


AP Chemistry Daily Videos

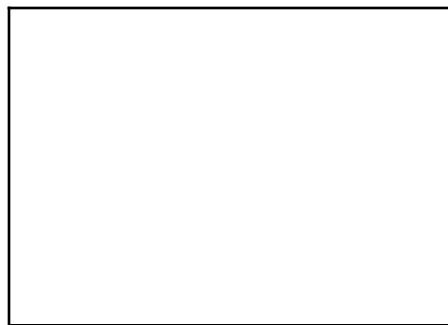
4.2 Net Ionic Equations

Daily Video #1

1. Give an example of a balanced equation for the melting of ice
2. How does a balance equation demonstrate the law of conservation of mass?
3. Write the balanced equation for the formation of water.
4. Pause the video at 4:00 and attempt the problem, then evaluate how you did and identify any errors.

Answer the following questions about the solubility of $\text{Ca}(\text{OH})_2$.

1. Write a balanced chemical equation for the dissolution of $\text{Ca}(\text{OH})_2(\text{s})$ in pure water.
2. In the box below, complete a particle representation diagram that includes four water molecules with proper orientation around the Ca^{2+} ion. Represent water molecules as .



5. What are the takeaways?

Daily Video #2

1. What are the features of balanced molecular equations, complete ionic equations, and net ionic equations?
2. Pause the video at 4:00 and attempt the problem, then evaluate how you did and identify any errors.

The color of AgI(s), a salt of silver, is yellow. A student adds a solution of NaI to a test tube containing a small amount of solid, cream-colored AgBr. After stirring the contents of the test tube, the student observes that the solid in the test tube changes color from cream to yellow.

Write the net ionic equation for the reaction that occurred in the test tube.

3. Pause the video at 5:28 and attempt the problem, then evaluate how you did and identify any errors.

A student learns that ionic compounds have significant covalent character when a cation has a polarizing effect on a large anion. As a result, the student hypothesizes that salts composed of small cations and large anions should have relatively low melting points.

Select two compounds from the table and explain how the data support the student's hypothesis.

When fluoride compounds are dissolved in water, hydroxide ions are produced. Write the net ionic equation for the reaction that occurs when one of the fluorides in the table is combined with water. (Hint: HF doesn't dissociate appreciably in water.)

Compound	Melting Point (°C)
LiI	449
KI	686
LiF	845
NaF	993