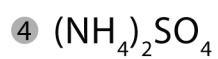
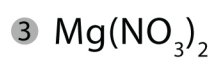
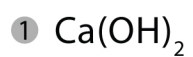


Name : Date :

Molar Mass and Percent Composition Worksheet



Name : Date :

Molar Mass and Percent Composition Worksheet

Answers

1 Ca(OH)_2

Molar mass of Ca(OH)_2 = Molar mass of Ca + (2 x Molar mass of O) +
(2 x Molar mass of H) = 40.078 + 32 + 2.02 = 74.098 g/mol

% of Ca = $(40.078/74.098) \times 100\% = 54\%$

% of O = $(32/74.098) \times 100\% = 43\%$

% of H = $(2.02/74.098) \times 100\% = 3\%$

2 KCl

Molar mass of KCl = Molar mass of K + Molar mass of Cl = 39.0983 + 35.453 =
74.55 g/mol

% of K = $(39.0983/74.55) \times 100\% = 52.44\%$

% of Cl = $(35.453/74.55) \times 100\% = 47.56\%$

3 $\text{Mg(NO}_3)_2$

Molar mass of $\text{Mg(NO}_3)_2$ = Molar mass of Mg + (2 x Molar mass of N) +
(6 x Molar mass of O) = 24.3 + 28 + 96 = 148.3 g/mol

% of Mg = $(24.3/148.3) \times 100\% = 16.5\%$

% of N = $(28/148.3) \times 100\% = 18.8\%$

% of O = $(96/148.3) \times 100\% = 64.7\%$

4 $(\text{NH}_4)_2\text{SO}_4$

Molar mass of $(\text{NH}_4)_2\text{SO}_4$ = (2 x Molar mass of N) + (8 x Molar mass of H) +
Molar mass of S + (4 x Molar mass of O) = 28 + 8.08 + 32.065 + 64 = 132.145 g/mol

% of N = $(28/132.145) \times 100\% = 21.18\%$

% of H = $(8.08/132.145) \times 100\% = 6.11\%$

% of S = $(32.065/132.145) \times 100\% = 24.26\%$

% of O = $(64/132.145) \times 100\% = 48.45\%$