MOLECULAR COMPOUNDS

-made up of two or more non-metals.

-do not form ions in order to bond

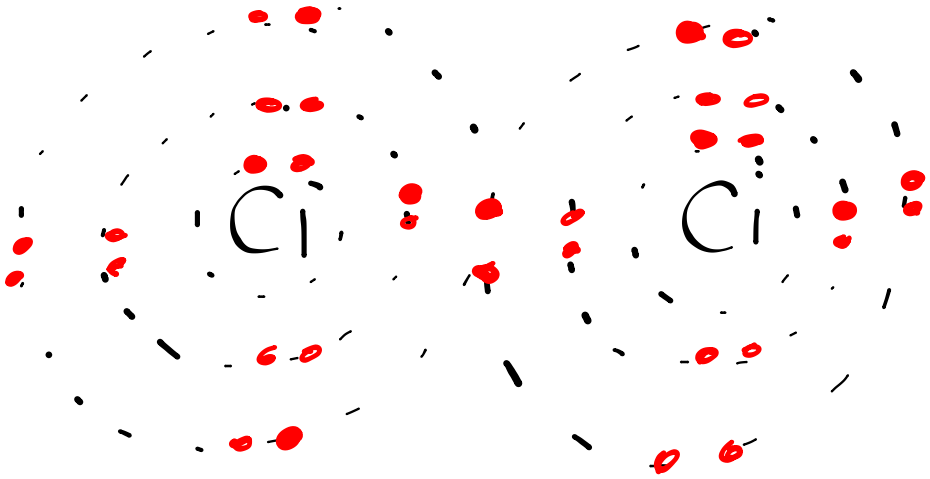
-atoms involved in molecular compounds share electrons.

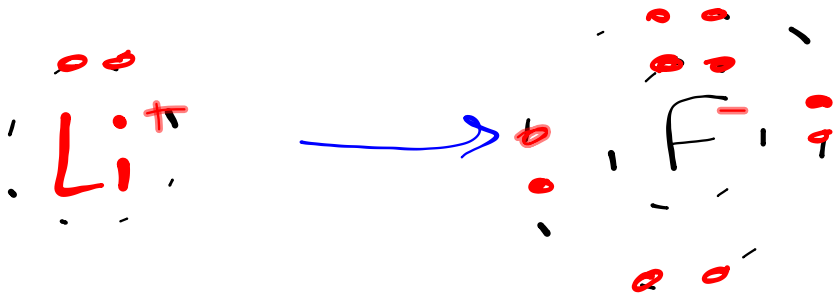
-the bonds formed by the sharing of electrons are called covalent bonds.

-a covalent bond is a pair of shared electrons.

-see Fig. 3 page 202(two chlorine atoms sharing a pair of electrons)

-the diagram of the two chlorine atoms is an example of a diatomic molecule. (Two atoms of the same element). This happens mainly with elements in Table 1-page 202.


Cl
Cl


Li+
F−

Naming Molecular Compounds

- named similarly to ionic compounds
- name first element listed, with a prefix to count number of atoms

(do not use a prefix for one atom of the first element)

- name second element, with a prefix to count number of atoms. Change the suffix to -ide

# of Atoms	Prefix
1	mono-
2	di-
3	tri-
4	tetra-
5	penta-
6	hexa-

Ex. CS_2

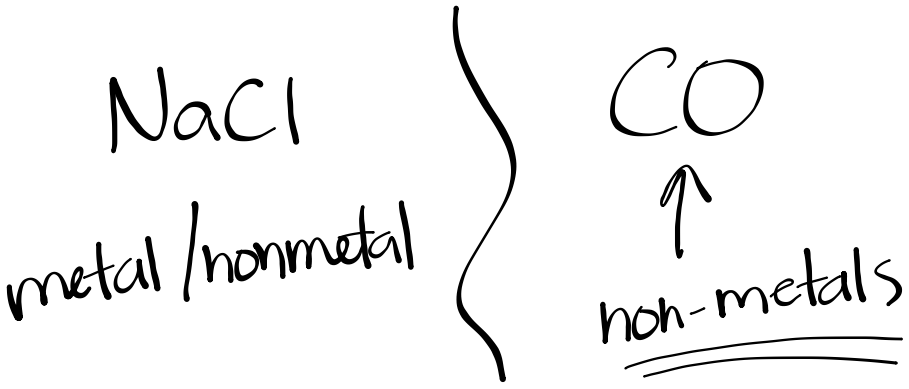
carbon disulfide

Ex. CF_4

carbon tetrafluoride

Ex. N_2O

dinitrogen monoxide


NaCl
metal / nonmetal
CO
non-metals

Ionic Compounds vs. Molecular Compounds

→ + / −

(attract)

→ name -ide

(-ate)

→ transferring electrons

→ metal / nonmetal

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