

1a. Calculate the molar mass of aluminum nitrate; $\text{Al}(\text{NO}_3)_3$.

b. What is the mass of 0.288 moles of aluminum nitrate?

c. Convert 150. grams of aluminum nitrate into moles:

2a. Calculate the molar mass of gold I Carbonate; Au_2CO_3 .

b. If you have a sample containing 77.7 grams of gold I carbonate, how many moles are in the sample?

c. Convert 0.786 moles of gold I carbonate into grams.

3a. If you have 0.500 moles of CO_2 , how many molecules is this?

b. A beaker contains 9.32×10^{24} molecules of water. How many moles is this?

c. Our classroom contains approximately 7.8×10^{27} air molecules. How many moles is this?

d. An aluminum block contains 0.109 moles of aluminum. How many atoms of aluminum is this?

4. Calculate the molar mass of ferric chromate; $\text{Fe}_2(\text{CrO}_4)_3$