

CHE 139
Activity 10

All problems are based on the reaction of aqueous magnesium chloride with aqueous sodium hydroxide.

1. Write the formulas of the reactants.
2. What type of reaction is it?
3. Predict the products (write their formulas)
4. Write a balanced chemical equation for the reaction.
5. If the reaction is done with 3.72 grams of sodium hydroxide and 7.32 grams of magnesium chloride, which is the limiting reactant?

6. What is the theoretical yield of the solid product with the quantities in #5?

7. The balanced reaction is endothermic by 2.2 kJ. How much heat energy is transferred with the reactant quantities in #5?

8. Is the heat energy in #7 released or absorbed?

9. If the reaction with the quantities in #5 had a 97% yield, what was the actual yield?