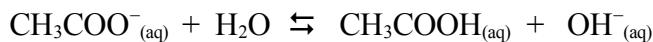


## PROBLEMAS DE QUÍMICA

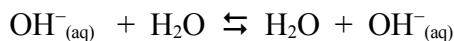


### ÁCIDOS Y BASES

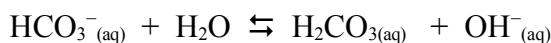
Problema 609: Calcula la constante de basicidad del ión  $\text{Ac}^-$ , del ión  $\text{OH}^-$  y del ión  $\text{HCO}_3^-$ .



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



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



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