

A compound containing C, H, N and S yields the following data.

- i.) Complete combustion of 1.6862 g of the compound produced 2.003 gram of CO_2 and 0.819 gram of H_2O .
- ii.) A 0.2315 gram sample of the compound was analyzed by the Dumas method giving 150.0 ml of N_2 gas at 0°C and 0.2152 atm of pressure.
- iii.) The effusion rate of the compound as a gas was measured to be 9.66 ml/min. The effusion rate of OF_2 gas under identical conditions was 16 ml/min.

What is the empirical and molecular formula of the compound?

A compound containing C, H, N and S yields the following data.

- i.) Complete combustion of 1.6862 g of the compound produced 2.003 gram of CO_2 and 0.819 gram of H_2O .
- ii.) A 0.2315 gram sample of the compound was analyzed by the Dumas method giving 150.0 ml of N_2 gas at 0°C and 0.2152 atm of pressure.
- iii.) The effusion rate of the compound as a gas was measured to be 9.66 ml/min. The effusion rate of OF_2 gas under identical conditions was 16 ml/min.

What is the empirical and molecular formula of the compound?

A compound containing C, H, N and S yields the following data.

- i.) Complete combustion of 1.6862 g of the compound produced 2.003 gram of CO_2 and 0.819 gram of H_2O .
- ii.) A 0.2315 gram sample of the compound was analyzed by the Dumas method giving 150.0 ml of N_2 gas at 0°C and 0.2152 atm of pressure.
- iii.) The effusion rate of the compound as a gas was measured to be 9.66 ml/min. The effusion rate of OF_2 gas under identical conditions was 16 ml/min.

What is the empirical and molecular formula of the compound?