

Complexes of vanadium(III) with aromatic amino acids and L-proline in aqueous solution.

Autorzy

Halina Podsiadły

Zofia Karwecka

Rok wydania

2009

Czasopismo

Polyhedron

Numer woluminu

28

Strony

1568-1572

DOI

10.1016/j.poly.2009.03.015

Kolekcja

Naukowa

Język

Angielski

Typ publikacji

Artykuł

Streszczenie

The equilibria of the complexation processes of V^{3+} ion with L-phenylalanine, L-tyrosine, L-tryptophan and L-proline in aqueous solution were studied by potentiometric and spectroscopic (UV, Vis, CD) methods. The results indicate that all ligands (except L-tyrosine) form only 1:1 species with vanadium(III) ion in the pH range about 2–5. More complex equilibria were observed in the vanadium(III)–L-tyrosine system. Only in this system relatively stable ML_2 species predominantly exists in the pH range 3–5. The results of spectroscopic measurements indicate that in ML and ML_2 species chelated bounds through O and N atoms appear in all investigated systems. Above pH 5 strong hydrolysis processes of vanadium(III) occurred.

Słowa kluczowe

Vanadium(III), Stability constants, Amino acids, Speciation

Adres publiczny

<https://doi.org/10.1016/j.poly.2009.03.015>

Strona internetowa wydawcy

<http://www.elsevier.com>