The behavior of aqueous solutions of KSCN and NH$_4$SCN in binary and ternary systems at liquid - solid equilibrium

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Abstract *This work presents the results obtained for the activity coefficients of the potassium thiocyanate and ammonium thiocyanate in aqueous solutions as well as the coefficients of the mixed activity electrolytes in connection with the ternary system, determined by a differential cryoscopy method. The application of the additivity rule with respect to the activity coefficients of the electrolytes in binary systems KSCN-H$_2$O, NH$_4$SCN- H$_2$O and in ternary system KSCN- NH$_4$SCN- H$_2$O, allowed to calculate a deviation function, the value of which, increasing with the concentration, shows the existence of ionic interactions in the solutions of mixed electrolytes.*

Keywords: thermodynamic activity coefficients, cryometric data, electrolytes, liquid-solid equilibrium.