The Influence of the Degree of Organization of Saturated Solutions on the Shape of the Solubility Isotherm

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Special features of solubility isotherms of salt hydrates have been observed, from which the evidence of strong organization of saturated solutions of hydrates may be deduced. Often observed low contents of the non saturating component in the eutonic solution limiting the crystallization branch of hydrated salts is put into connection with this result. The composition of the respective eutonic solutions exhibits a correlation with the hydration entropy of the ions present in the ternary saturated solution.

Key words: Computer Chemistry; Concentrated Electrolyte Solutions; Phase Diagrams; Salt Hydrates; Thermodynamics.