CHM 100: How to determine the name of a simple acid

IDENTIFY THE TYPE OF ACID

Acids release hydrogen ions (H^+) when dissolved in water, so look for a hydrogen atom as the first element of the compound.

Binary acids contain *hydrogen combined with one other element*, typically a group VIIA element.

Oxoacids contain *hydrogen combined with a polyatomic ion*. They are put together as if they were ionic compounds where hydrogen has a +1 charge.

/ \

BINARY ACIDS

The name of the acid is based on the name of the other element.

The acid is called "hydro"+ [stem name of element]+"ic acid".

- Examples: HCl = "hydro*chlor*ic acid"

- HF = "hydro*fluor*ic acid"

OXOACIDS

The name of the acid is based on the polyatomic ion it contains.

1) If the ion ends in "-ate", change it to "-ic".

2) If the ion ends in "-ite", change it to "-ous".

- Examples: H_3PO_4 = "phosphor*ic* acid"

- HNO_2 = "nitr*ous* acid"

- H_2SO_4 = "sulfur*ic* acid"