

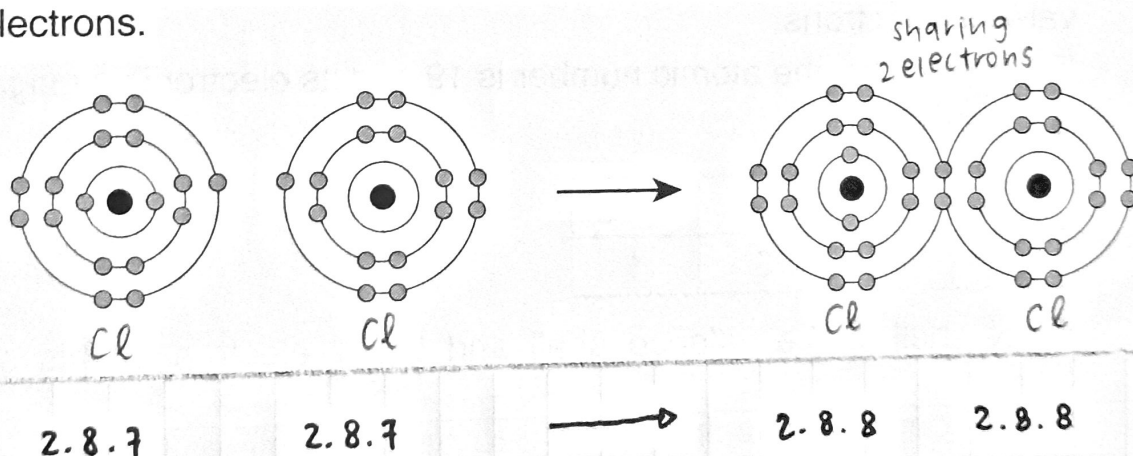
COVALENT COMPOUNDS

- non-metal atoms
- sharing of electrons

physical properties

- low melting and boiling points
 - covalent substances have a simple molecular structure so a small amount of energy is needed to overcome the weak intermolecular forces of attraction between molecules
- insoluble in water and soluble in organic solvents
 - except alcohol and sugar that are soluble in water
- cannot conduct electricity in any state
 - no free-moving ions to conduct electricity
 - except carbon in graphite form

For example, 2 chlorine atoms can share 1 pair of electrons to form 1 molecule of chlorine in which both chlorine atoms have 8 valence electrons.



STABLE
ELECTRONIC
CONFIGURATION