

Phase Diagram and Electrical Conductivity of the AgCl-NdCl₃ Binary System

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Differential scanning calorimetry (DSC) was used to investigate the phase equilibrium in the AgCl-NdCl₃ system. This binary mixture represents a typical example of simple eutectic system, with eutectic composition $x(\text{AgCl}) = 0.796$ and temperature $T_{\text{eut}} = 668$ K, respectively. The electrical conductivity of AgCl-NdCl₃ liquid mixtures, together with that of pure components was measured down to temperatures below solidification. Results obtained are discussed in terms of possible complex formation.

Key words: Phase Diagram; Electrical Conductivity; Neodymium Chloride; Silver Chloride; Differential Scanning Calorimetry (DSC).