

Planning Lab: Determining an Enthalpy Change of Solution

You are required to determine the enthalpy change for the dissolving of $\text{NH}_4\text{Cl}_{(s)}$.

Design a procedure using appropriate apparatus, materials, including the masses and amounts needed. Your procedure must take into account of suitable quantities, concentrations and safety concerns.

You **must write** your procedures in your lab book and obtain my approval before starting the experiment. I will prohibit any procedure I deem to be dangerous. Time will be saved if you show me your procedure **before** you come to the lab.

Your procedure must allow you to collect sufficient relevant data to calculate the molar enthalpy change of solution. Design a suitable data table to include units and uncertainties.

Planning, Data Collection and Data Evaluation should be important aspects of your report.

Discussion

Compare your result with the accepted value of $+ 16.4 \text{ kJ mol}^{-1}$. Suggest reasons for any difference.