Complexation equilibria of Zn(II) complexes contain pyridoxine HCl and some bioligands: pH-metric studies

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Mixed ligand complexes (MC) of pyridoxine HCl drug as ligand [P] with Zn(II) in the occurrence of some bioligands (amino acids or peptides) as ligands [L] have been studied using pH-metric measurements in aqueous solution at 25 °C and ionic strength $I = 0.10 \text{ mol dm}^{-3}$ (NaNO_3). The obtained complexes and their formation constants were established on basis of computer analysis potentiometric data, using specific program model (HYPERQUAD). Complexes mixed-ligand were formed by a simultaneous mechanism. The parameter $\Delta \log K$, $\log X$, and % R.S. were evaluated and discussed. The determination of the pH of solutions was executed through finding the percentage of the distribution of several species.

Keywords: Complexes; Formation constant; Drug; Amino acids; Peptides; Potentiometric titration.

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