

Composition Stoichiometry Assignment #2
Empirical Formulas

Name _____
Class period _____

1. Find the empirical formula of a hydrocarbon with the following composition:

48.64% carbon

8.16% hydrogen

43.20% oxygen

2. A blue solid is found to contain 36.84% nitrogen and 63.16% oxygen. What is its empirical formula?

3. Determine the empirical formula of a compound that contains 35.98% aluminum and 64.02% sulfur.

4. Analysis of 10.15 grams of a compound known to contain only phosphorous and oxygen indicates a phosphorous content of 4.433 g. What is the empirical formula of the compound?

5. Quantitative analysis shows that a compound contains 32.86% sodium, 22.65% sulfur, and 44.99% oxygen. Find the empirical formula of this compound.

6. Determine the empirical formula for a compound whose chemical analysis is 40.68% carbon, 5.08% hydrogen, and 54.24% oxygen.

7. A compound contains 65.45 g carbon, 5.45 g hydrogen, and 29.09 g oxygen. Find the empirical formula.