes the acidity of the sulfonamide proton making nitrogen very efficient in binding to Cu^{II}. The sulfonamide nitrogen having p*K* between 9 and 11 does not need any anchoring binding group to form complexes with Cu^{II}. The *para* substituent on the phenyl ring (amino or nitro) influences very strongly the acidity of the sulfonamide proton. The nps or aps moieties change the co-ordination equilibria considerably when compared to the parent dipeptide Ala-His. Both groups enforce the formation of dimeric complexes, whereas in the case of the parent dipeptide the major species are only monomeric.

Adres publiczny

DOI https://doi.org/10.1039/DT9950002729

Strona internetowa wydawcy

https://www.rsc.org/