

Taller

1: Calcular la molalidad de una disolución de 95 gramos de ácido nítrico HNO_3 en 25g de agua

2: Calcular la molalidad de metanol CH_3OH en una disolución 75g donde el disolvente son 50 gramos de agua

Solución

$$1. g = 95$$

$$\text{Agua} = 25\text{g} \div 1000 = 0,025$$

PM

$$\text{H} = 1 \times 1 = 1$$

$$\text{N} = 14 \times 1 = 14$$

$$\text{O} = 16 \times 3 = 48$$

$$63$$

$$m = 60,3$$

$$m = \frac{95}{(63)(0,025)}$$

$$1,575$$

$$m = \frac{95}{1,575} = 60,3 \text{ m}$$

$$gr = 95$$

$$\text{Agua} = 0,025$$

$$\text{PM} = 63$$

$$m = 60,2$$

$$\frac{95}{63} = 1,507$$

$$\frac{1,507}{0,025} = 60,2 \text{ m}$$

2. $g = 15$

$$A_{\text{gua}} = 50 \div 1000 = 0,05$$

PM

$$C = 12 \times 1 = 12$$

$$H = 1 \times 4 = 4$$

$$O = 16 \times 1 = \frac{16}{32}$$

$$m = 0,375$$

$$m = \frac{15}{(32)(0,05)}$$

1,6

$$m = \frac{15}{1,6} = 9,375$$

$$g_r = 15$$

$$A_{\text{gua}} = 0,05$$

$$PM = 32$$

$$m = 0,36$$

$$\frac{15}{32} = 0,468$$

$$\frac{0,468}{0,05} = 9,36 \text{ m}$$