

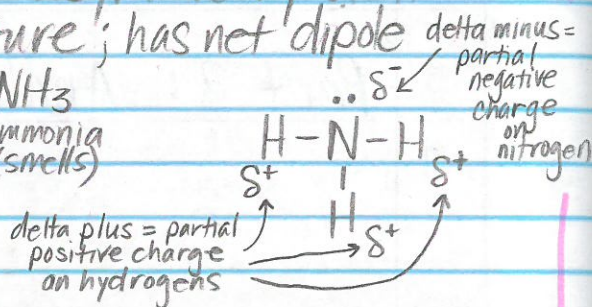
(L42) Attraction Between Molecules

TODAY'S DATE

E.Q.: Why do some molecules smell while others do not?

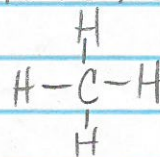
polar molecule → a molecule that has a negatively charged end and a positively charged end due to electronegativity differences btwn the atoms and/or asymmetry of its structure; has net dipole

e.g., NH_3
ammonia (smells)



nonpolar molecule → a molecule that is not attracted to an electrical charge; a molecule is nonpolar if each atom shares e- equally or there is no net dipole

e.g., CH_4
methane (no smell)



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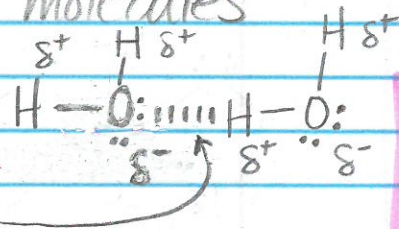
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partial charge → a less than full charge on part of a molecule, created by unequal sharing of e⁻

dipole - a molecule or part of a molecule that contains both positively and negatively charged regions

intermolecular force → a force of attraction that occurs btwn molecules

e.g., H₂O



• an intermolecular force exists btwn

the hydrogen of one water molecule and the oxygen of another

- opposite charges attract
- in the case of water this intermolecular force is a hydrogen bond