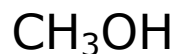


Organic Review

Aug 2002

You have 4 aqueous solutions:



1 which has the lowest pH?

The only Acid CH_3COOH

2 which contain electrolytes?

All but methanol the alcohol CH_3OH

3 which has the lowest freezing point?

$\text{Ba}(\text{OH})_2$ which has more moles of ions per mole in a liter of water

4 which will react with an Arrhenius acid and form water + a salt?

$\text{Ba}(\text{OH})_2$ which is the only Arrhenius base

5 name each solution

potassium chloride, methanol, barium hydroxide and ethanoic acid

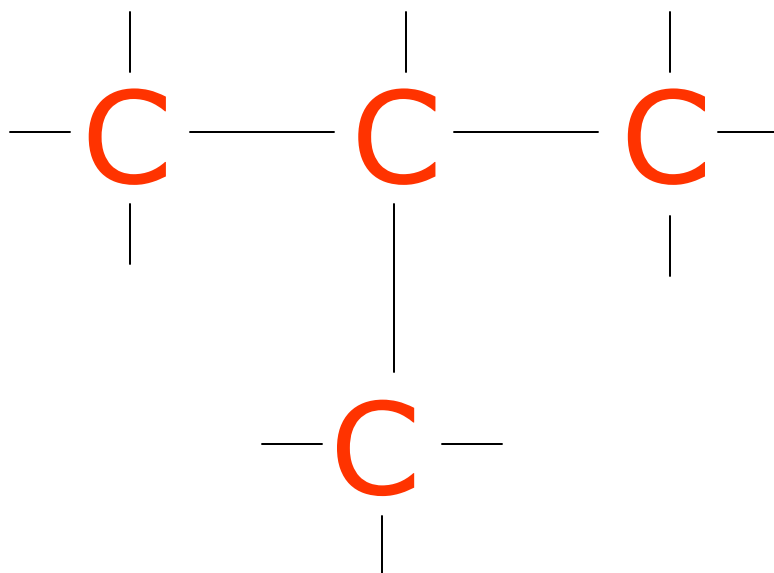
Of these:

methane, propane, ethane, butane

6. Which has an isomer?

7. Draw that isomer.

Butane has an isomer, the rest are too small. It's methyl propane.

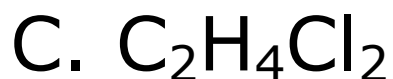


Jan 2003

8. In saturated hydrocarbons, carbon atoms are bonded to each other by

1. single covalent bonds only
2. double covalent bonds only
3. alternating single and double covalent bonds
4. alternating double and triple covalent bonds

9. Which represents the proper product of an addition reaction between ethene and chlorine?



written another way is $\text{C}_2\text{H}_4\text{Cl}_2$

Choice C

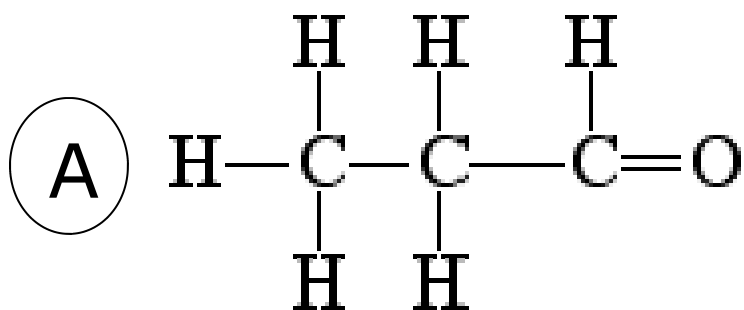
10. How is the bonding between carbon atoms different in unsaturated hydrocarbons and saturated hydrocarbons?

Saturated hydrocarbons include the alkanes, all C—C bonds are single bonds only.

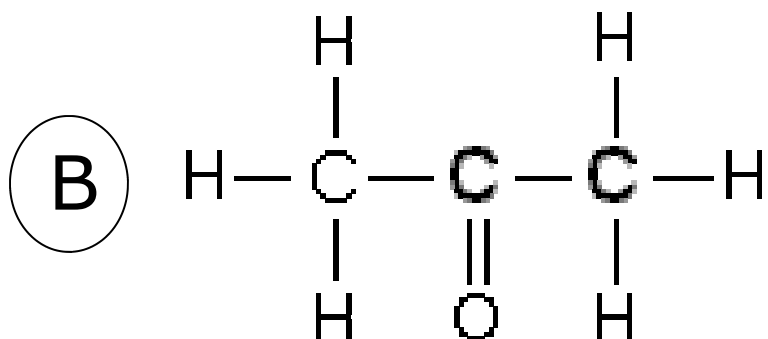
Unsaturated hydrocarbons include the alkenes, which have at least one C=C bond as a double covalent bond.

They also include the alkynes, which have at least one C≡C triple bond.

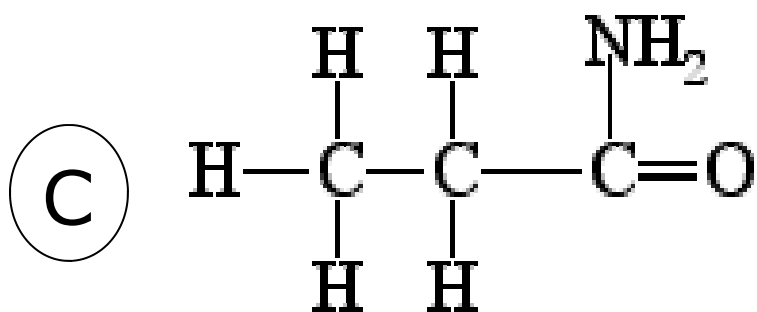
11. Of these which is an alcohol & which a ketone? (name all)



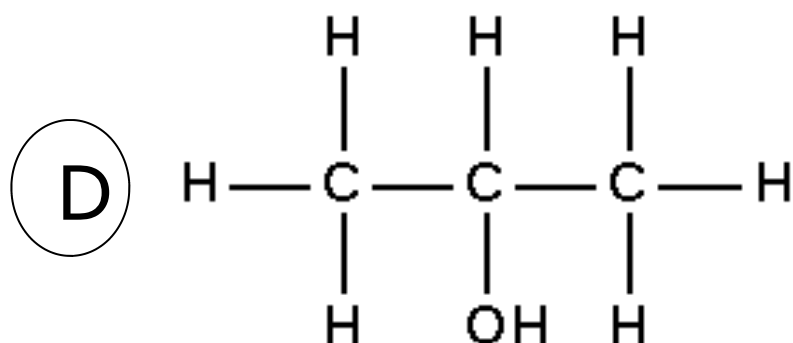
Propanal is an aldehyde



Propanone is a ketone



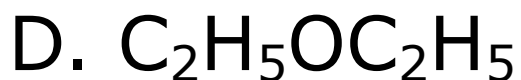
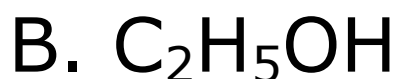
Propanamide is an amide



2-propanol is an alcohol

June 2004

14. Of these 4 organic compounds, which has the most similar properties to ethanoic acid?



Then name each compounds.

15. A. butanoic acid

16. B. ethanol

17. C. ethyl propanoate

18. D. diethyl ether

19. In a substitution reaction between ethane and diatomic chlorine, what are the products?

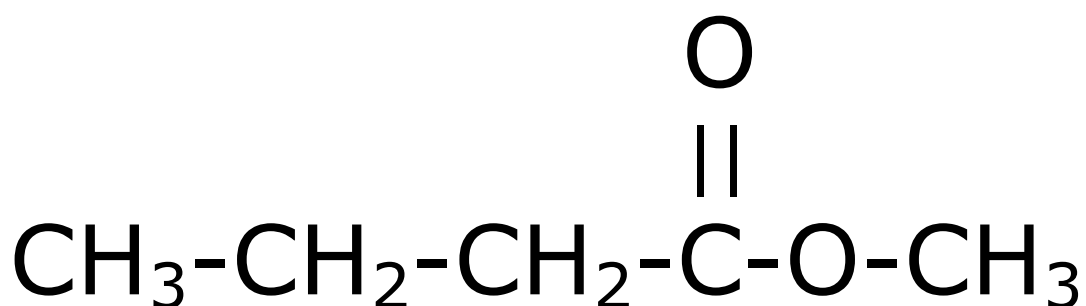
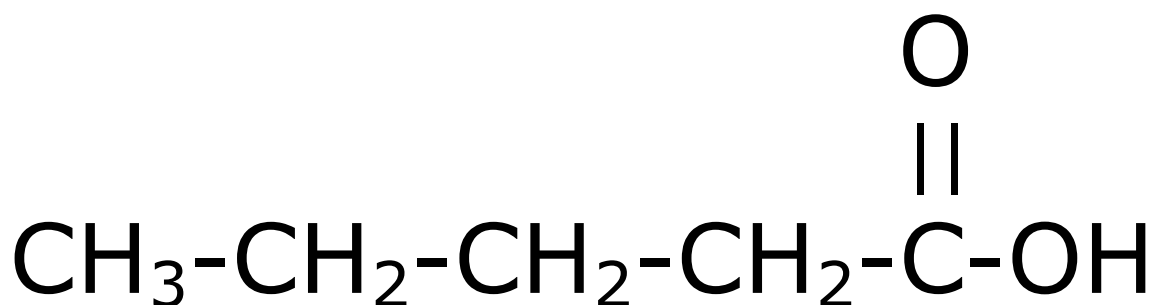
- A. ethene and HCl
- B. dichloroethane
- C. 1,2 dichloroethane
- D. chloroethane and HCl

20. Aug 2004

Molecules of 1-bromopentane and molecules of 2-bromopentane differ in

- A. molecular formula
- B. structural formula
- C. number of carbon atoms per molecule
- D. number of bromine atoms per molecule

Given these 2 organic molecules, the differences in their physical and chemical properties are primarily due to their different...



- A. number of carbon atom
- B. number of H atoms
- C. molecular masses
- D. functional groups (they're isomers)

draw the structural diagrams and
complete the word equation for:

butanoic acid + 1-propanol yields

water + propyl butanoate

