Formation equilibria of nickel complexes with glycyl-histidyl-lysine and two synthetic analogues.

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Complex-formation equilibria between the Ni(II) ion and the natural tripeptide glycyl-l-histidyl-l-lysine have been investigated. Two synthetic analogues, where the histidine residue has been substituted with l-4,5,6,7-tetrahydro-1*H*-imidazo[4,5-*c*]pyridine-6-carboxylic acid (l-Spinacine) and l-1,2,3,4-tetrahydro-isoquinolin-3-carboxylic acid (Tic), respectively, have been considered, as well. Different experimental techniques have been employed: potentiometry, calorimetry, visible spectrophotometry and CD spectroscopy. Structural hypotheses on the main complex species are suggested. Evidences on the formation of tetrameric species with the first ligand are shown. No involvement of the side-chain amino group of lysine residue in metal ion coordination was found.

Słowa kluczowe

Nickel complexes, Glycyl-hystidyl-lysine, l-4, photoluminescence, structure elucidation, 7-tetrahydro-1H-imidazo[4, 5-c]pyridine-6-carboxylic acid, l-Spinacine, l-1, molecule, Ion, 4-tetrahydro-isoquinolin-3-carboxylic acid, Solution equilibria

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