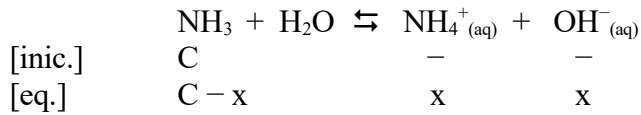


Problema720: Calcula a concentración de amoníaco, NH_3 , que está dissociado un 3%.

Dato $K_b = 1,79 \cdot 10^{-5}$.



$$K_b = \frac{[\text{NH}_4^+] \cdot [\text{OH}^-]}{[\text{NH}_3]} = \frac{x^2}{C - x} = 1,79 \cdot 10^{-5}$$

$$\alpha = \frac{\text{Cant. dissociada}}{\text{Cant. inicial}} \cdot 100 = \frac{x}{C} \cdot 100 = 3\%$$

$$x = \frac{3 \cdot C}{100} = 0,03C$$

Substituímos este valor na expresión da constante.

$$\frac{x^2}{C - x} = \frac{(0,03C)^2}{C - 0,03C} = \frac{9 \cdot 10^{-4} C^2}{C(1 - 0,03)} = \frac{9 \cdot 10^{-4} C}{1 - 0,03} = 9,28 \cdot 10^{-4} \cdot C = 1,79 \cdot 10^{-5}$$

$$C = \frac{1,79 \cdot 10^{-5}}{9,28 \cdot 10^{-4}} = \underline{0,019M}$$