

Chemical Bonding

Ionic bond – bond between inorganic ions
(e.g. Na^+ and Cl^-)

Covalent bond – bond between atoms in molecules
(e.g. CH_4 and H_2O), may be single,
double, or triple bond.

- may be equal distribution of charge
(CH_4)... non-polar... hydrophobic
- may be unequal distribution of charge
(H_2O) (a.k.a. dipole)... polar...
hydrophilic

Disulfide bond – bond between Sulphur atoms
Important in protein folding for
proper configuration and function.
Cys=Cys molecules determine
shape of molecule.

Hydrogen bond – weak attraction between
oppositely charged atoms in a dipole, or
between dipoles (particularly in the
presence of $-\text{OH}$, $-\text{C}=\text{O}$, $>\text{N}-\text{H}$ groups)