

## Double Replacement Reactions

### Double Replacement Reaction

A chemical reaction where two compounds switch their positive ions creating two new compounds.

### Acid Base Reaction

A double replacement reaction where an acid (HX or HXO<sub>y</sub>) react with a base (YOH) to produce water (H<sub>2</sub>O) and an ionic compound, called a salt.



### DR Reaction



Reactants	Products
AB + CD	AD + CB
Two Compounds	Two Compounds

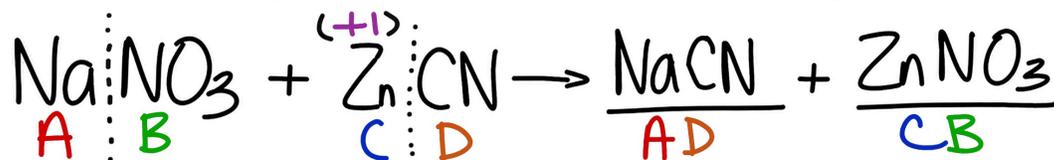
### Acid/Base Reaction



Reactants	Products
Acid + Base	Salt + H <sub>2</sub> O

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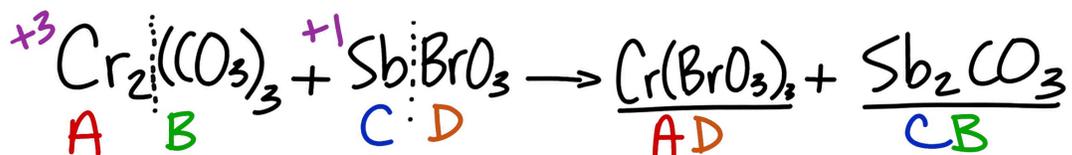
## Double Replace Reaction w/Poly Ions



A: Na +1 (IA)	+1	-1	+1	-1
B: NO <sub>3</sub> -1 (poly ion)	<del>Na</del>	<del>(CN)</del>	<del>Zn</del>	<del>(NO<sub>3</sub>)</del>
C: Zn +1 (trans)	NaCN		ZnNO <sub>3</sub>	
D: CN -1 (poly ion)				

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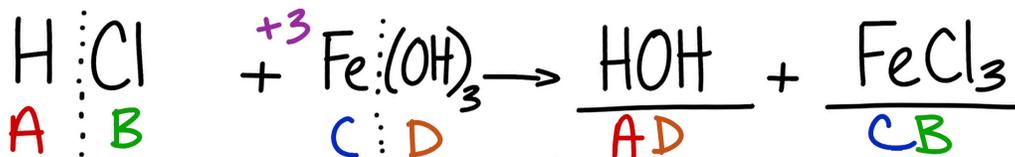
## Double Replace Reaction w/Poly Ions



A: Cr +3 (trans)	+3	-1	+1	-2
B: CO <sub>3</sub> -2 (poly)	<del>Cr(BrO<sub>3</sub>)<sub>3</sub></del>	<del>Sb<sub>2</sub>(CO<sub>3</sub>)<sub>3</sub></del>		
C: Sb +1 (trans)				
D: BrO <sub>3</sub> -1 (poly)	Cr(BrO <sub>3</sub> ) <sub>3</sub>	Sb <sub>2</sub> CO <sub>3</sub>		

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## Acid Base Reaction Example



A: H +1 (IA)	+1	-1	+3	-1
B: Cl -1 (7A)	<del>H(OH)</del>	<del>FeCl</del>		
C: Fe +3 (trans)				
D: OH -1 (poly)	HOH	FeCl <sub>3</sub>		

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