

H_3O^+ is the strongest acid that can exist in an undissociated form in water solution.

Concentration of ions determines its electrical conductivity.

EXTRA NOTES on the “Relative Strengths” TABLE

STRONG ACIDS – top 6 acids on the LEFT

- _____, _____, _____, _____, _____, and _____
- $H_3O^+ \rightleftharpoons H^+ + H_2O$ is _____
- ClO_4^- to HSO_4^- are _____ of strong acids. They *NEVER* act as bases!

WEAK ACIDS – LEFT side of table from HIO_3 to H_2O

- _____ on the *right*

WEAK BASES – RIGHT side of table from H_2O to PO_4^{3-}

- _____ on the *left*

STRONG BASES – bottom 2 bases on the RIGHT

- _____ and _____
- $H_2O \rightleftharpoons H^+ + OH^-$ is _____
- OH^- and NH_3 are the _____ of strong bases. They *NEVER* act as acids!

Interpreting the AMPHIPROTIC substances on the table

Remember, AMPHIPROTIC substances can act as _____.

- These substances appear on both the _____ and _____ sides of the table.
- Ex: _____, _____, _____, _____, _____, and _____

<i>LEFT</i>	<i>RIGHT</i>
HCO_3^- is a _____ er acid than C_6H_5OH	HCO_3^- is a _____ er base than $C_6H_5O_7^{3-}$
HCO_3^- is a _____ er acid than H_2O_2	HCO_3^- is a _____ er base than $Al(H_2O)_5(OH)^{2+}$

“THE LEVELING EFFECT” for Acids

The “leveling effect”: