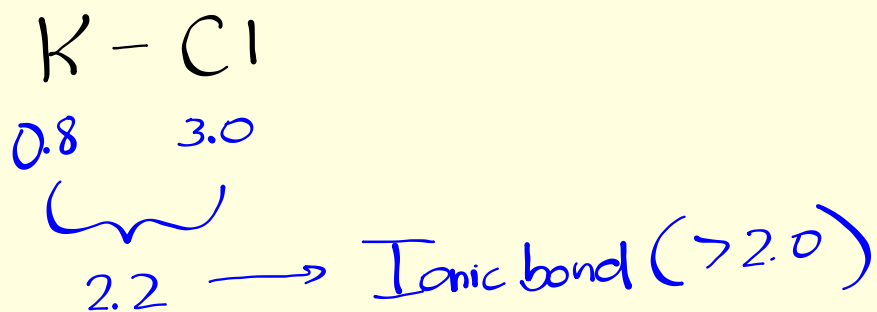
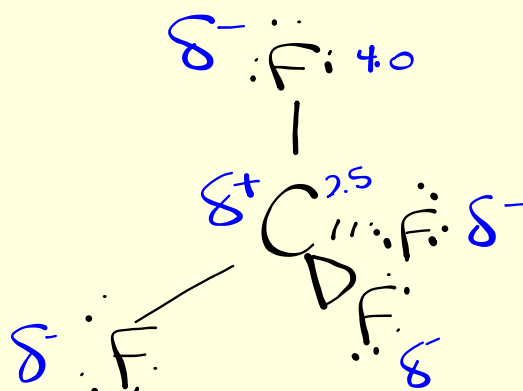
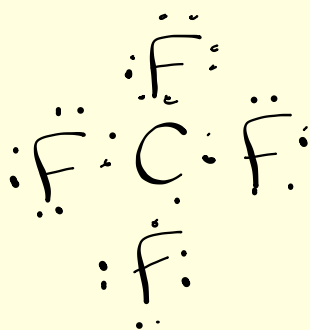


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#30, 31

CF₄

X non polar

Attraction Between Molecules

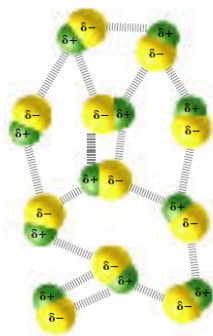
Intermolecular forces are weaker than both ionic and covalent bonds.

Van der Waals Forces

- Weakest attractions between molecules.
- Can be separated into two categories:

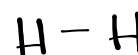
Dipole Interactions

Electrical attraction between oppositely charged regions of polar molecules.

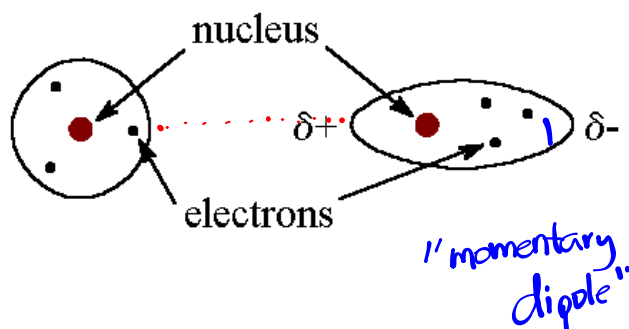


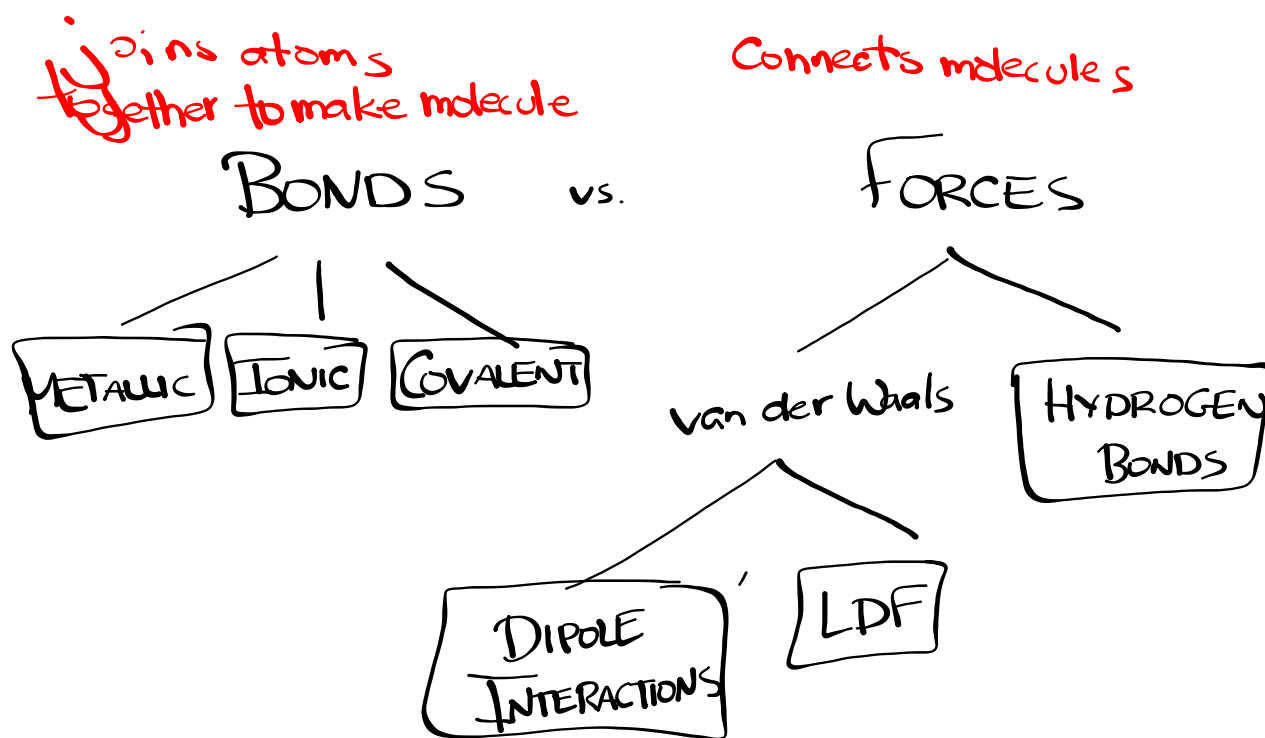
Dispersion Forces (London Dispersion Forces)

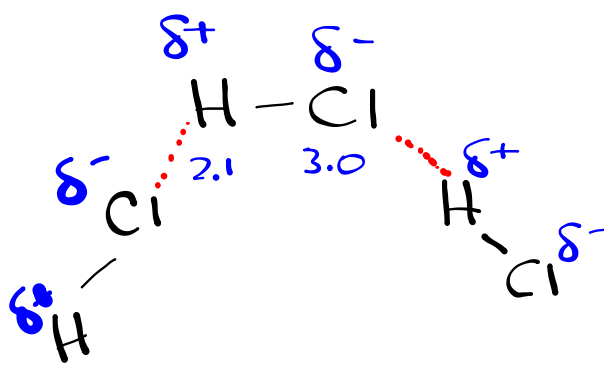
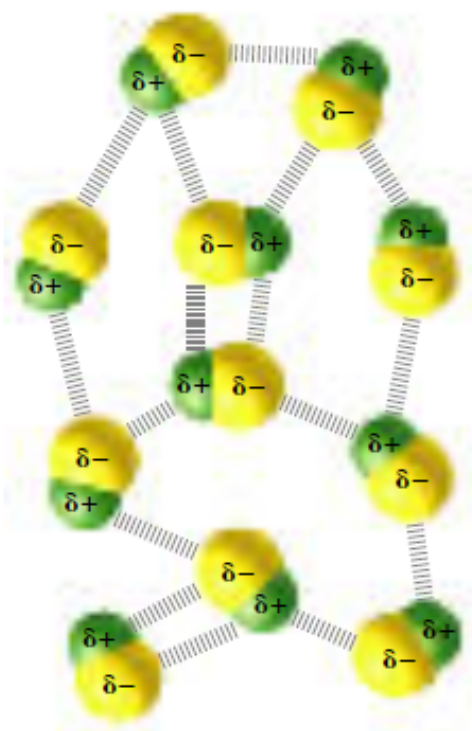
- weakest of all molecular interactions
- occur between even **non-polar molecules**
- caused by the motion of electrons



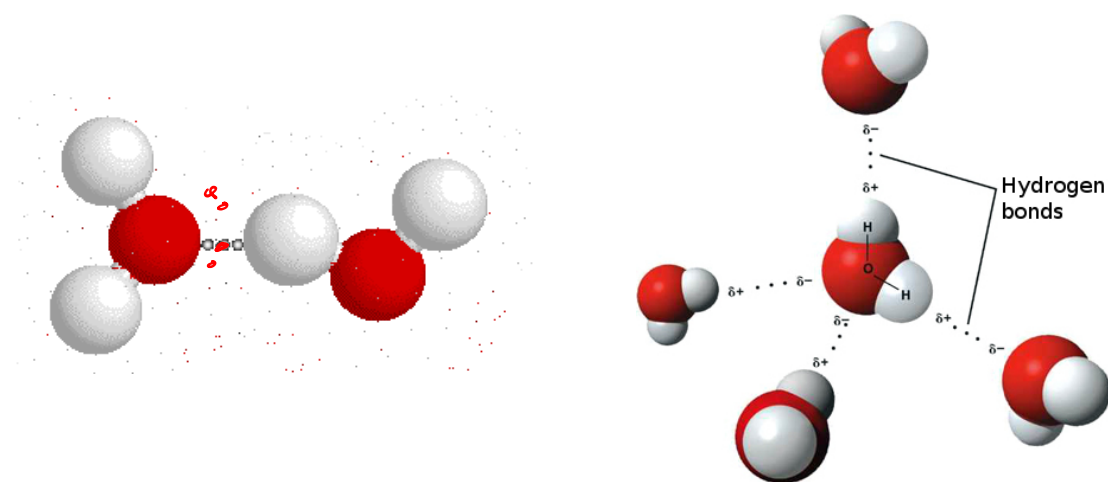
when moving electrons are momentarily on one side of a molecule, the electrons of the neighbouring molecule will move to the opposite side, causing a weak attraction.







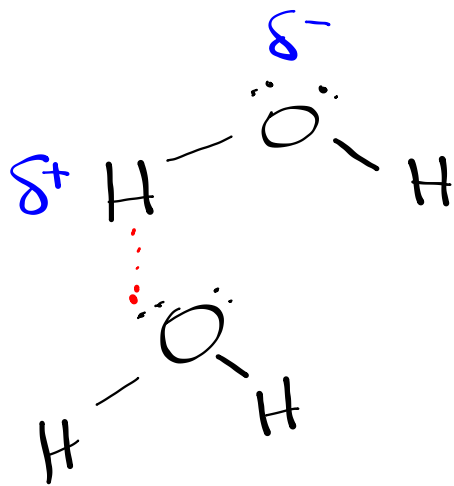
Hydrogen Bonds

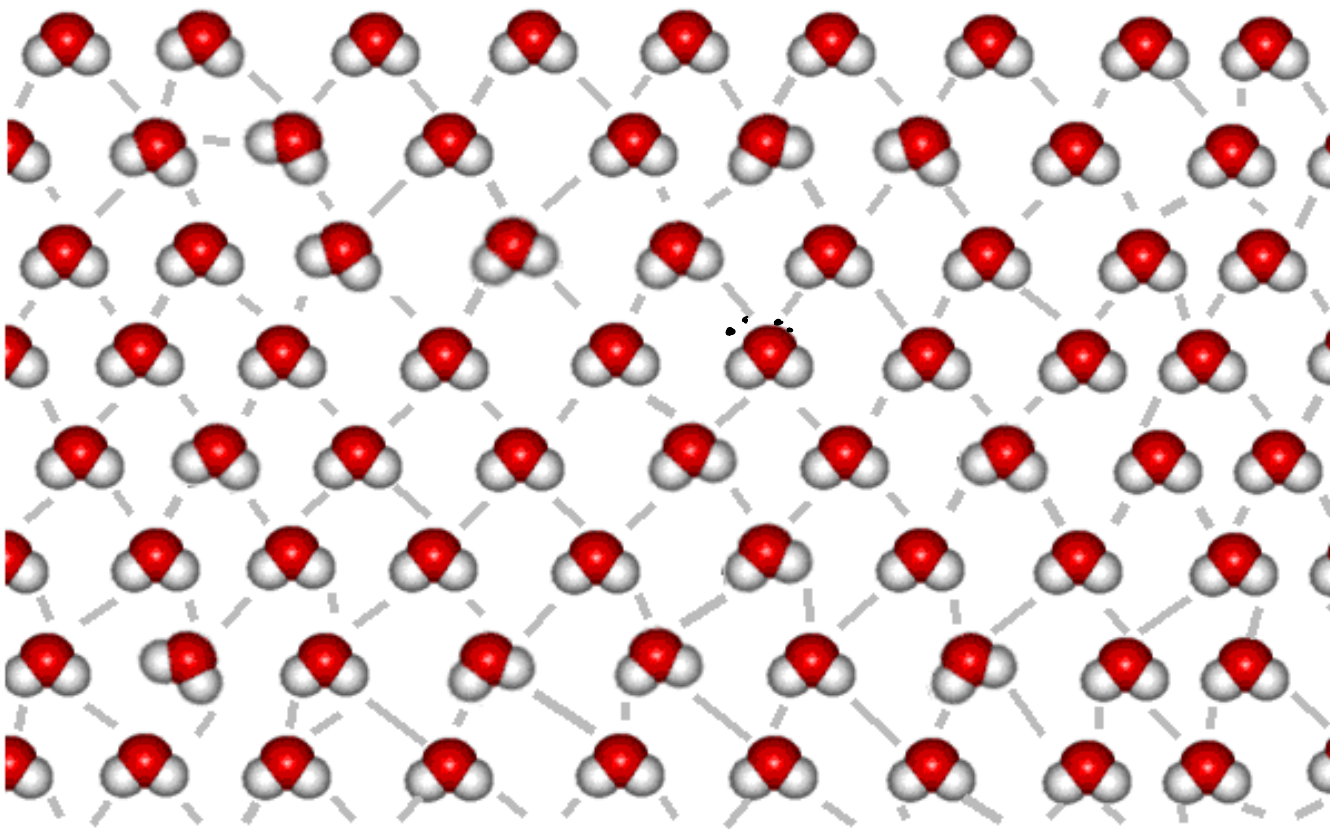


Hydrogen Bonds

Strong attractive forces in which a hydrogen covalently bonded to a very electronegative atom (O, N, F), is weakly bonded to an unshared electron pair of another electronegative atom.

- strongest intermolecular force
- not as strong as an ionic or covalent bond





Homework

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joins atoms together
in a molecule

holds multiple
molecules together

