Review Chapter 3: Naming Compounds

Sept 15, 2022

Chemistry Department, Cypress College

Lecture Weekly Agenda

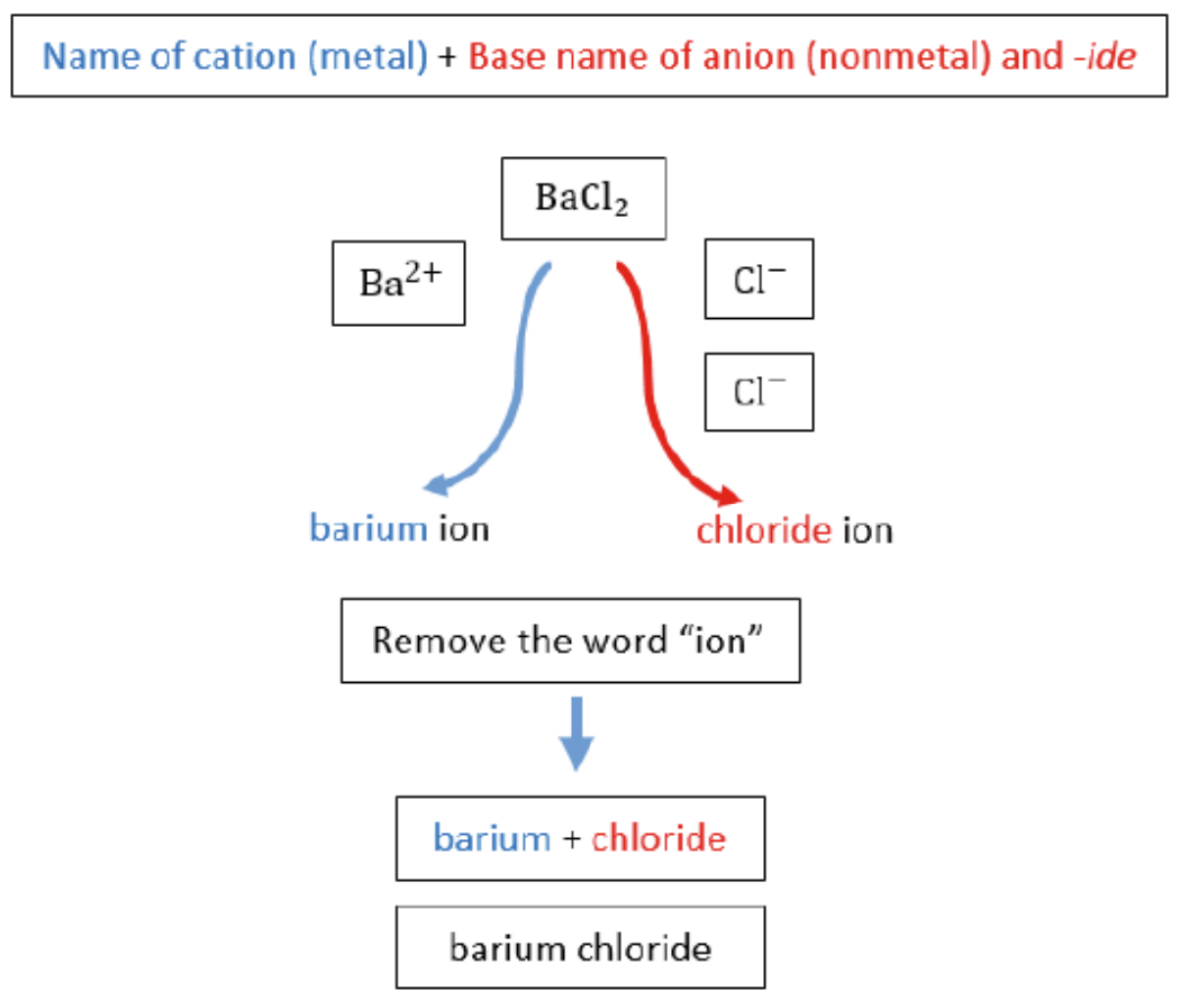
- Go over homework assignment; present your work for 1pt EC
- Review Ch 3 - Chemical Compounds
- Finish up Ch 3 lect and worksheet
- Homework and quiz 3 released Fri, Sept 16 at 3pm
- Homework due Fri, Sept 23 at 11:59pm
- Quiz 3 due Tues, Sept 20 at 11:59pm
- **Heads up:** Exam 1 coming up Sept 27 in lecture and 1.5 hours exam

Outline

Review: Naming Compounds

Naming Binary Ionic Compounds

The metal cation is named first, followed by the nonmetal anion. The word ion is dropped from both parts.

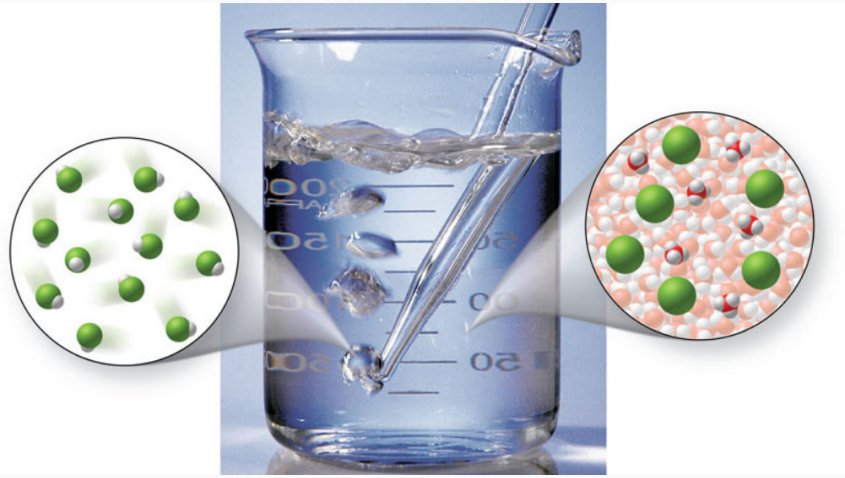


Naming Molecular Compounds

Prefix	Number	Prefix	Number	Prefix	Number
mono-	1	penta-	5	octa-	8
di-	2	hexa-	6	nona-	9
tri-	3	hepta-	7	deca-	10
tetra-	4				

1. Use numerical prefix for the element (usually ignore the first when using "mono")
2. Add "-ide" to the second element

Naming Acids



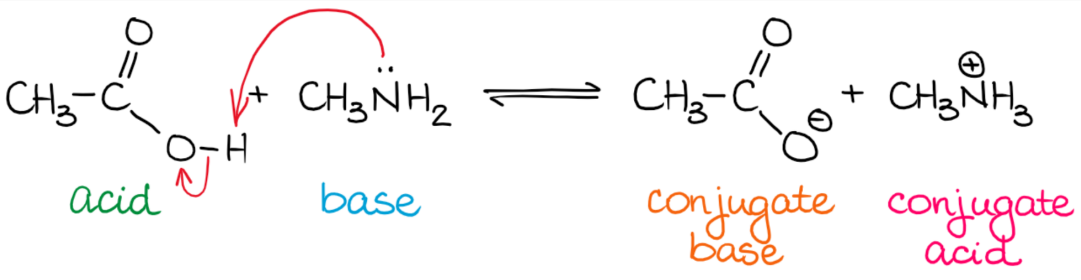
1. If anion ends in "-ide," add "hydro" before the root of the anion name followed by "-ic acid"
2. If anion ends in "-ate," use the root of the anion name followed by "-ic acid"
3. If anion ends in "-ite," use the root of the anion name followed by "-ous acid"

What is an Acid?

Arrhenius Acid - dissociation of acid in water to yield the ions

e.g. $HCl(aq) \rightarrow H^+(aq) + Cl^-(aq)$

Brønsted Acid - any species that can donate a proton H^+



Lewis Acid - donation of a pair of electrons