

Naming Ionic Compounds HW #1

ANSWERS

1. Define Isoelectric: Having and electron configuration similar to (a noble gas). Iso means the same, electric refers to the electron configuration. All ions are isoelectric to a noble gas. This is always true.

2. Define mono-atomic ion: Mono is one, ion is a positively or negatively charged particle. These are single ions, when an metal atom from the periodic table loses electrons to become a cation, or a nonmetal gains electrons to become an anion. There are polyatomic ions, listed on table E of your reference tables. You don't need to know them yet.

atom	ground state e ⁻ configuration	ion e ⁻ configuration (isoelectric to?)	ion symbol
Mg	2-8-2	2-8 (Ne)	Mg ⁺²
Al	2-8-3	2-8 (Ne)	Al ⁺³
Cl	2-8-7	2-8-8 (Ar)	Cl ⁻¹
F	2-7	2-8 (Ne)	F ⁻¹
Sr	2-8-18-8-2	2-8-18-8 (Kr)	Sr ⁺²
S	2-8-6	2-8-8 (Ar)	S ⁻²
N	2-5	2-8 (Ne)	N ⁻³
Li	2-1	2 (He)	Li ⁺¹