

Characteristics of molecular and ionic compounds.

Molecular compounds

- Formed by union of non-metals only
- Atoms are neutral (same number of + and – particles)
- Form individual (discrete) units called molecules
- Strong forces within the molecule, weak forces between molecules
- In solution they form non to weak electrolytes
- Do not conduct electricity when molten
- Low melting point and boiling point (due to weak attraction between molecules)

Ionic compounds

- Formed by union of metals and non-metals
- Formed by oppositely charged ions (unbalanced number of + and – particles)
- Form crystal lattices (3D orderly arrays of particles)
- Very strong attraction between individual particles compounded by the lattice structure
- In solution they form strong electrolytes
- Conduct electricity when molten
- Very high melting and boiling points (due to strong attractions between oppositely charged ions)

Ions: atoms with uneven number of positive and negative particles

Positive Ions = Cation = more positive than negative particles

Negative Ions = Anion = more negative than positive particles.