

K_{sp} for $\text{Ca}_3(\text{PO}_4)_2$ is $K_{sp} = [\text{Ca}^{2+}]^3 [\text{PO}_4^{3-}]^2$ } iClicker Quiz
Net ionic equation only involves the precipitate.

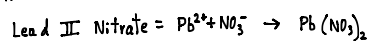
See slides and worksheet for reference

When a precipitate forms, some ions of the precipitate are still in solution

Group IA, NH_4^+ , and NO_3^- are soluble

Most everything else is insoluble

The concentration of the reactants matters.



See slide notes for the difference between formula equations, total ionic equations, and net ionic equations

$K_{sp} = [\text{Pb}^{2+}][\text{I}^-]^2$ does not mean $4x^3$ all the time

When the source is the same, then it's $4x^3$.

Common Ion Effect

If you add insoluble PbI_2 to a KI solution, the $[\text{I}^-]$ won't change appreciably. $[\text{Pb}^{2+}]$ will be very small.

K_{sp} : At equilibrium

Q_{sp} : Now

If

$Q_{sp} > K_{sp}$ then precipitate will form

$Q_{sp} < K_{sp}$ then no precipitation will occur.

When mixing, change volume accordingly

Q_{sp} : only precipitate matters.