## CHEM 103 Ionic and Molecular Compounds

Lecture Notes February 2, 2006 Prof. Sevian





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#### Agenda

- Finish atomic symbols & isotopes
- What kinds of compounds exist?
- How do we name them?
- Pre-assessment of chemistry understanding

# What Information does the Symbol Contain?



Where is each piece of information contained?

- How many protons?
- Why is the quantity of protons called the atomic number?
- How many neutrons?
- How many total particles in the nucleus? Why is this called the mass number?
- What element is it?



#### Catching up on some vocabulary



How would you define these words now?

- Isotope
- Nucleus
- Neutral
- Mass number
- Atomic number



#### Think-Pair-Share

Fill in the missing information				
Symbol	Protons	Neutrons	Mass Number	Electrons (in neutral atom)
$^{11}_{5}{ m B}$				
		20	37	



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### What does % mean in chemistry?

$$\% = \frac{\text{part}}{\text{whole}} \times 100$$

Example: How would you figure out what % of students in the room are between the ages of 20-29?

#### Isotopes and Natural Abundances



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The mass of a typical sample of an element<sup>1</sup> is a weighted average of the masses of the isotopes



