

A Contribution to the Study of Ternary Saturated Electrolyte Solutions

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A quantity has been introduced, whose dependence on the composition along the branches of the solubility isotherms of ternary systems consisting of two salts with a common ion and water exhibits breaks, which can be explained by the introduction of a previously unobserved configuration of the ternary saturated solution. In the respective region, a saturated solution in a ternary system may undergo second-order phase transitions to achieve specific configurations that are not derived from the structure of the binary saturated solution of the particular solute. It is assumed that further study of this phenomenon could contribute to a better understanding of the processes occurring in concentrated electrolyte solutions.

Key words: Saturated Electrolyte Solutions; Solubility Isotherms; Hydration Analysis; Second Order Phase Transitions; Ternary Systems.