Non Sibi High School

Andover's Chem 300: Accelerated/Honors Chemistry

Chapter 3, Review Quiz 1

1

What is the percent by mass of sulfur in $Fe_2(S_2O_3)_3$?

2

What is the empirical formula of $C_{10}H_{14}N_2$?

3

a. An unknown compound was found to be 21.84% carbon and 76.93% iodine by mass, with the remainder being hydrogen. Determine the empirical formula of the compound.
b. In a separate experiment, the molar mass of the compound was found to be about 330 g/mol. Determine the molecular formula of the compound.

4

After 8.75 grams of the hydrate $LiClO_4 \cdot xH_2O$ was heated, the mass of anhydrous $LiClO_4$ remaining was 5.79 grams. Determine the value of x to the correct number of significant figures and the most likely formula of the hydrate.