1.1. Determining Formula and Molar Masses

Review Questions

1. Calculate the formula mass for each of the following.
   a. K₂SO₄
   b. CuO
   c. Mg₃(AsO₄)₂
   d. Ca₃(PO₄)₂
   e. Fe₂O₃
   f. Al(OH)₃
   g. (NH₄)₂S
   h. C₁₂H₂₂O₁₁

2. On average, how many times heavier are bromine atoms than neon atoms?

3. An unknown element, M, combines with oxygen to form a compound with a formula of MO₂. If 25.0 grams of the unknown element combines with 4.50 grams of oxygen, what is the atomic mass of M?
Lesson Summary

- The percent composition of a compound is the percent of the total mass contributed by each element in the compound.
- Percent composition can be determined either from the masses of each element in the compound or from the formula of the compound.

Further Reading / Supplemental Links

This website has solved example problems for a number of topics covered in this lesson, including the calculation of percent composition by mass.

- [http://www.sciencejoywagon.com/chemzone/05chemical-reactions/](http://www.sciencejoywagon.com/chemzone/05chemical-reactions/)

This website has lessons, worksheets, and quizzes on various high school chemistry topics. Lesson 5-8 is on percent composition.


The website below reviews how to calculate percent composition.


Review Questions

Determine the percent composition of the following compounds.

1. BF₃
2. Ca(C₂H₃O₂)₂
3. FeF₃
4. CrCl₃
5. (NH₄)₃PO₄