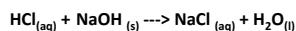
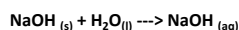
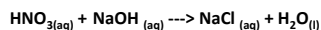
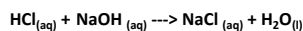


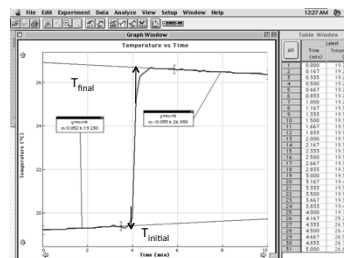
Thermochemistry Lab

Neutralization Reactions / Hess's law



Thermochemistry Lab

Neutralization Reactions / Hess's law



QUESTION

In this Thermochemistry lab, 50.0 mL of 1.0M HCl(aq) is added to 50.0 mL of 1.0M NaOH (each originally at the same temperature). The temperature increases 5.50 oC . Which of the following is true?

- A) The chemical reaction is releasing energy.
- B) The energy released is equal to $C_p \times m \times T$.
- C) The chemical reaction is absorbing energy.
- D) The energy absorbed is equal to $C_p \times m \times T$.
- E) More than one of these.

Report Table

Vol. Solution (mL)	Density Solution (g/mL)	Mass Solution (g)	Specific Heat Solution (J/g °C)	T _i (°C)	T _f (°C)	Δ T (°C)	Δ H _{rxn} (J)	Δ H _{rxn} (kJ/mol)

Answer questions #3,4,& 6 pg. 44 (DVC Lab Manual)

QUESTION

In the neutralization experiment, 50.0 mL of 1.0M HCl(aq) was added to 50.0 mL of 1.0M NaOH. The temperature increased 5.50 °C . The density of the resulting solution of products was 1.02 g/mL and the heat capacity 4.0 J/g °C. The heat for the experiment is:

- A) -2200 kJ
- B) +2200 kJ
- C) -2200 J
- D) +2200 J

QUESTION

In the neutralization experiment, 50.0 mL of 1.0M HCl(aq) was added to 50.0 mL of 1.0M NaOH. The temperature increased 5.50 °C . The density of the resulting solution of products was 1.02 g/mL and the heat capacity 4.0 J/g °C. The heat of neutralization for the experiment is:

- A) -45 kJ/mol
- B) -22 kJ/mol
- C) -4500 J/mol
- D) -220 J/mol