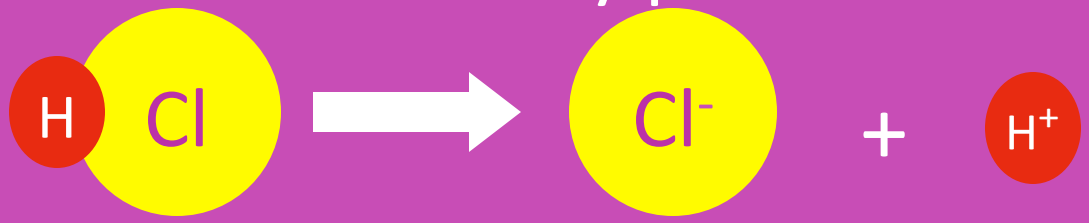
Introduction to Acids and Bases

- Use this Power Point to assist in your completion of the 9.1 Intro sheet!

Arrhenius Acids

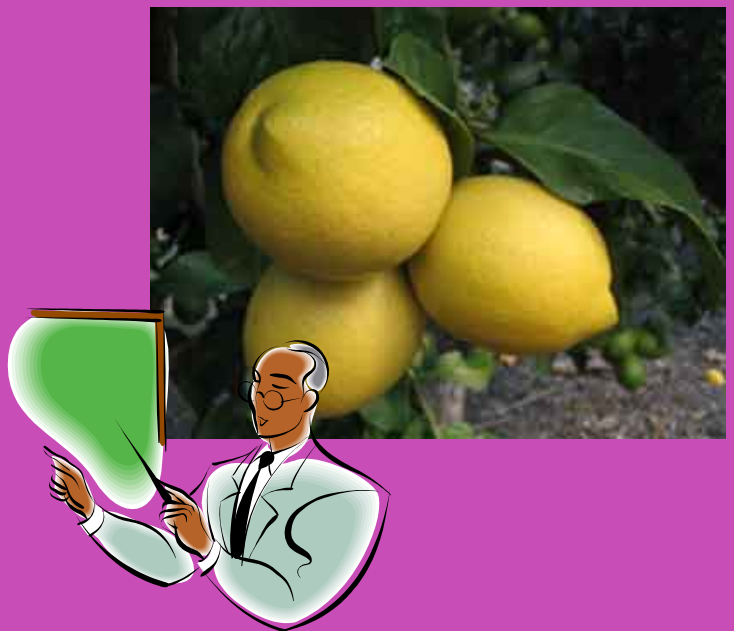
A substance whose water solution contains H^+ as the only positive ion.



$$HCl \rightarrow H^+ + Cl^-$$

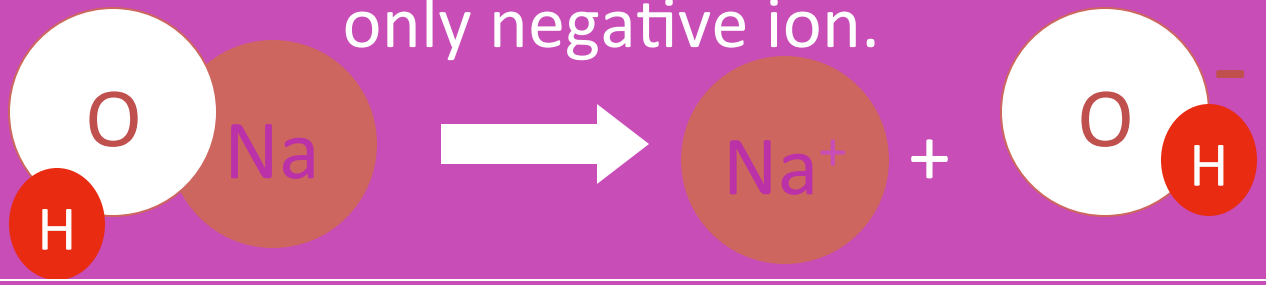
Does that mean that all compounds that contain H are acids?

Nope! CH_4 does not release H^+ in water



Arrhenius Bases

A substance whose water solution contains OH^- as the only negative ion.

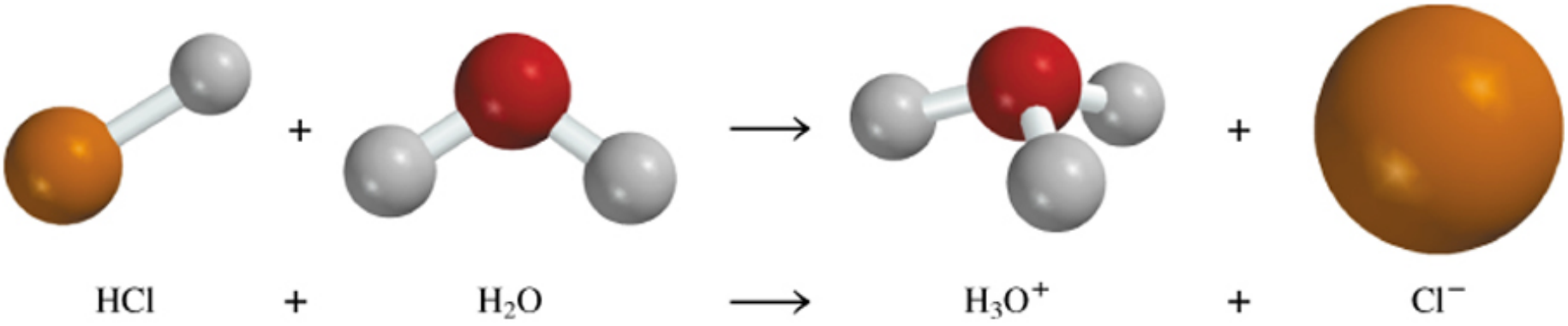


$$NaOH \rightarrow Na^+ + OH^-$$

Are all compounds containing OH's bases?

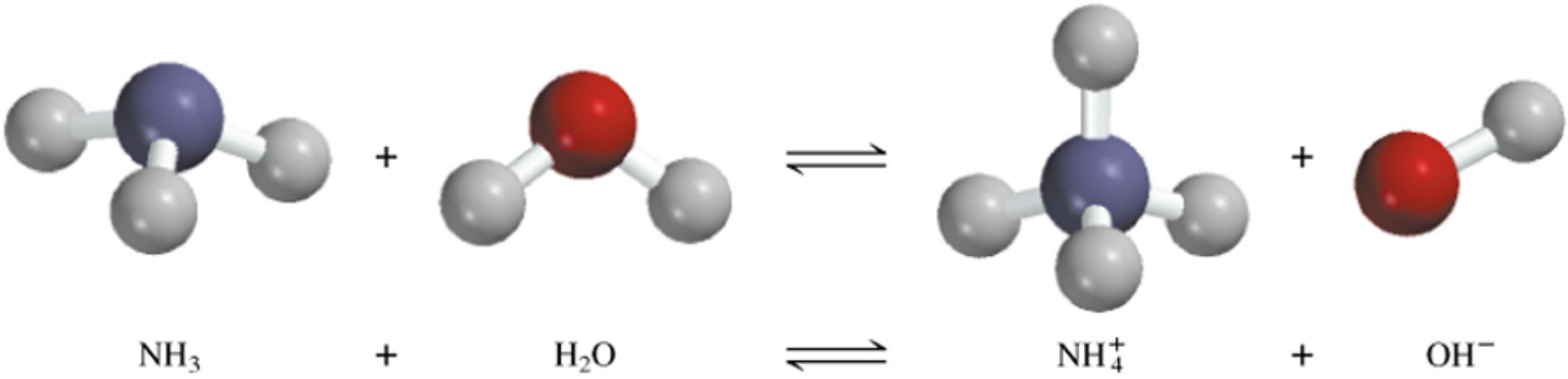
Nope! CH_3OH is not a base.

Arrhenius acid is a substance that produces H^+ (H_3O^+) in water



$HCl + H_2O \longrightarrow H_3O^+ + Cl^-$

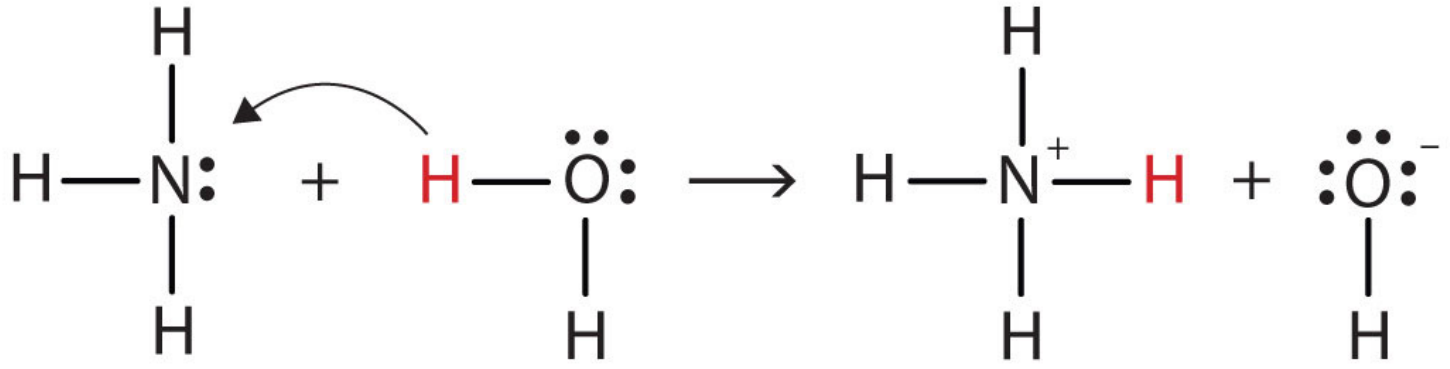
Arrhenius base is a substance that produces OH^- in water



$NH_3 + H_2O \rightleftharpoons NH_4^+ + OH^-$

Bronsted Lowry: Alternate Theory

- Bases: H+ acceptor
- Acids: H+ donor



Hydrogen ion acceptor: B-L base

Hydrogen ion donor: B-L acid

Acid Naming – Table K

	Anion Ending	Acid Name
No Oxygen→	*-ide*	*hydro*-(stem)-*ic acid*
w/Oxygen →	*-ate*	(stem)-*ic acid*
w/Oxygen →	*-ite*	(stem)-*ous acid*

An easy way to remember which goes with which…

"In the cafeteria, you ATE something ICky"

- More questions! Search for answers online!