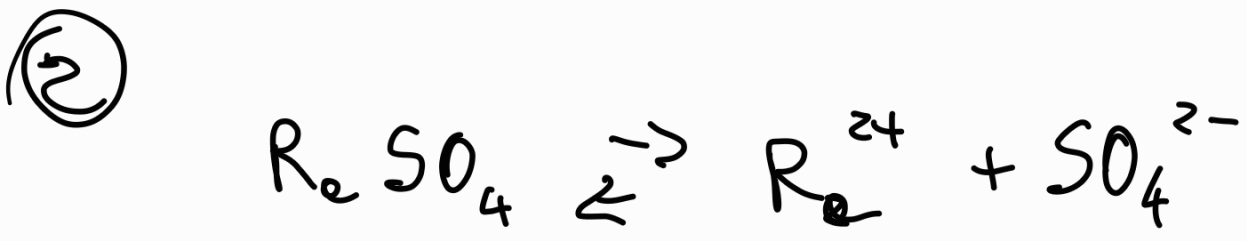


$$(1) \quad K_{PS} = [Te^+] [Br^-]$$

$$[Te^+] = [Br^-] = 1.9 \cdot 10^{-3} \text{ M}$$

$$K_{PS} = (1.9 \cdot 10^{-3})^2 = 3.61 \cdot 10^{-6}$$



$$e) \quad K_{PS} = 4.2 \cdot 10^{-11} = s^2 = [Re^{2+}] [SO_4^{2-}]$$

$$s = \sqrt{K_{PS}} = 6.5 \cdot 10^{-6} \text{ mol/L}$$

$$\begin{aligned} M_{ReSO_4} &= \text{MOLI CHE METTO IN ACQUA} \\ &= \frac{25 \cdot 10^{-3}}{322.06} = 7.8 \cdot 10^{-5} \text{ moli} \end{aligned}$$

$$M_{ReSO_4} = \text{MOLI CHE SOLUBILIZZANO}$$

$$\geq 6.5 \cdot 10^{-6} \cdot 100 \cdot 10^{-3}$$

$$= 6.5 \cdot 10^{-7} \text{ moli}$$

HO MESSO PIÙ MOLIE DI QUELLE
CHE SOLUBILIZZANO QUINDI LA RISPOSTA
È NO

SI PUÒ ANCHE CALCOLARE Q E
CONFRONTARE CON K_{PS}

b) SI SCIOLGONO $6.5 \cdot 10^{-7}$ MOLIE

$$\text{QUINDI } 6.5 \cdot 10^{-7} \cdot 322.06 = 0.21 \text{ mg}$$

$$Q = (6.5 \cdot 10^{-7})^2 = 6.084 \cdot 10^{-9}$$

$$Q > K_{PS}$$



③ $K_{PS} = 1.0 \cdot 10^{-12}$ di $AgSCN$



$$S = \sqrt{K_{PS}} = \underline{\underline{1.0 \cdot 10^{-6} \text{ mol/L}}}$$

SOLUBILITA' IN H_2O PURA

Se ho $NaSCN$ ALLORA

$$[SCN^-] = 0.010 M$$

QUINDI:

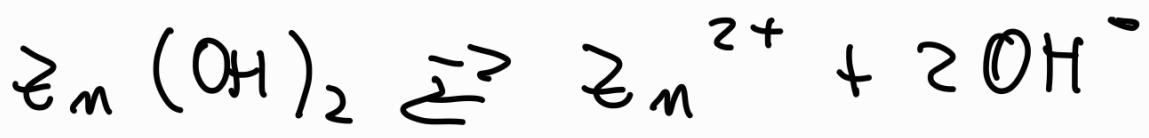
$$[Ag^+] [SCN^-] = 1.0 \cdot 10^{-12}$$

$$[Ag^+] = S = \frac{1.0 \cdot 10^{-12}}{0.01} =$$

$$\underline{\underline{= 1.0 \cdot 10^{-11} M}}$$

OVVIAMENTE INFERIORE CHE IN
 H_2O PURA

④ $K_B = 3.0 \cdot 10^{-17}$ di $Zn(OH)_2$



$$[Zn^{2+}] = 1.63 \cdot 10^{-4} M$$

$$M_{NaOH} = \frac{4 \cdot 10^{-3}}{40} = 1 \cdot 10^{-4} mol/l$$

$$[OH^-] = \frac{1 \cdot 10^{-4}}{10 \cdot 10^{-3}} = 0.01 M$$

$$Q_{Zn(OH)_2} = 1.63 \cdot 10^{-4} \cdot (0.01)^2$$
$$= 1.63 \cdot 10^{-8}$$

$Q > K_{ps}$ QUINDI PRECIPITA

$$\textcircled{5} \quad K_{ps} = [Mg^{2+}] [OH^-]^2$$

$$= 5.6 \cdot 10^{-12}$$

QUINDI :

$$[OH^-] = \sqrt{K_{ps} / [Mg^{2+}]}$$

$$[Mg^{2+}] = 1350 \text{ mg/L}$$

DA CUI :

$$[Mg^{2+}] = \frac{1.350}{24.3} = 0.056 \text{ M}$$

$$[OH^-] = \sqrt{K_{ps} / 0.056}$$

$$= \underline{1.0 \cdot 10^{-5} \text{ M}}$$

