

Answer on Question #78396 - Chemistry - Physical Chemistry

Question:

Estimate the concentration of Cadmium (II) ions over the sediment CdCO_3 , $K_s=1.0 \cdot 10^{-12}$ M². 10.
The stability constant of the complex of {1-Methyl-2-[5-(5-methyl-isoxazole-3-yl-amino)

Solution:

$$K_s = [\text{Cd}^{+2}] \cdot [\text{CO}_3^{-2}]$$

$$K_s = x \cdot x = x^2;$$

$$[\text{Cd}^{+2}] = \sqrt{K_s} = \sqrt{1.0 \cdot 10^{-12}} = 1.0 \cdot 10^{-6} \text{ M.}$$

Answer: $1.0 \cdot 10^{-6}$ M.

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