

## Acid - Base Properties of salt (Expt)

Reading Table 14.6 (Pg 689)

<u>Type of salt*</u>	<u>Example</u>	<u>Comments</u>	<u>pH of solution</u>
(A) cation : ② anion : ①	Li CO <sub>3</sub>	neither react	no change in pH
(B) cation : ② anion : ③	K F		
	F <sup>-</sup> - act as base (see ③)		
(C) cation : ④ anion : ①	NH <sub>4</sub> NO <sub>3</sub>	N <sub>3</sub> <sup>-</sup> - no effect NH <sub>4</sub> <sup>+</sup> - act as acid (see ④)	acidic
(D) cation : ④ anion : ③	CH <sub>3</sub> NH <sub>3</sub> NO <sub>2</sub>	NO <sub>2</sub> <sup>-</sup> - acts as base (see ③) CH <sub>3</sub> NH <sub>3</sub> <sup>+</sup> - acts as acid (see ④)	pH of solution depends on $K_a$ & $K_a > K_b$ acid $K_b < K_a$ basic
	[See Exercise 14.21 Pg 688]		

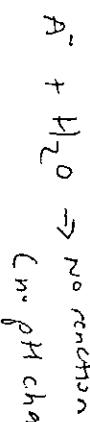
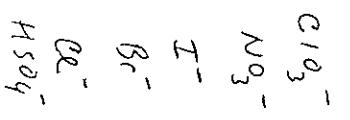
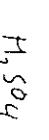
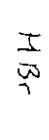
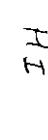
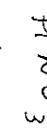
\* Types of ions are going to be referenced via other sheets number system (i.e. anion of strong acid = ①)

## Read section 14.8

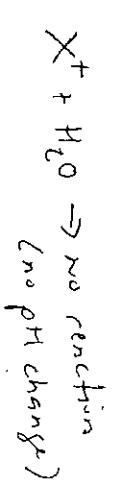
### Acid-Base Property of Salts

corresponding "anion of strong acid"

① strong acid :  $HClO_4$



corresponding "cation of strong base"



② strong base : all Group I & II metals

- LiOH
- NaOH
- KOH
- RbOH
- CsOH
- FrOH
- Mg(OH)<sub>2</sub>
- Ca(OH)<sub>2</sub>
- Sr(OH)<sub>2</sub>
- Ba(OH)<sub>2</sub>
- Ra(OH)<sub>2</sub>

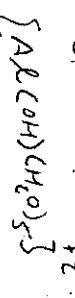
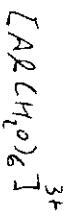
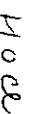
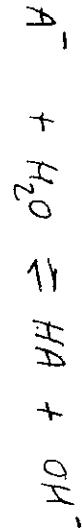
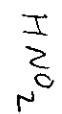
## READ SECTION 14.8

### ACID-BASE PROPERTIES OF SALTS

corresponding "anion (conjugate base) of weak acid"

③ weak acids (e.g.): HF

[not all weak acids  
are listed below]



corresponding "cation (conjugate acid) of weak base"

④ weak bases (e.g.): NH<sub>3</sub> [not strong like Ternid!!!]

[not all weak bases  
are listed below]

