Hotpacks and Coldpacks

Chemistry 120 Laboratory
Name _____
Lab Partner _____

Teaching Assistant _____
Lab section A ___
Date _____

MATERIALS AND EQUIPMENT (Optional)

Analytical balance, styrofoam cups, thermometer, water, graduated cylinder, stirring rod calcium chloride and ammonium chloride

OBJECTIVE

Determine the heat of solution of calcium chloride and ammonium chloride

PROCEDURE

The heat of solution is determined by measuring the temperature change upon dissolving a measured mass of the solid material in a known quantity of water in a styrofoam cup. The heat of solution can be obtained from a heat equation based the heat released or required in the dissolution being equal to the heat gained or lost by the water.

Heat of solution/g of solid x (g of solid) = 4.18 J/g °C x (g of water) x ($T_f - T_i$)

DATA

CALCULATIONS

_____

RESULTS

DISCUSSION