



Polythiol binding to biologically relevant metal ions.

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Streszczenie

The coordination properties of three peptides with CXXC motif: Ac-GCASCDCRACKK-NH₂, Ac-GCASCDCRAAKK-NH₂ and Ac-GCASCDCNARAANK-NH₂ as donors of four, three and two thiol ligands for Ni²⁺, Cd²⁺, Zn²⁺ and Bi³⁺ were studied by potentiometric titrations, UV-Vis and CD spectra measurements. Since the stability of the complexes is closely connected with the amount of the metal-bound cysteine sulfurs, competition plots of the complexes of peptides with 2, 3 and 4 cysteines further prove the involvement of all thiols in the metal ion binding. Furthermore, the sulfur-bound zinc complexes appear to be much more stable than the sulfur-bound nickel ones. The stabilities of the studied complexes decreases in the series Bi³⁺ >> Cd²⁺ > Zn²⁺ > Ni²⁺.

Adres publiczny

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