

Organic Chemistry

Major Topics

- Drawing / Naming Compounds



- Isomers

- Reactions



You Should Know...

- General formulas of alkanes, alkenes, alkynes, and cyclic compounds
- Aromatic compounds
- Pi bonds
- Characteristics of organic compounds

Families of Organic Compounds (p.294)

Alkanes

ethane

Alkenes

ethene

Alkynes

ethyne

Aromatics and
Cyclic Compounds

cyclohexane

Organic Halides

chloroethane

Alcohols

ethanol

Carboxylic Acids

ethanoic acid

Aldehydes

ethanal

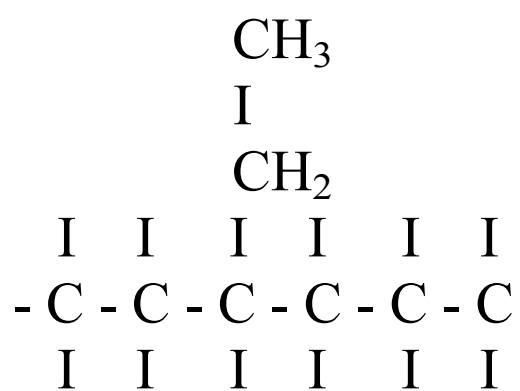
Ketones

propanone

Esters

methyl
ethanoate

Draw 3-ethyl-2,4-dimethylpentane



Naming Hints:

- List branches alphabetically
- Location of multiple bond takes precedence over branch
- Esters - name alcohol part, then carboxylic acid part

Ex. ethanoic acid + methanol --->

Isomers

Name and draw all isomers for the following:



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Reactions

Addition

alkene/alkyne + H₂ or HX

Substitution

alkane/aromatic + halogen

Elimination

alkyl halide + OH⁻
alcohol + acid

Esterification

carboxylic acid + alcohol

Cracking

Formation