

# Concentração de solução

## Lista zero, zero dúvidas

2)  
e)

$$\begin{array}{l} \text{st} \\ 2 \text{ Kg} \\ \times \end{array} \times \begin{array}{l} \text{ss} \\ 10^6 \text{ Kg} \\ 2 \text{ Kg} \end{array} \quad x = 4 \cdot 10^{-6} \text{ Kg} \\ \text{ou} \\ 4 \cdot 10^{-3} \text{ g}$$

f)

$$\begin{array}{l} \text{st} \\ 39 \text{ ml} \\ \times \end{array} \times \begin{array}{l} \text{ss} \\ 100 \text{ ml} \\ 300 \text{ ml} \end{array} \quad x = 117 \text{ ml}$$

g)

$$\begin{array}{l} \text{st} \\ 0,9 \text{ g} \\ \times \end{array} \times \begin{array}{l} \text{ss} \\ 100 \text{ ml} \\ 2000 \text{ ml} \end{array} \quad x = 18 \text{ g}$$

3)  
a)

$$\begin{array}{l} 1 \text{ mol} \\ 2 \text{ mol} \\ \times \end{array} \times \begin{array}{l} 81 \text{ g} \\ x \end{array} \quad x = 162 \text{ g/L}$$

b)

$$\begin{array}{l} 1 \text{ mol} \\ x \end{array} \times \begin{array}{l} 84 \text{ g} \\ 48 \text{ g} \end{array} \quad x = 0,57 \text{ mol/L}$$

c)

$$\begin{array}{l} \text{st} \\ 2 \\ \times \end{array} \times \begin{array}{l} \text{ss} \\ 10^6 \\ 100 \end{array} \quad x = 2 \cdot 10^{-4} \%$$

d)  
calcule a massa de 1L

$$\begin{array}{l} 2 \text{ g} \\ x \end{array} \times \begin{array}{l} 1 \text{ ml} \\ 1000 \end{array} \quad x = 2000 \text{ g}$$

$$\begin{array}{l} \text{st} \\ 3 \text{ g} \\ \times \end{array} \times \begin{array}{l} \text{ss} \\ 2000 \text{ g (1L)} \\ 100 \end{array} \quad x = 0,15\%$$

e)

$$\begin{array}{l} 1 \text{ mol} \\ x \end{array} \times \begin{array}{l} 34 \text{ g} \\ 56 \text{ g} \end{array} \quad x = 1,64 \text{ mol/L}$$

# CONCENTRAÇÃO DE SOLUÇÃO

## Lista zero, zero dúvidas

1)

a)

$$\begin{array}{l} \text{st} \quad \quad \text{sc} \\ 39\text{g} \quad \times \quad 200\text{ml} \\ \times \quad \quad \quad 1000\text{ml} \end{array}$$

$$x = 195\text{g/L}$$

b)

$$\begin{array}{l} \text{st} \quad \quad \text{sc} \\ 2\text{mol} \quad \times \quad 5\text{L} \\ \times \quad \quad \quad 1\text{L} \end{array}$$

$$x = 0,4\text{mol/L}$$

c)

$$\begin{array}{l} \text{st} \quad \quad \text{sc} \\ 20\text{g} \quad \times \quad 200\text{g} \\ \times \quad \quad \quad 100\text{g} \end{array}$$

$$x = 10\% \text{ (m/m)}$$

d)

$$\begin{array}{l} \text{st} \quad \quad \text{sc} \\ 3\text{mols} \quad \times \quad 300\text{ml} \\ \times \quad \quad \quad 1000\text{ml} \end{array}$$

$$x = 10\text{mol/L}$$

$$\begin{array}{l} \text{st} \quad \quad \text{sc} \\ 1\text{mol} \quad \times \quad 34\text{g} \\ \times \quad \quad \quad 10 \end{array}$$

$$x = 340\text{g/L}$$

e)

$$\begin{array}{l} \text{st} \quad \quad \text{sc} \\ 2\text{g} \quad \times \quad 2500\text{g} \\ \times \quad \quad \quad 10^6\text{g} \end{array}$$

$$x = 800\text{ppm}$$

f)

calcular o volume de etanol

$$\begin{array}{l} \text{st} \quad \quad \text{sc} \\ 1\text{ml} \quad \times \quad 0,8\text{g} \\ \times \quad \quad \quad 50\text{g} \end{array}$$

$$x = 62,5\text{ml de etanol}$$

$$\begin{array}{l} \text{st} \quad \quad \text{sc} \\ 62,5\text{ml} \quad \times \quad 300\text{ml} \\ \times \quad \quad \quad 100\text{ml} \end{array}$$

$$x = 20,83\% \text{ (v/v)}$$

2)

a)

$$\begin{array}{l} \text{st} \quad \quad \text{sc} \\ 20\text{g} \quad \times \quad 1\text{L} \\ \times \quad \quad \quad 30\text{g} \quad \quad \quad x \end{array} \quad x = 1,5\text{L}$$

b)

$$\begin{array}{l} \text{st} \quad \quad \text{sc} \\ 2\text{g} \quad \times \quad 1\text{L} \\ \times \quad \quad \quad 0,2\text{L} \end{array} \quad x = 0,4\text{g}$$

c)

$$\begin{array}{l} \text{st} \quad \quad \text{sc} \\ 3\text{mol} \quad \times \quad 1\text{L} \\ \times \quad \quad \quad 0,5\text{L} \end{array} \quad x = 1,5\text{mols}$$

d)

$$\begin{array}{l} \text{st} \quad \quad \text{sc} \\ 1\text{mol} \quad \times \quad 1\text{L} \\ \times \quad \quad \quad 3\text{L} \end{array} \quad x = 3\text{mols}$$

$$\begin{array}{l} \text{st} \quad \quad \text{sc} \\ 1\text{mol} \quad \times \quad 119\text{g} \\ \times \quad \quad \quad 3\text{mols} \quad \quad \quad x \end{array} \quad x = 357\text{g}$$