

Stoichiometry Review Assignment

Example 1: Calculate the mass of a magnesium, Mg, atoms in grams.

Example 2: Calculate the number of atoms in one-millionth of a gram of magnesium, Mg.

Example 3: How many atoms are in 1.67 moles of magnesium?

Example 4: How many moles of magnesium are in 73.4 grams of magnesium?

Example 7: Calculate the number of propane, C₃H₈ molecules, in 74.6 grams of propane.

Example 8: What is the mass of 10.0 billion molecules of propane?

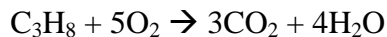
Example 9: How many moles, molecules, and oxygen atoms are contained in 60-g sample of ozone O₃?

Example 13: What mass of phosphorous is contained in 45.3 grams of (NH₄)₃PO₄?

Example 14: What mass of ammonium phosphate would contain 15.0 g of nitrogen?

Example 15: What mass of propane, C₃H₈, contains the same mass of carbon as is contained in 1.35 grams of barium carbonate, BaCO₃?

Reaction Stoichiometry



Example 16: What mass of H_2O is produced from the reaction of 6.3 g of propane?

Example 17: How many molecules of H_2O are produced when 2 moles of O_2 are reacted with excess propane?

Example 18: How many molecules of H_2O are produced when 10 molecules of oxygen react?

Example 19: How many atoms of hydrogen in water are produced when 2.4 moles of propane are reacted?

Example 20: How many molecules of CO_2 are produced when 2.3×10^6 atoms of O_2 are reacted?

Example 21: How many grams of O atoms in CO_2 are produced when 23.2 g of propane are reacted?

Example 22: How many grams of O in water are produced from the reaction of 11.2 grams of H in propane?

Example 23: What is mass of CO_2 produced when 6.5 g of propane is reacted with 14.2 g of O_2 ?

Example 24: What is the number of atoms in H in H_2O are produced when 2.9×10^{11} molecules of propane are reacted with 5.4×10^{12} molecules of O_2 ?