**Ionic Dissociation and Ksp (the equilibrium constant for a saturated soln)**

A Saturated Soln is an equilibrium situation.

 

* Even though it is an open beaker the equilibrium is between the solid at the bottom and the dissolved particles in solution.
* The rate of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is equal to the rate of

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

We will be dealing only with ionic compounds (salts or bases) dissolved in solution.

Ionic compounds not only \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ they \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Write the dissociation equations for the following salts:

BaCl2(s) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Cu(NO3)2(s) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(NH4)3PO4(s) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The **solubility product constant** is called the **Ksp**.

It is the Keq or Kc for a specific instance i.e. a saturated solution of an ionic compound.

It indicates **the max concentrations of ions** that can be present in solution before a residue forms (or a ppt—more on this later).



Recall how to write equilibrium expressions—what is included and what is not for a Kc or Keq!

Write the Ksp for the 3 previous salts:

Ksp for barium chloride:

Ksp for copper (II) nitrate:

Ksp for ammonium phosphate:

1) Watch Crash Course Chemistry 9 Video Precipitation Reactions

2) Watch Golden Rain Video

3) Work on equilibrium packages – you have a test on Thursday April 19th.