

Boletín Reacción Química I – 4º E.S.O.

$$\text{masa molecular} = \sum X_{\text{veces que se repite en la molécula}} \cdot M(\text{at})_{\text{masa atómica (tabla)}}$$

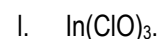
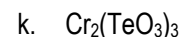
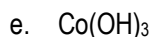
$$\text{masa molecular (H}_2\text{SO}_4) = 2 \cdot M_{\text{atómica}}(\text{H}) + M_{\text{atómica}}(\text{S}) + 4 \cdot M_{\text{atómica}}(\text{O}) = 2 \cdot 1 + 32 + 4 \cdot 16 = 98 \text{ g/mol}$$

$$n^\circ(\text{moles}) = \frac{\text{masa}}{\text{masa molecular}} \xrightarrow{\text{EJEMPLO}} n^\circ(\text{H}_2\text{SO}_4) = \frac{300 \text{ g}}{98 \text{ g/mol}} = 3,06 \text{ moles}$$

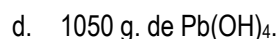
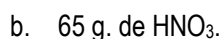
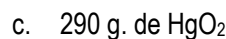
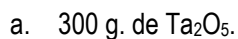
$$1 \text{ mol} \equiv \underbrace{6,022 \cdot 10^{23}}_{\text{Número de Avogadro}} \text{ partículas}$$

$$3,06 \text{ moles de H}_2\text{SO}_4 \cdot \frac{6,022 \cdot 10^{23} \text{ moléculas}}{\text{mol}} = 1,84 \cdot 10^{24} \text{ moléculas de H}_2\text{SO}_4 \rightarrow \begin{cases} 3,69 \cdot 10^{24} \text{ átomos de H} \\ 1,84 \cdot 10^{24} \text{ átomos de S} \\ 7,37 \cdot 10^{24} \text{ átomos de O} \end{cases}$$

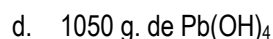
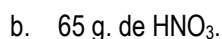
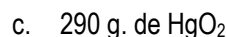
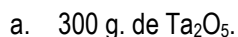
1. Calcula la **masa molecular** de los siguientes compuestos:



2. Calcula el **número de moles** que hay en:



3. Calcula las **moléculas y átomos de cada elemento** que hay en: (utiliza los cálculos del ejercicio anterior).



4. Calcula los **gramos** que hay en:



5. Calcula la masa de...

