Full Paper

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Calculation of the melting diagram of the binary system n-geptadekan – n-tetrakozan and its experimental study

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Abstract

Liquidus of binary system n-geptadekan - n-tetrakozan was calculated with the equation of Schroeder-Le Chatelier and using the method of UNIFAC. Comparative analysis of the forecasting accuracy for the of the liquidus melting diagram of the n-geptadekan – n-tetrakozan and the experimental data obtained using low-temperature differential thermal analysis has been carried out. Phase equilibria in the system were described and characteristics of the eutectic were obtained. For the eutectic composition of n-geptadekan – ntetrakozan there were experimentally determined the values of enthalpy and entropy of fusion. Eutectic composition of the system can be used as the working body of heat accumulator.