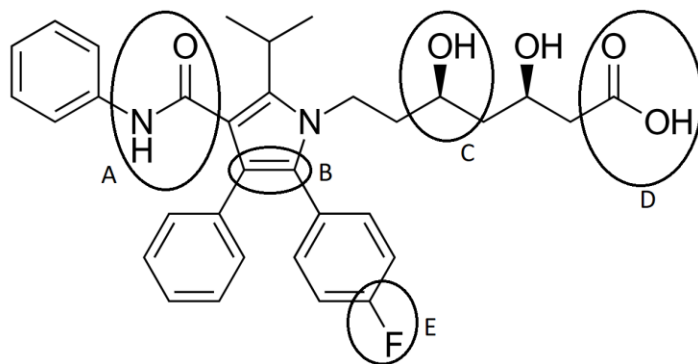


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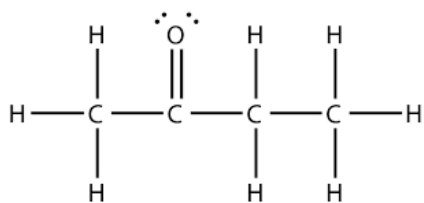
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Chemistry 30: Organic Chemistry Practice Test

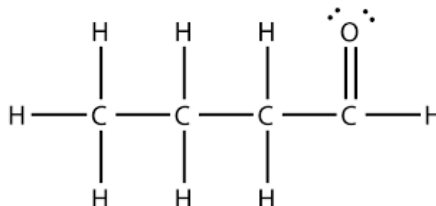
- Draw a line diagram for each of the following compounds:
 - 4-propyl-2-methyl-1-pentene
 - 2,3-dimethyl-3-propyl-1,5-heptadiene
 - 2-methyl-1-hexyne
 - 2,2,3,4-tetramethyloctane
- Explain why butane and 2-methylpropane are structural isomers.
- What type of intramolecular bonds and intermolecular forces hold together hydrocarbons?
- For butane, 2-butyne and 2-methylpropane, list the compounds in order from weakest to strongest intermolecular forces, and explain how you determined the order.
- Write the combustion reaction for octane.
 - Why does octane make a good additive for gasoline, as opposed to something like methane, which produces more energy?
 - What are the by-products of incomplete combustion?
- How is fractional distillation used to separate different lengths of hydrocarbons?
- Identify each lettered functional group:



- Consider the following compounds:



Compound A



Compound B

- Identify which type of compounds are above, based on the functional groups.
 - Which of the substances would have stronger intermolecular forces? Explain why.
- To the right is acetic acid (vinegar). Use the diagram to explain why vinegar is a good choice for cleaning.

