

KONPOSIZIO EHUNDARRA. - EBAZPENAK

1.- Kalkulatu ondorengo konposatu hauen konposizio ehundarra:

a) PH_3 (%91,18 P eta %8,82 H)

c) $\text{Al}(\text{NO}_3)_3$ (%12,68 Al, %67,6% O eta %19,72 H)

a) $M(\text{PH}_3) = 34$

$$\frac{31 \text{ g P/mol}}{34 \text{ g PH}_3/\text{mol}} \cdot 100 = \% 91,18 \text{ P}$$

$$\frac{3 \text{ g H/mol}}{34 \text{ g PH}_3/\text{mol}} \cdot 100 = \% 8,82 \text{ H}$$

c) $M(\text{Al}(\text{NO}_3)_3) = 213$

$$\frac{27 \text{ g Al/mol}}{213 \text{ g Al}(\text{NO}_3)_3/\text{mol}} \cdot 100 = \% 12,68 \text{ Al}$$

$$\frac{42 \text{ g N/mol}}{213 \text{ g Al}(\text{NO}_3)_3/\text{mol}} \cdot 100 = \% 19,72 \text{ N}$$

$$\frac{144 \text{ g O/mol}}{213 \text{ g Al}(\text{NO}_3)_3/\text{mol}} \cdot 100 = \% 67,6 \text{ O}$$

b) H_2SO_4 (%32,65 S, %65,31 O eta %2,04 H)

b) $M(\text{H}_2\text{SO}_4) = 98$

$$\frac{2 \text{ g H/mol}}{98 \text{ g H}_2\text{SO}_4/\text{mol}} \cdot 100 = \% 2,04 \text{ H}$$

$$\frac{32 \text{ g S/mol}}{98 \text{ g H}_2\text{SO}_4/\text{mol}} \cdot 100 = \% 32,65 \text{ S}$$

$$\frac{64 \text{ g O/mol}}{98 \text{ g H}_2\text{SO}_4/\text{mol}} \cdot 100 = \% 65,31 \text{ O}$$

2.- Kalkulatu ondorengo lagin hauetan dagoen hidrogeno masa:

a) 200 g C_3H_8 (36,36 g)

b) 50 g $\text{Ca}(\text{OH})_2$ (1,35 g)

c) 200 g CH_4 (50 g)

d) 50 g CaH_2 (2,38 g)

a) $M(\text{C}_3\text{H}_8) = 44$

$$200 \text{ g C}_3\text{H}_8 \cdot \frac{8 \text{ g H/mol}}{44 \text{ g C}_3\text{H}_8/\text{mol}} = 36,36 \text{ g H}$$

b) $M(\text{Ca}(\text{OH})_2) = 74$

$$50 \text{ g Ca}(\text{OH})_2 \cdot \frac{2 \text{ g H/mol}}{74 \text{ g Ca}(\text{OH})_2/\text{mol}} = 1,35 \text{ g H}$$

c) $M(\text{CH}_4) = 16$

$$200 \text{ g} \cdot \frac{4 \text{ g H/mol}}{16 \text{ g CH}_4/\text{mol}} = 50 \text{ g H}$$

d) $M(\text{CaH}_2) = 42$

$$50 \text{ g CaH}_2 \cdot \frac{2 \text{ g H/mol}}{42 \text{ g CaH}_2/\text{mol}} = 2,38 \text{ g H}$$

3. Ondorengo konposatu hauetatik, zeinek dauka nitrogeno-kantitate handiena?

a) NH_3 b) $\text{CO}(\text{NH}_2)_2$ c) NaNO_3 d) NO_2

a) $M(\text{NH}_3) = 17$

$$\frac{14 \text{ g N/mol}}{17 \text{ g NH}_3/\text{mol}} \cdot 100 = \% 82,35 \text{ N} \leftarrow$$

b) $M(\text{CO}(\text{NH}_2)_2) = 60$

$$\frac{28 \text{ g N/mol}}{60 \text{ g CO}(\text{NH}_2)_2/\text{mol}} \cdot 100 = \% 46,67 \text{ N}$$

c) $M(\text{NaNO}_3) = 85$

$$\frac{14 \text{ g N/mol}}{85 \text{ g NaNO}_3/\text{mol}} \cdot 100 = \% 16,47 \text{ N}$$

d) $M(\text{NO}_2) = 46$

$$\frac{14 \text{ g N/mol}}{46 \text{ g NO}_2/\text{mol}} \cdot 100 = \% 30,43 \text{ N}$$