

# AP Chemistry Daily Videos

## 7.12 Common-Ion Effect

### Video #1

1. Why is it called the "Common-Ion" Effect?
2. How does Le Chatelier's Principle help you understand why a common-ion in solution decreases a substance's solubility? Use can use words and/or pictures to answer.
3. Evaluate your work and write down any errors you may have made.

The solubility product for magnesium fluoride is

$$K_{sp} = [Mg^{2+}][F^{-}]^2$$

- (a) Write the balanced equation showing the dissolution of  $MgF_2$
- (b) Calculate the solubility of  $MgF_2$  in 2.00 L of pure water.  $K_{sp} = 3.3 \times 10^{-8}$
- (c) 2.52 grams of NaF is added to the saturated solution.
  - (i) Calculate the molarity of  $F^{-}$  in the solution
  - (ii) Calculate the solubility after the addition of the NaF.