

Heat Capacity of the Rb_3LnCl_6 Compounds with $\text{Ln} = \text{La, Ce, Pr, Nd}$

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The heat capacities of the solid and liquid Rb_3LnCl_6 compounds, where $\text{Ln} = \text{La, Ce, Pr, Nd}$, have been determined by differential scanning calorimetry (DSC) in the temperature range 300 - 1100 K. The heat capacity shows a small decrease with increasing temperature from the temperature of phase transition up to 150 - 200 K above this transition for the Rb_3CeCl_6 , Rb_3PrCl_6 and Rb_3NdCl_6 compounds. The measured heat capacities were used to calculate the formation enthalpy of the liquid phase. The results obtained compare satisfactorily with the known experimental data.

Key words: Lanthanum Chloride; Cerium Chloride; Praseodymium Chloride; Neodymium Chloride; Alkali Metals Chlorides; Heat Capacity; Differential Scanning Calorimetry.