

# MOLALIDAD

1) Calcular la molaridad de una disolución de 95 gramos de ácido nítrico en 25 gramos de agua.

$$\begin{aligned} \text{masa} &= 95 \text{ g} \\ \text{Volumen} &= 0,025 \\ \text{Pm} &= 63 \end{aligned}$$

$$\begin{aligned} \text{H} &= 1 \times 1 = 1 \\ \text{N} &= 1 \times 14 = 14 \\ \text{O} &= 3 \times 16 = 48 \\ &= 63 \end{aligned}$$

$$M = \frac{95}{63 \times 0,025} = \frac{95}{1,575} = 60,37$$

$$\frac{95 \text{ g}}{63 \text{ g/mol}} = 150,7 \text{ moles}$$

$$\frac{150,7}{0,025} = 60,317$$

2) Calcular la molaridad de  $\text{CH}_3\text{OH}$  en  $\text{H}_2\text{O}$  en 50 g de disolución y el disolvente es  $\text{H}_2\text{O}$

$$\begin{aligned} \text{masa} &= 15\text{g} \\ \text{volumen} &= 0,05 \\ \text{PM} &= 32 \end{aligned}$$

$$\begin{aligned} \text{C} &= 1 \times 12 = 12 \\ \text{H} &= 3 \times 1 = 3 \\ \text{O} &= 1 \times 16 = 16 \\ \text{H} &= 1 \times 1 = 1 \\ \hline &= 32 \end{aligned}$$

$$\frac{15}{(32)(0,05)} = \frac{15}{16} = \boxed{9,375 \text{ mol/l}}$$

$$\frac{15\text{g}}{32\text{g}} = 0,468 \text{ mol/g}$$

$$\frac{0,468}{0,05} = \boxed{9,375 \text{ M}}$$