

Box 4 Physical States of Matter

Solid: S Gas: g

Liquid: l Aqueous: aq

Net Ionic Equation:

Eliminate Spectator Ions.

Spectator Ions: aqueous ions that appear on both sides.

Steps for a NIE:

1. Write the balanced equation. # states + charges!
2. Write overall ionic equation (split)
3. Delete spectator ions

$l \neq aq$

compound in water's

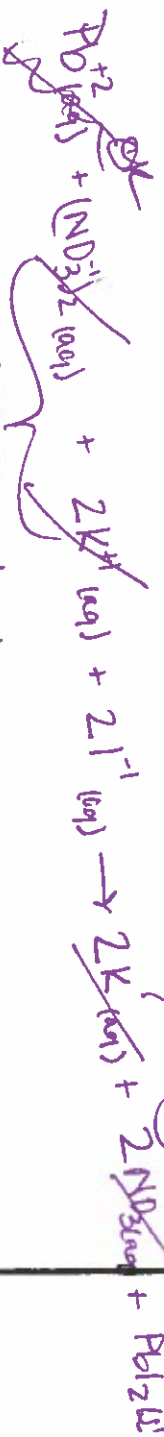
Box 7

A Lead II Nitrate solution is mixed with an aqueous solution of Potassium Iodide.

1. Write the complete equation and balance it. Include all states.



2. Make a complete ionic equation.

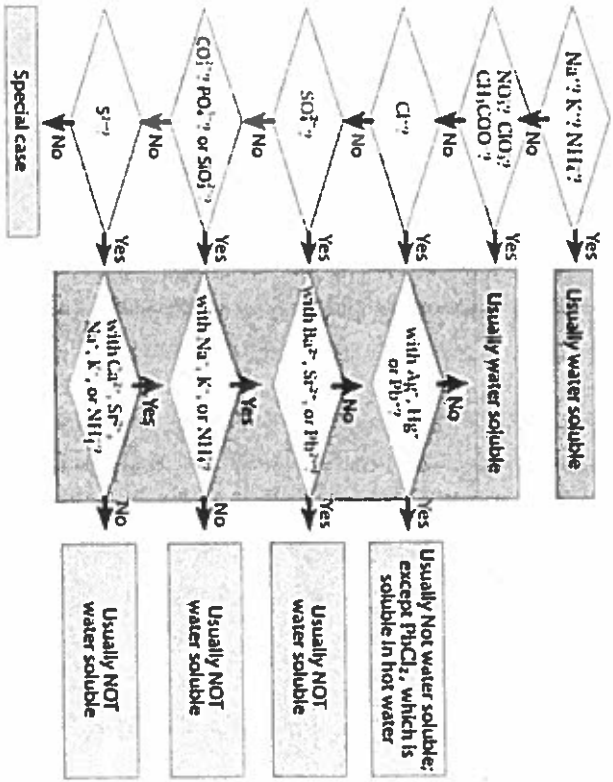


3. Eliminate the spectator ions. Indicate the driving force for the reaction.



Box 4

Solubility Rules



Net Ionic Equations Practice 1

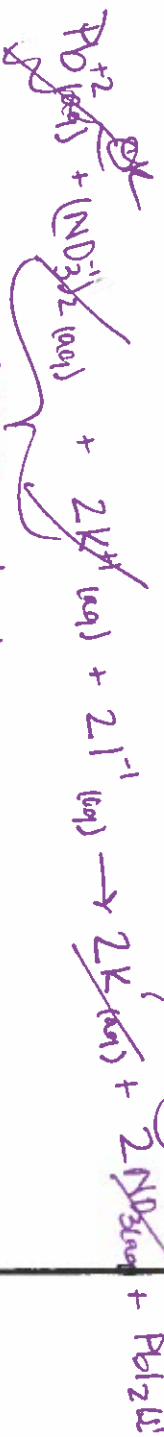
$K^+ I^-$

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Box 6

Use your solubility rules to determine if each of the following compounds will dissolve in water.

- CaCl₂ *yes*
- Ca(OH)₂ *yes*
- Pb(OH)₂ *no*
- AgCl *no*
- NaCl *yes*
- K(NO₃) *yes*
- Ba(SO₄) *no*

Name, Date, Hour:

I Can...

Key Vocabulary:

Driving Forces and Net Ionic Equations

Science Starter:

Practice balancing the following:



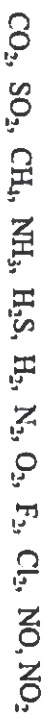
c) solid zinc is added to hydrochloric acid to produce hydrogen gas and aqueous zinc chloride

Box 1 Driving Forces for a Reaction

Main driving forces are:

1. gas
2. precipitate (solids)
3. water

Several common compounds are in the gas phase. You should recognize the following as gases.



Of the BRINCHOF's, I₂ is a solid and Br₂ is a liquid at room temperature.

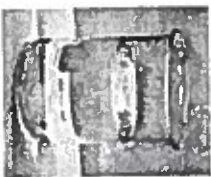
Box 2

Solute: The substance being dissolved (salts, electrolytes)

electrolytes are substances that dissolve in water to form a solution that conducts an electric current. All ionic compounds are electrolytes.

Solvent: The substance doing the dissolving
Solution: The mixture of the solute + solvent

Solute + Solvent → Solution



Box 3 Dissociation

When an ionic substance dissolves in water-it dissociates. The separation process is called "dissociation". This is different than dissolving.

