06/05/24

Balance the following chemical reaction: C_8H_{18} (l) + O_2(g) → CO_2(g) + H_2O (l)

If you have 1.75 kg of C_8H_{18}, how many kg of oxygen gas do you need to react with all of the C_8H_{18}? And how much CO_2 will form if that reaction occurs?

If you react 1.25 kg of C_8H_{18} with 575 grams of O_2, how much water will be formed?

How much sodium nitrate do you need to make 750 mL of a 0.28 M sodium nitrate solution?

If you combine 352 grams of $C_6H_{12}O_6$ with enough water to make 1.50 L of solution, what is the molarity of this solution?

If you combine 79.5 grams of sodium oxalate with enough water to make 2.5 L of solution, what will be the concentration of the **sodium ion** in this solution?

If you have 500 mL of a 0.45 M solution of magnesium nitrate, how do you make 250 mL of a 0.18 M magnesium nitrate solution?

You combine 350 mL of 0.25 M aluminum nitrate with 425 mL of 0.15 M ammonium carbonate.
a) Write the balanced total and net ionic equations for what happens

b) How many grams of precipitate form?

c) What is the concentration of each ionic species in solution after the mixing occurs?