

## Naming Acids + Bases

① HF is binary, so its name will have the form

hydro \_\_\_\_\_ ic acid

The root of fluorine is fluor, so the name is

hydrofluoric acid

② HBr is binary, so hydrobromic acid

③  $\text{HNO}_3$  is an oxy acid, with nitrate as the negative ion.

The name will have the form

\_\_\_\_\_ ic acid

The root of nitrate is nitr, so the name is

nitric acid

④  $\text{H}_2\text{SO}_4$  is an oxy acid, with sulfate.

so sulfuric acid

Note: not sulfic acid

⑤  $H_2SO_3$  is an oxy acid w/ sulfite

∴ sulfurous acid

⑥  $HClO$  is an oxy acid w/ hypochlorite

∴ hypochlorous acid

⑦  $HClO_2$  is an oxy acid w/ chlorite

∴ chlorous acid

⑧  $HClO_3$  is an oxy acid w/ chlorate

∴ chloric acid

⑨  $H_2CO_3$  is an oxy acid w/ carbonate

∴ carbonic acid

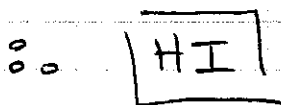
⑩  $H_3PO_4$  is an oxy acid w/ phosphate

∴ phosphoric acid

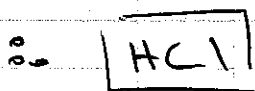
Note: not phosphic acid.

⑪ Name has the form hydro — ic acid, so it is binary.

The 2 ions are  $H^+$  and  $I^-$ .



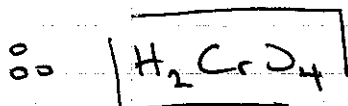
⑫ Binary. Ions are  $H^+$  and  $Cl^-$ .



⑬ Name has the form — ic acid, so it is an oxy acid.

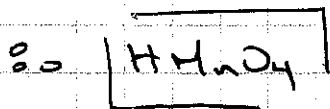
The poly atomic ion must be chromate, since the acid ended in — ic.

The ions are  $H^+$  and  $CrO_4^{2-}$ .



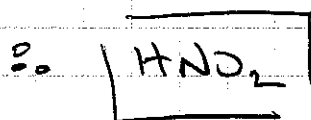
⑭ Oxy acid. Polyatomic ion is permanganate.

The 2 ions are  $H^+$  and  $MnO_4^-$

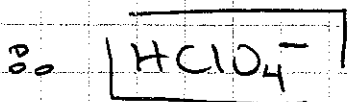


⑮ Oxy acid. Polyatomic ion is nitrite, since the name ended in — ous.

Ions are  $H^+$  and  $NO_2^-$



(16) Dry acid. Polyatomic ion is perchlorate.  
Ions are  $H^+$  and  $ClO_4^-$



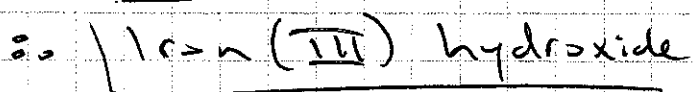
(17) Potassium Hydroxide

(18) Calcium Hydroxide

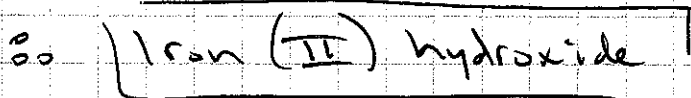
(19) Magnesium Hydroxide

(20) Beryllium Hydroxide

(21) Since OH is  $-1$ , and there are 3 of them, that makes  $-3$ . The iron must, therefore, be  $+3$ .



(22) Since OH is  $-1$ , and there are 2 of them, that makes  $-2$ . The iron must, therefore, be  $+2$ .



(23)  $Li^+$  and  $OH^-$

∴

$LiOH$

(24)  $Al^{3+}$  and  $OH^-$

∴

$Al(OH)_3$

(25)  $Cu^+$  and  $OH^-$

∴

$CuOH$

(26)  $Cu^{2+}$  and  $OH^-$

∴

$Cu(OH)_2$

(27)  $Sr^{2+}$  and  $OH^-$

∴

$Sr(OH)_2$

(28)  $Na^+$  and  $OH^-$

∴

$NaOH$