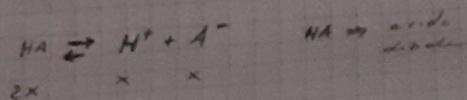


Esercizio, (2)

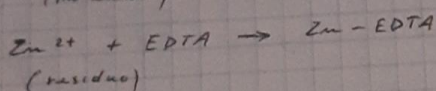
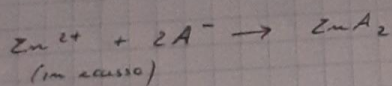


$$[H^+] = \sqrt{K_a \cdot C_a}$$

$$m\text{-}g \text{ ZnSO}_4 = \frac{N \cdot \text{ml}}{1000} = \frac{0,1 \cdot 10 \text{ ml}}{1000} = 1 \times 10^{-3} \text{ g}$$

$$m\text{-}g \text{ EDTA} = \frac{N \cdot \text{ml}}{1000} = \frac{0,01 \cdot 36 \text{ ml}}{1000} = 3,6 \times 10^{-4} \text{ g}$$

(Titolazione di Anioni)



$$\begin{aligned} m\text{-}g A^- &= m\text{-}g \text{ ZnSO}_4 - m\text{-}g \text{ EDTA} = 1 \times 10^{-3} \text{ g} - 3,6 \times 10^{-4} \text{ g} = \\ &= 6,4 \times 10^{-4} \text{ g} = x \end{aligned}$$

$$m\text{-}g \text{ HA} = 2 \cdot x = 2 \cdot 6,4 \times 10^{-4} = 1,28 \times 10^{-3} \text{ g}$$

$$[HA] = C_a = \frac{m\text{-}g \text{ HA}}{V} = \frac{1,28 \times 10^{-3} \text{ g}}{0,025 \text{ L}} = 0,0512 \text{ N}$$

$$[H^+] = \sqrt{K_a \cdot C_a} = \sqrt{4 \times 10^{-10} \cdot 0,0512} = 4,525 \times 10^{-6}$$

$$pH = \boxed{5,34}$$