

Coordination properties of N-(Thio)phosphorylated thioureas and thioamides with respect to Co(II), Ni(II), Zn(II), and Cd(II) ions in solution

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Abstract

The acid-base and coordination properties of N-(thio)phosphorylated thioureas and thioamides $R_1C(X)NHP(Y)R_2$, where X, Y = S, O (in various combinations); $R_1 = t\text{-Bu, } i\text{-Pr, PhNH, Ph}$; $R_2 = (OPr\text{-}i)$, with respect to Co(II), Ni(II), Zn(II), and Cd(II) ions have been studied by pH-metry and UV spectrometry in an organic solvent. The pK values, the stability constants $\log\beta$ and the maximum accumulated fractions of complex species in the solution have been calculated. © 2007 Pleiades Publishing, Inc.

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