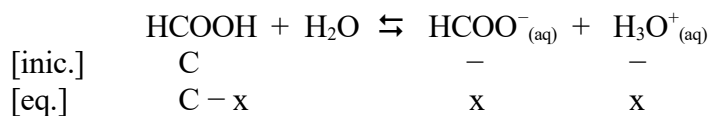


Problema721: Calcula a concentración de ácido metanoico, HCOOH, que está dissociado un 1%.  
Dato  $K_a = 1,77 \cdot 10^{-4}$ .



$$K_a = \frac{[\text{HCOO}^-] \cdot [\text{H}_3\text{O}^+]}{[\text{HCOOH}]} = \frac{x^2}{C - x} = 1,77 \cdot 10^{-4}$$

$$\alpha = \frac{\text{Cant. dissociada}}{\text{Cant. inicial}} \cdot 100 = \frac{x}{C} \cdot 100 = 1\%$$

$$x = \frac{1 \cdot C}{100} = 0,01 C$$

Substituimos este valor na expresión da constante.

$$\frac{x^2}{C - x} = \frac{(0,01 C)^2}{C - 0,01 C} = \frac{1 \cdot 10^{-4} C^2}{C(1 - 0,01)} = \frac{1 \cdot 10^{-4} C}{1 - 0,01} = 1,01 \cdot 10^{-4} \cdot C = 1,77 \cdot 10^{-4}$$

$$C = \frac{1,77 \cdot 10^{-4}}{1,01 \cdot 10^{-4}} = 1,75 M$$