

What makes
acid an acid?

strong acid:



weak acid:

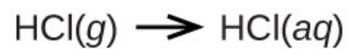
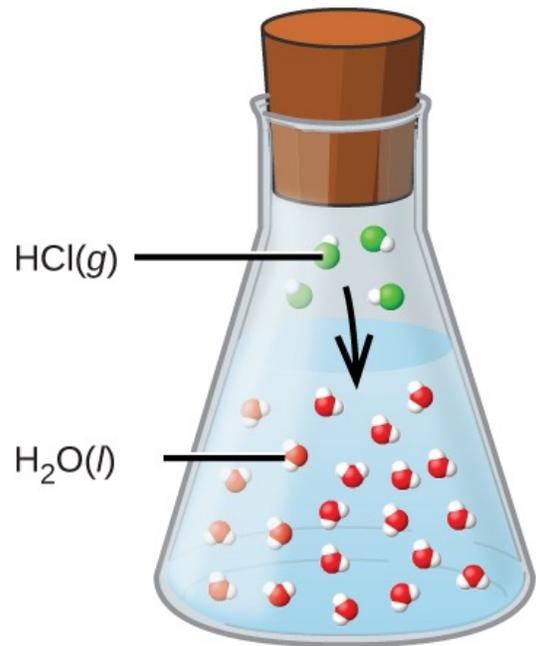


strong base:

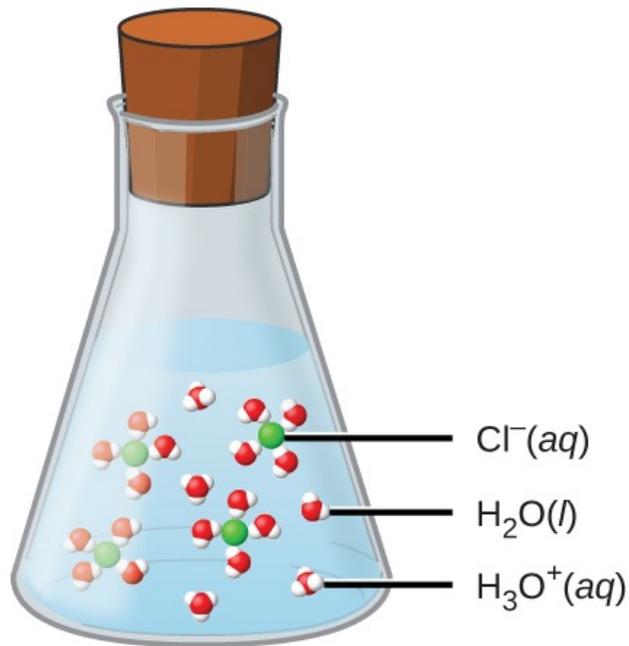


weak base:

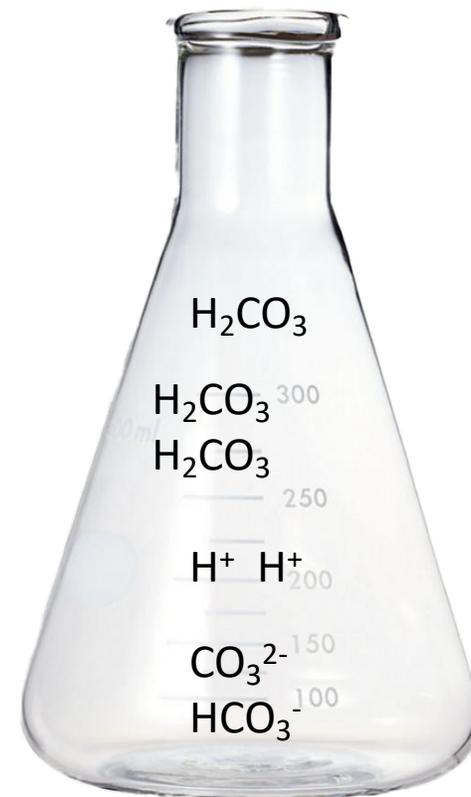




(a)



(b)



HCl - strong acid, carbonic acid (H_2CO_3) - weak acid, the **equilibrium arrow** on the right indicates that the reaction is reversible and does not go to completion.

HCO_3^- is the conjugate base of carbonic acid, CO_3^{2-} is conjugate base of HCO_3^- .



HCl monoprotic acid

H₂SO₄ diprotic acid

H₃PO₄ triprotic acid

Dehydrating properties of concentrated sulfuric acid (H_2SO_4).



<https://youtube.com/shorts/oe4kaM3OxFk?feature=share>



<https://youtu.be/ZOedJgqTT9E>

Properties of acids?

Properties of acids

Almost all acids dissolve in water very well.
They will change the color of indicators:

Name of the indicator	acidic	neutral	basic
litmus	red	violet	blue
phenolphthalein	transparent	pink	Bright pink

Properties of acids

Strong acids will react with a lot of metals.

Products of such reactions?

Properties of acids

Not all acids reacting with metals will produce hydrogen gas.

