

4.74b Stock 10M  $\text{HNO}_3$  25ml

↓

— M 0.5 l

Moles start = moles end

$$M \times l = M \times l$$

$$(10)(25\text{ml}) = M(500\text{ml})$$

$$\frac{250}{500} = 0.5\text{M}$$

Oct 8-8:12 AM

Solvation

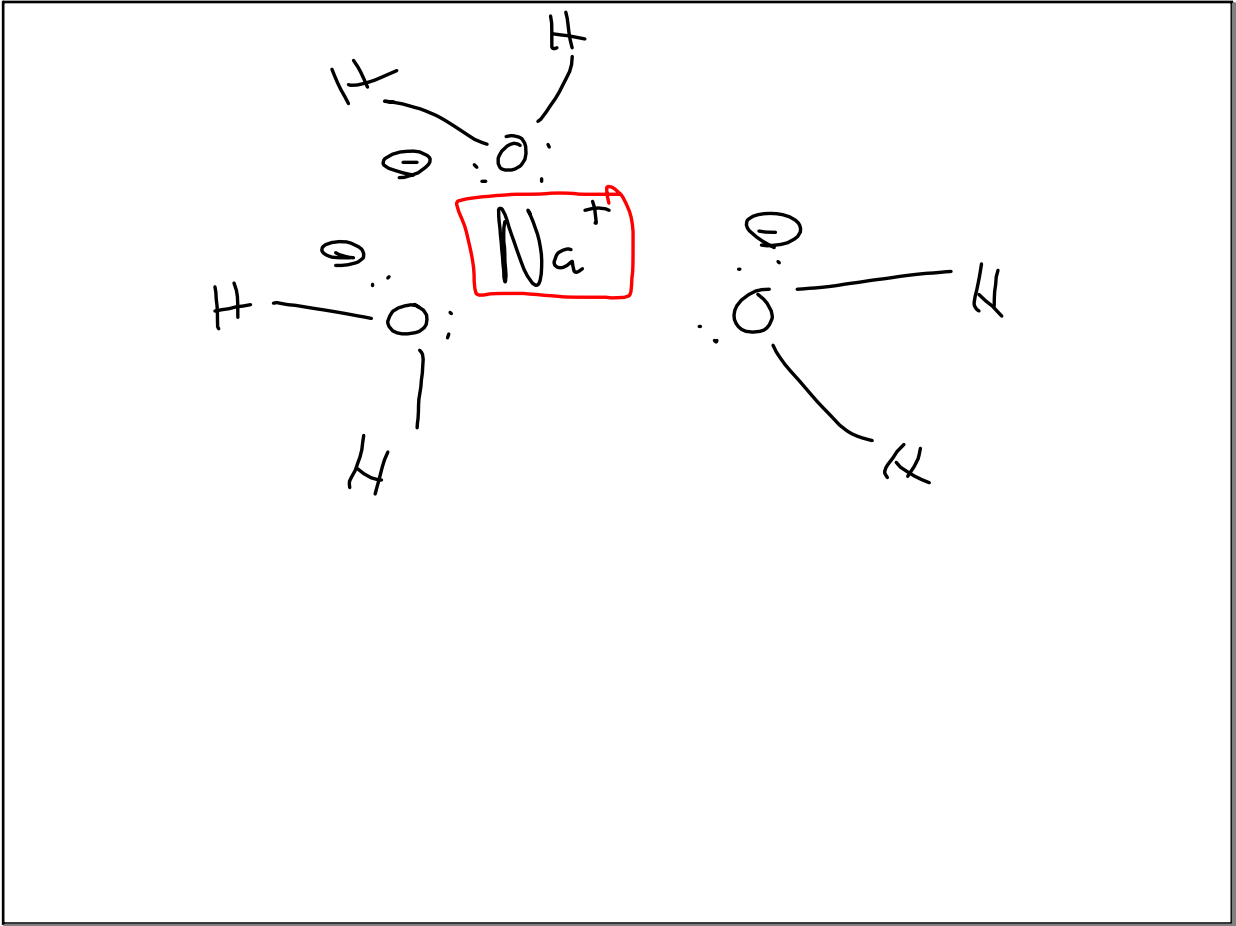
$$\text{NaCl} \rightarrow \text{Na}^+_{(aq)} + \text{Cl}^-_{(aq)}$$

electrolytes

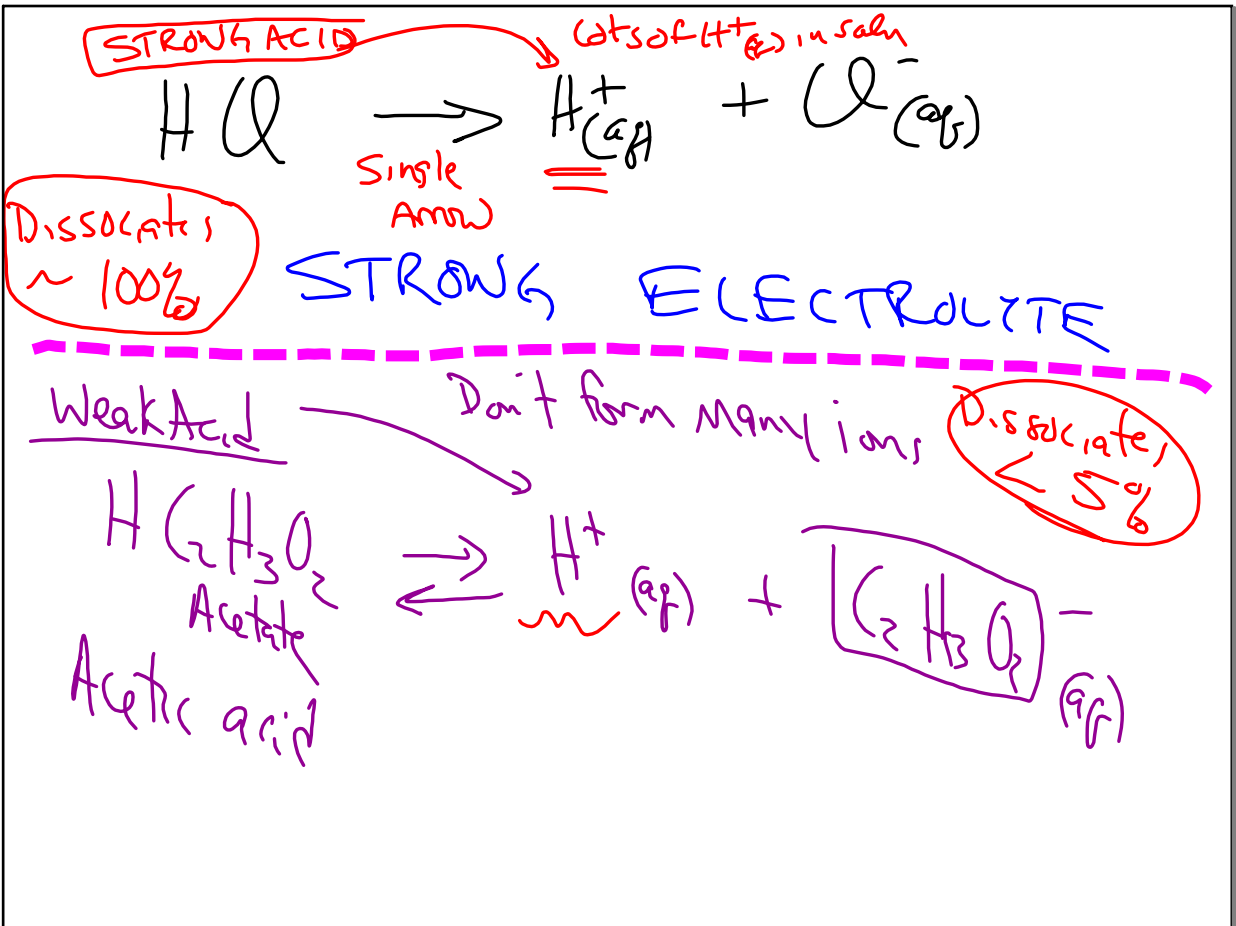
Very Soluble → produce lots of ions  
→ Strong electrolyte.

Sparingly soluble  
Not very soluble → produce a few ions → Weak electrolyte

Oct 8-8:16 AM



Oct 8-8:19 AM



Oct 8-8:20 AM

SA      HCl, HBr, HI  
                   HNO<sub>3</sub>, H<sub>2</sub>SO<sub>4</sub>  
                   HClO<sub>3</sub>, HClO<sub>4</sub> } Dissociate ~ 100%

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SB

OH<sup>-</sup>  
 Anion

Group 1 and 3 in Group 2

Ca, Ba, Sr  
 CBS } Dissociate ~ 100%

Oct 8-8:25 AM

<sup>+1</sup> <sup>-1</sup>      <sup>+2</sup> <sup>-1</sup>      <sup>+1</sup> <sup>-1</sup>      <sup>+2</sup> <sup>-1</sup>

2KI + Pb(NO<sub>3</sub>)<sub>2</sub> → 2KNO<sub>3</sub> + PbI<sub>2</sub>

(aq)      (aq)      (aq)      (s)

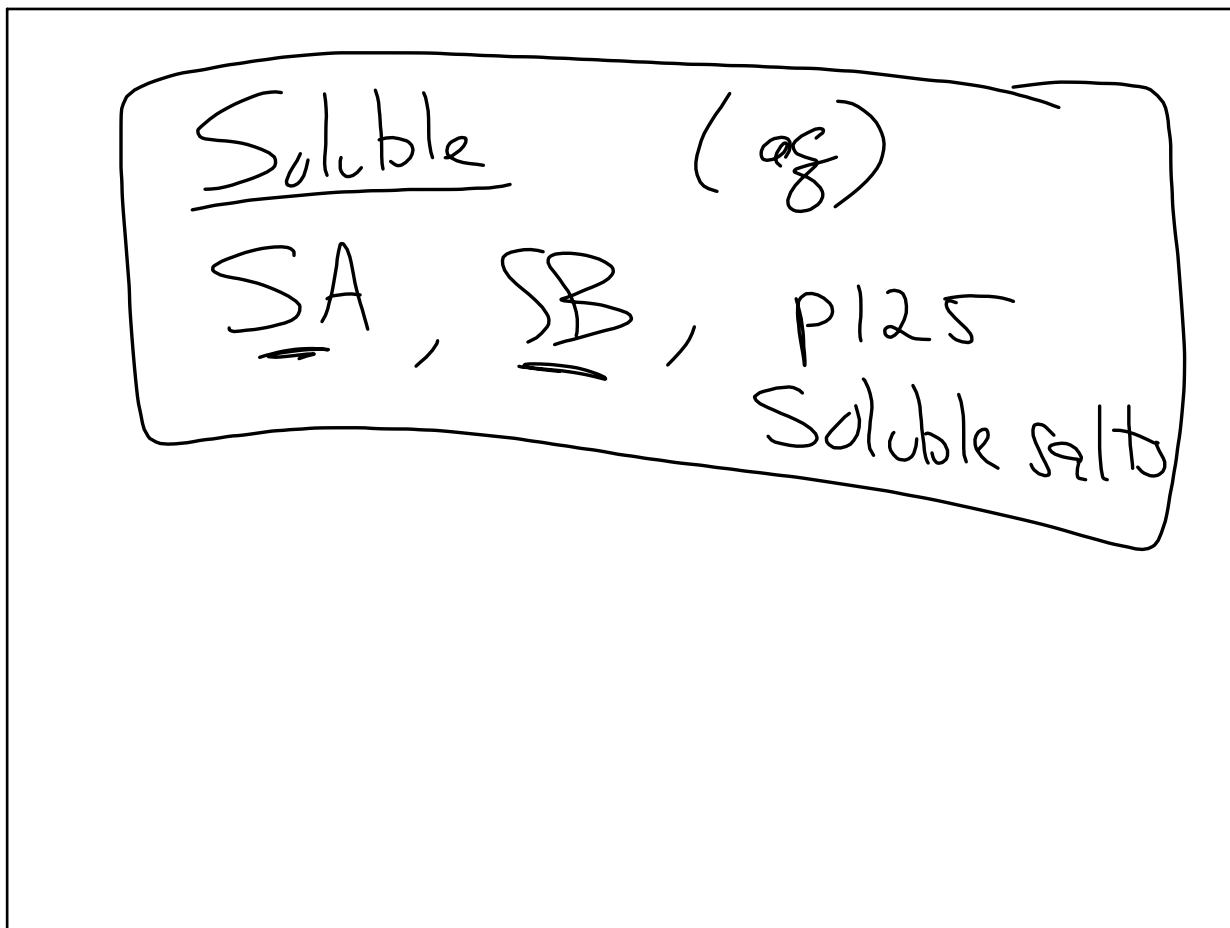
Complete Ionic Eqn

~~2K<sup>+</sup> + 2I<sup>-</sup> + Pb<sup>+2</sup> + 2NO<sub>3</sub><sup>-</sup>~~ → ~~2K<sup>+</sup> + 2NO<sub>3</sub><sup>-</sup>~~ + PbI<sub>2</sub>(s)

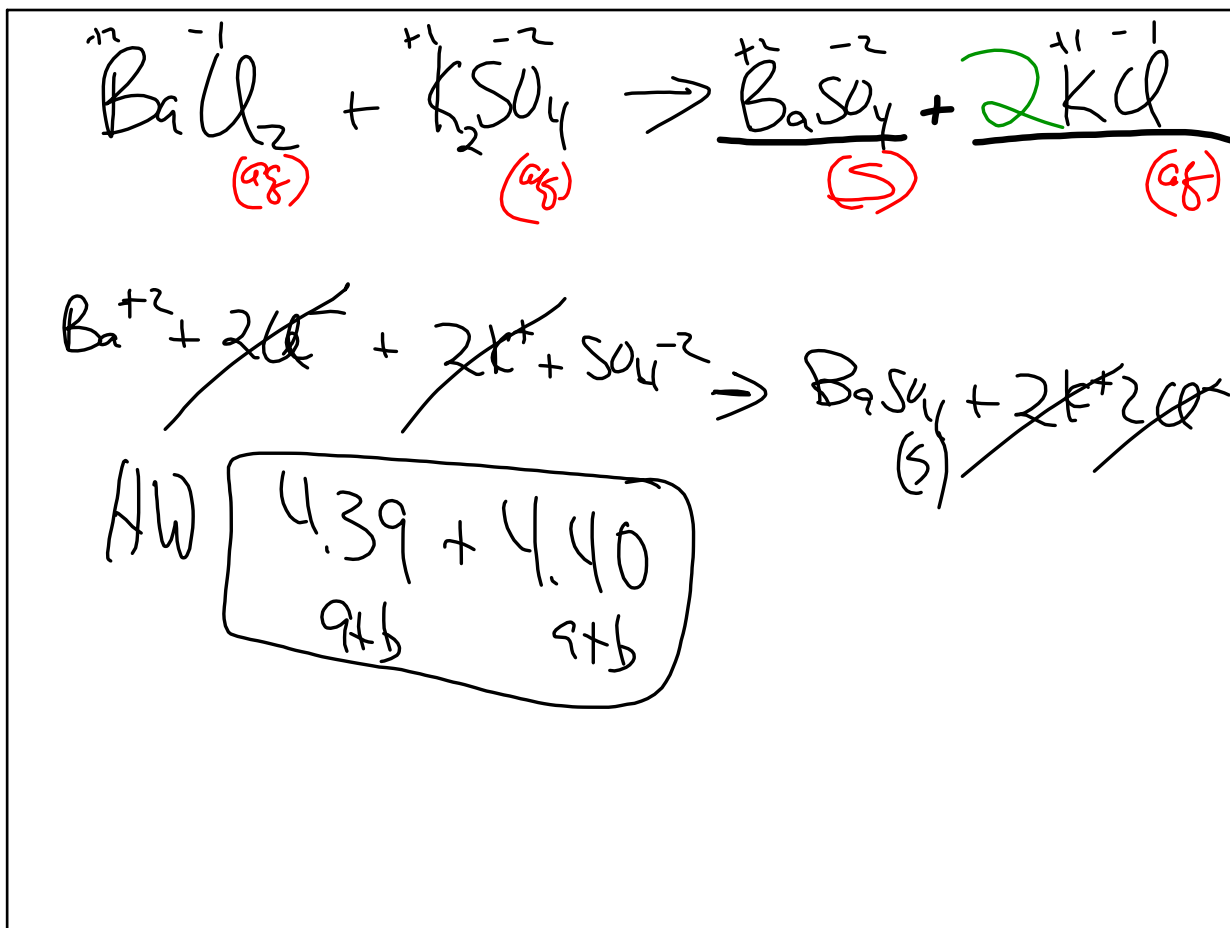
Net Ionic Eqn

Pb<sup>+2</sup> (aq) + 2I<sup>-</sup> (aq) → PbI<sub>2</sub>(s)

Oct 8-8:34 AM



Oct 8-8:41 AM



Oct 8-8:43 AM