Short Communication

Solution Behaviour of Ternary Complexes of Cobalt (II) Involving Sulfanilamide and Dicarboxylic acids

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Stability constants and complex formation equilibria between Co(II) and sulfanilamide (SM) with dicarboxylic acids (L) were studied pH-metrically at 25 ± 0.1 °C and ionic strength $I = 0.1$ mol/L NaClO₄ in aqueous solutions. The stepwise method is responsible for the formation of [Co(II)-SM-L] complexes, while dicarboxylic acid ligation follows sulphanilamide-Co(II) binding. Stability constants were obtained by applying the potentiometric data in HYPERQUAD computer program. The stoichiometry of the formed complexes was confirmed by conductometric method. A comparison between binary and ternary complexes' relative stabilities was conducted.

Keywords: Stability constant, Co(II), Sulfanilamide, Dicarboxylic acids, pH-metrically.

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