

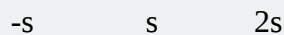
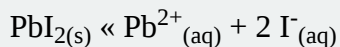
20.3 Finding K_{sp} from Ion Concentrations (Video)

This project was preformed to supply **Libretext Authors** with videos on General Chemistry topics which can be used to enhance their projects. Also, these videos are meant to act as a learning resource for **all General Chemistry students**.

Video Topics

If this concentration of an insoluble salt's ions in a saturated solution is know, the K_{sp} of the salt can be calculated.

A saturated solution of PbI_{2(s)} was shown to have a {I⁻} = 2.4 x 10⁻³ M. What is K_{sp} for PbI_{2(s)}?



$$\{\text{I}^{-}\} = 2s = 2.4 \times 10^{-3} \text{ M}$$

$$\{\text{I}^{-}\}/2 = s$$

$$s = 1.2 \times 10^{-3} \text{ M}$$

$$K_{sp} = \{\text{Pb}^{2+}\} \{\text{I}^{-}\}^2 = (s)(2s)^2$$

$$K_{sp} = 4s^3 = 4(1.2 \times 10^{-3})^3$$

$$K_{sp} = 6.9 \times 10^{-9}$$

Link to Video

Finding K_{sp} from Ion Concentrations: <https://youtu.be/a8nhlJk8UX0>



Attribution

- Prof. Steven Farmer ([Sonoma State University](#))

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