

Warm Up

Write chemical formulas for the following acids.

- a) ^(-ide) hydrobromic ~~acid~~ acid b) ^{ite} hypochlorous acid



- ide

hydro— ic acid

- ate

- ite

— ous acid

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Naming and Writing Formulas for Acids and Bases

Reminder:

Acids are aqueous hydrogen compounds that turn blue litmus red.

Bases are aqueous solutions of ionic hydroxides that turn red litmus blue.



IDENTIFYING ACIDS AND BASES FROM FORMULA'S

Most acid can be identified from **starting with H** or ending in **COOH**.

i.e. HCl , H_2SO_4 , CH_3COOH

Note: NH_3 and CH_4 are not acids!

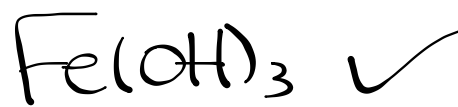
When naming acids, common names (for common acids) or IUPAC names can be used.

IUPAC (modern) Acid Names

- name the acid as an aqueous hydrogen compound
- Ex. aqueous hydrogen sulfide - $\text{H}_2\text{S}_{(\text{aq})}$

Classical Acid Names

- used the suffix **-ic** Ex. sulfuric
- used hydro and the suffix **-ic** Ex. hydrochloric
- used suffix **-ous** Ex. sulfurous
- and others (see inside back cover)

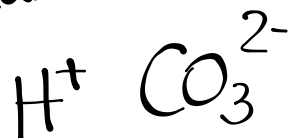


iron (III) hydroxide |

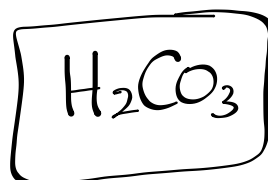




Carbonic acid



(carbonate)



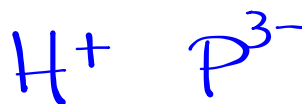
(-ate)

bromic acid



(-ide)

hydrophosphoric acid



Rules for Naming Acids

1. If anion ends in -ide, the acid is "hydro_____ic acid"

Ex. HCl

2. If anion ends in -ate, the acid is "_____ic acid"

Ex. H₂SO₄

3. If anion ends in -ite, the acid is "_____ous acid"

Ex. H₂SO₃