Quantitative Heat Data for Salts

Exothermic Salt	Trial 1	Trial 2	Endothermic Salt	Trial 1	Trial 2
Mass (g)			Mass (g)		
Moles (mol)			Moles (mol)		
Initial temperature (°C)			Initial temperature (°C)		
Final temperature (°C)			Final temperature (°C)		
$\Delta T = T_\mathrm{f} - T_\mathrm{i}$(°C)			$\Delta T = T_\mathrm{f} - T_\mathrm{i}$(°C)		
*q_soln (J)			*q_soln (J)		
q_rxn (J)			q_rxn (J)		
ΔH (kJ/mol salt)			ΔH (kJ/mol salt)		
Average ΔH (kJ/mol salt)			Average ΔH (kJ/mol salt)		

*$q_\mathrm{soln} = m \times C_\mathrm{s} \times \Delta T$ where m = mass in grams of water + salt

$C_\mathrm{s} = 4.18$ J/g · °C, the same value as that of water.

Note: For all practical purposes, at constant pressure, $q = \Delta H$

Each group member should show the set-up for one $q_\mathrm{soln}, q_\mathrm{rxn}$, and ΔH calculation for one Trial.

ClassData - Exothermic Salts

Exothermic Salt	Team ΔH/mol	Class Average ΔH/mol
$NaC_2H_3O_2$ Sodium acetate		
$CaCl_2$ Calcium chloride		

Class Data - Endothermic Salts tables

Endothermic Salt	Team ΔH/mol	Class Average ΔH/mol
NH_4NO_3 Ammonium nitrate		
KNO_3 Potassium nitrate		