

Naming Acids and Bases

List

- explain how acids and bases are named

Notes

Naming Acids

- ★ Binary acids - prefix HYDRO and suffix IC
 - ☆ HCl = Hydrochloric
 - ☆ HBr = Hydrobromic
- ★ Oxyacids (containing polyatomic ions with oxygen)
 - ☆ most common number of oxygens = suffix IC
HClO₃ = chloric acid
 - ☆ one more than most common = prefix PER and suffix IC
HClO₄ = perchloric acid
 - ☆ one less than most common = suffix OUS
HClO₂ = chlorous acid
 - ☆ two less than most common = prefix HYPO and suffix OUS
HClO = hypochlorous acid

oxidation state	polyatomic ion			acid name	
	example	prefix	suffix	prefix	suffix
two less than most common	ClO ⁻¹	hypo	ite	hypo	ous
one less than most common	ClO ₂ ⁻¹	-	ite	-	ous
most common	ClO ₃ ⁻¹	-	ate	-	ic
one more than most common	ClO ₄ ⁻¹	hyper	ate	per	ic

Naming Bases - metal hydroxide

- ★ Examples: NaOH - sodium hydroxide; KOH - potassium hydroxide

Answer the questions below by circling the number of the correct response

- The proper name for the acid with the formula HBr(aq) is
(1) hydrogen bromide acid (2) bromic acid (3) bromous acid
(4) hydrobromic acid
- What is the name of the base with the formula LiOH? (1) lithium oxygen hydride (2) lithium hydrate (3) lithium hydroxide
(4) hydrolithic acid
- What is the formula for perchloric acid? (1) HCl (2) HClO₄
(3) HClO₃ (4) HClO
- The proper name for the acid with the formula HNO₂(aq) is
(1) nitrous acid (2) nitric acid (3) hyponitrous acid (4) hydronitric acid
- Which of the following is the base calcium hydroxide?
(1) CH₃COOH (2) Ca(OH)₂ (3) CH₃OH (4) CaCl₂