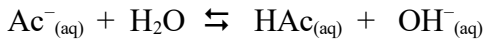


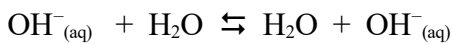
Problema724: Calcula a constante de basicidade do ión Ac^- , do ión OH^- e do ión HCO_3^- . Utiliza os datos das Táboas de Química.

Buscamos as constantes de acidez dos ácidos nas Táboas de química.

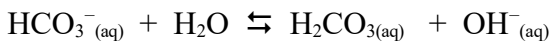


$$K_b = \frac{[\text{HAc}] \cdot [\text{OH}^-]}{[\text{Ac}^-]} = \frac{[\text{HAc}] \cdot [\text{OH}^-] \cdot [\text{H}_3\text{O}^+]}{[\text{Ac}^-] \cdot [\text{H}_3\text{O}^+]} = \frac{K_w}{K_a} = \frac{1 \cdot 10^{-14}}{1,8 \cdot 10^{-5}} = 5,56 \cdot 10^{-10}$$

Tamén podes usar directamente a fórmula: $K_a \cdot K_b = K_w$



$$K_b = \frac{[\text{H}_2\text{O}] \cdot [\text{OH}^-]}{[\text{OH}^-]} = [\text{H}_2\text{O}] = \frac{n}{M_m \cdot V} = \frac{1000 \text{ g}}{18 \text{ g/mol} \cdot 1 \text{ L}} = 55,6$$



$$K_b = \frac{[\text{H}_2\text{CO}_3] \cdot [\text{OH}^-]}{[\text{HCO}_3^-]} = \frac{[\text{H}_2\text{CO}_3] \cdot [\text{OH}^-] \cdot [\text{H}_3\text{O}^+]}{[\text{HCO}_3^-] \cdot [\text{H}_3\text{O}^+]} = \frac{K_w}{K_a} = \frac{1 \cdot 10^{-14}}{4,3 \cdot 10^{-7}} = 2,33 \cdot 10^{-8}$$

Tamén podes usar directamente a fórmula: $K_a \cdot K_b = K_w$