

Covalent Compounds

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Since covalent bonds are about donating/receiving electrons covalent compounds tend to be made of small molecules.

However, there are some enormous molecules called polymers.

Additionally you can get giant covalent molecules like diamond and silicon dioxide

Properties of Simple Covalent Molecules



oxygen



bromine



water

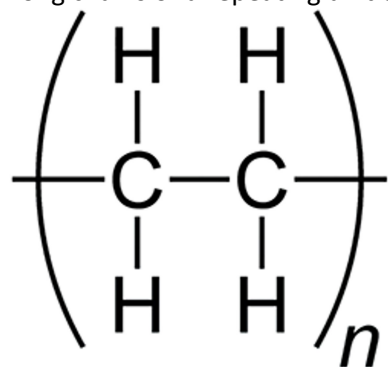


ammonia

These have strong bonds between the atoms that make up the molecules, but tend to have very weak forces between the molecules and so have low mpt/bpt. As the molecules get bigger so the intermolecular forces go up along with the mpt/bpt. They don't conduct electricity

Polymers

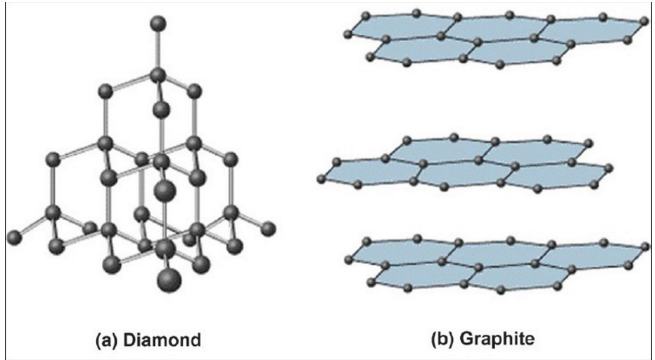
Long chains or a repeating unit called a 'repeating unit'



Clue after in the name polyethene = lots of ethene units.

Giant Covalent

All atoms joined with strong covalent bonds. So high mpy/bpt. No free ions so can't conduct.



(a) Diamond

(b) Graphite