

Name:

Surname:

Report of experiment 3

Introduction

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The objective of the experiment

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If the results of the experiment are recorded in the table answer the following questions

| Experiment | Mass of Cold Water m_1 (g) | Mass of Product m_2 (g) | Temperature of Cold Water T_1 (K) | Equilibrium Temperature $T_{i(\text{exp})}$ (K) |
|----------------------|------------------------------|---------------------------|-------------------------------------|---|
| (KOH) | 100.56 | 5.69 | 373.1 | 298.9 |
| (NH ₄ Cl) | 100.17 | 5.32 | 292.7 | 290.1 |

1. Calculate the number of moles of KOH and NH₄Cl

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2. Calculate Q_{KOH} and $Q_{\text{NH}_4\text{Cl}}$

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3. Calculate the enthalpy ΔH_{KOH} and ΔH_{NH_4Cl}

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4. Predict the dissolution reaction type for KOH and NH_4Cl and justify

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5. Conclusion

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