

## Organic Chemistry

✓ Naming/Drawing Organic Molecules

↳ Ester, Amines, Amides

✓ 1°, 2°, 3° alcohols

✓ isomers

✓ benzene rings (double bonds)

• Oxidation  
+ Rx

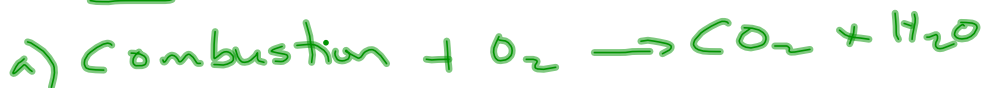
✓ - Polymers

- synthesis Pathways

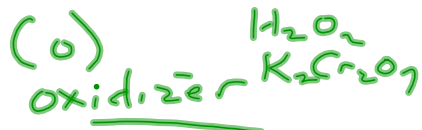
✓ delocalized e

✓ - Cross linking

Rx:



b) Oxidization



1° alcohol  $\rightarrow$  aldehyde

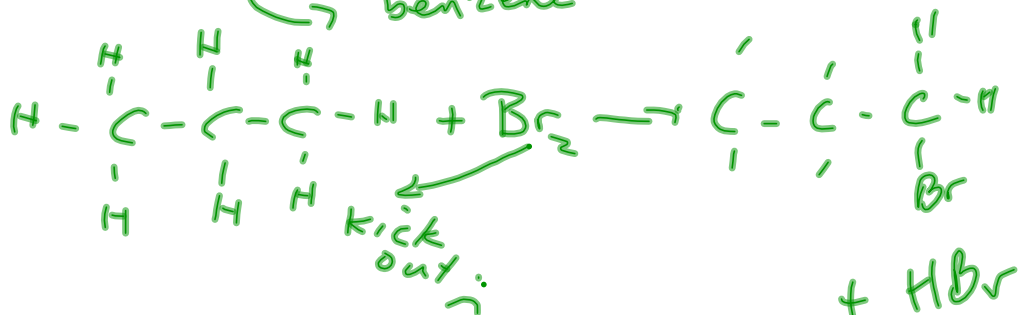
2° alcohol  $\rightarrow$  ketone

aldehyde  $\rightarrow$  carboxylic acid



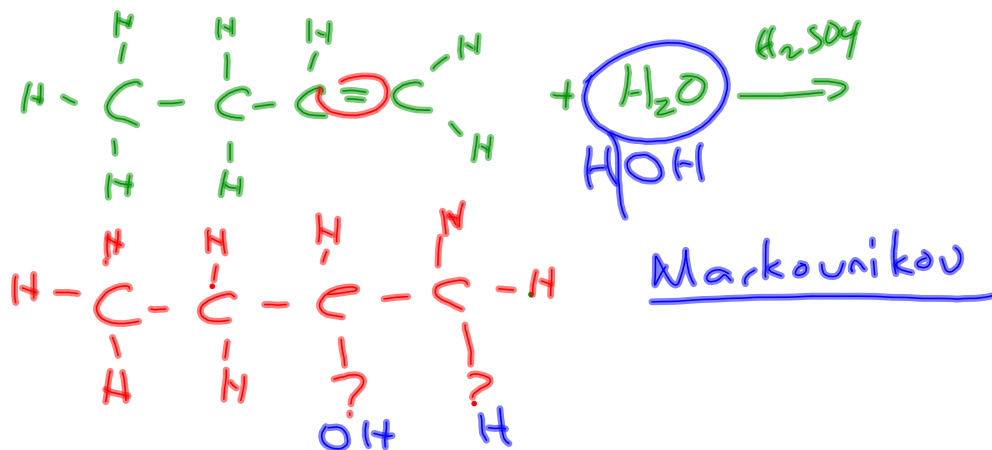
c) Substitution

$\rightarrow$  saturated  
 $\rightarrow$  benzene



d) Addition:

$\rightarrow$  unsaturated



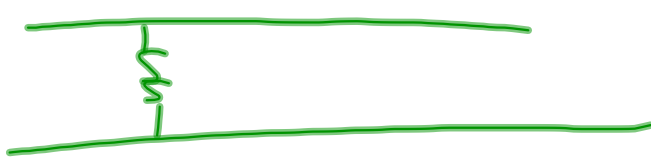
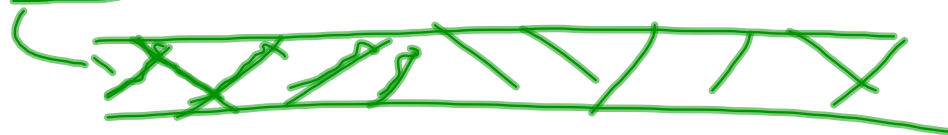
Polymers: long chains of monomers

↓  
small molecule

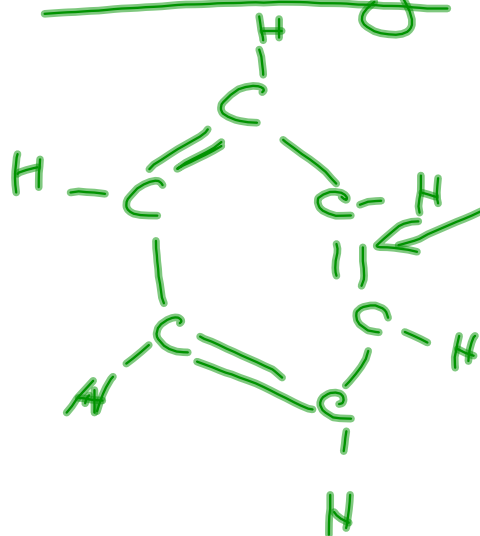
- proteins - aa
- DNA - nucleotides
- RNA - nucleotides
- glycogen - } glucos-
- Starch } glucos-
- cellulose }

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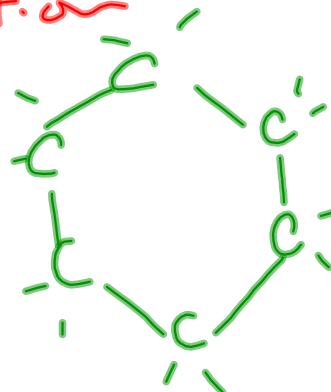
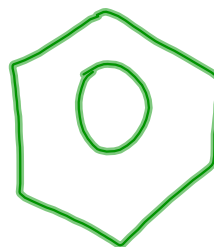
u.v. Side-chains / Cross link



## Benzene Ring:



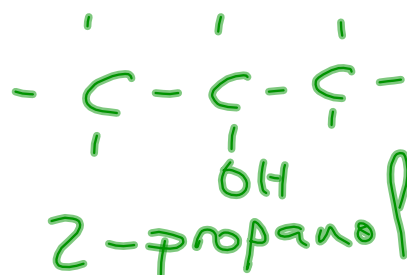
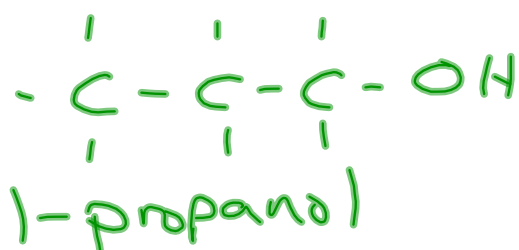
delocalized  
 $e^-$



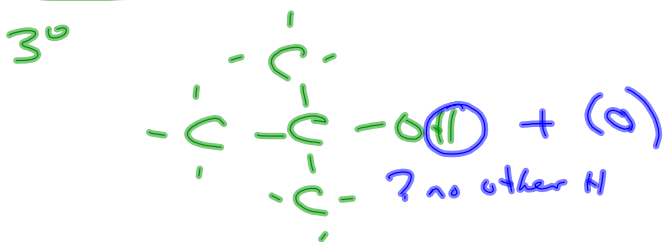
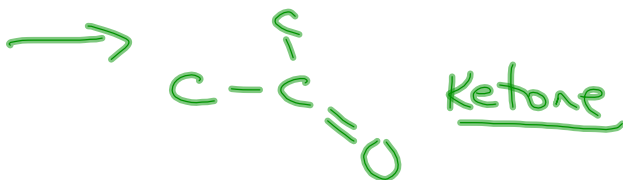
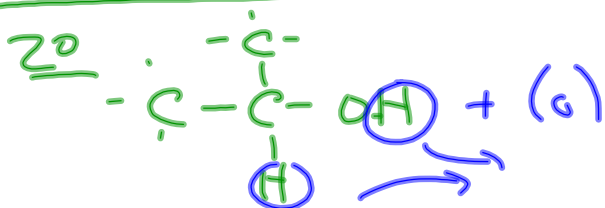
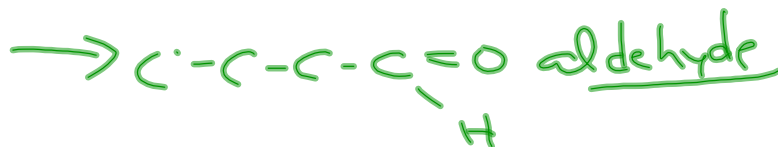
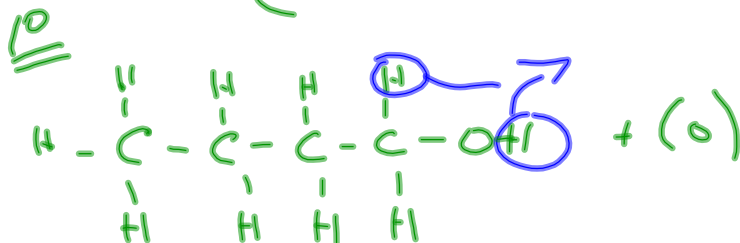
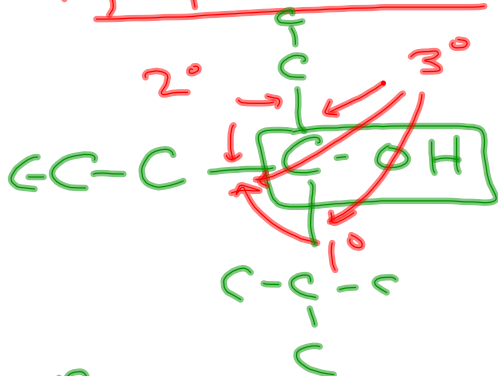
Isoomers:

↳ same formula

↳ put together differently

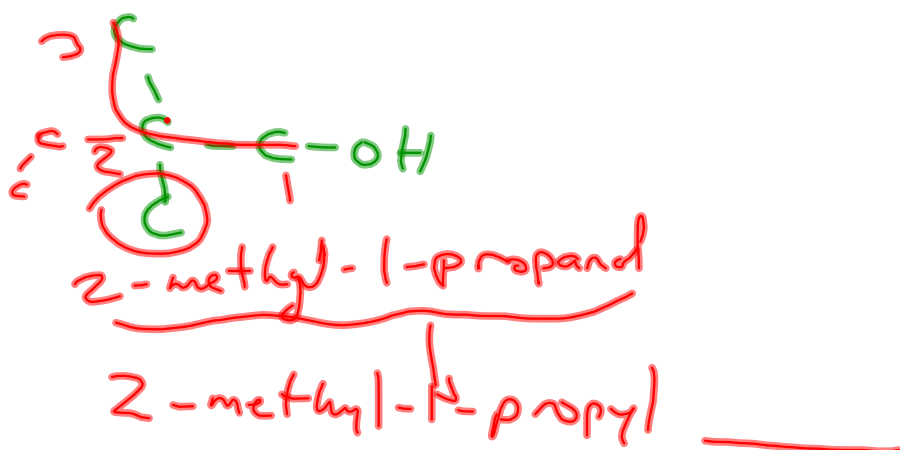
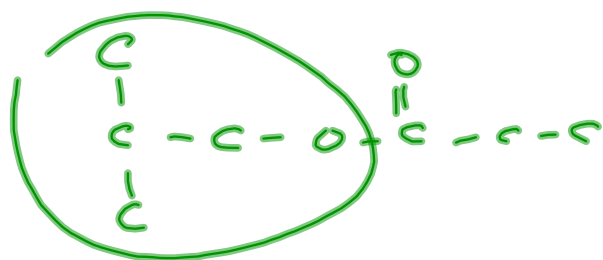
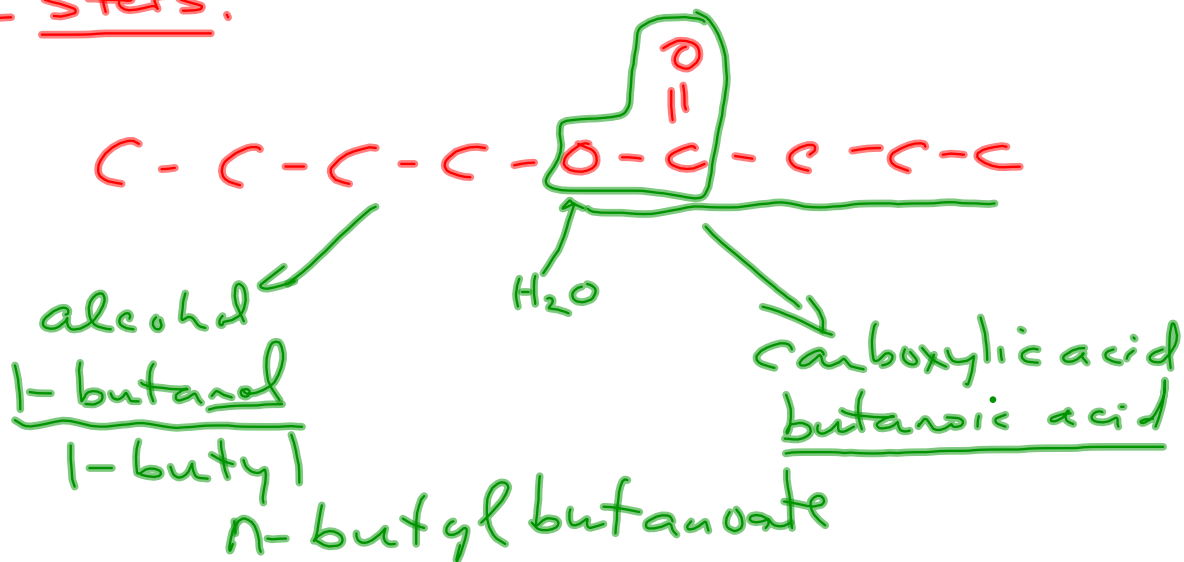


1°, 2°, 3° Alcohols

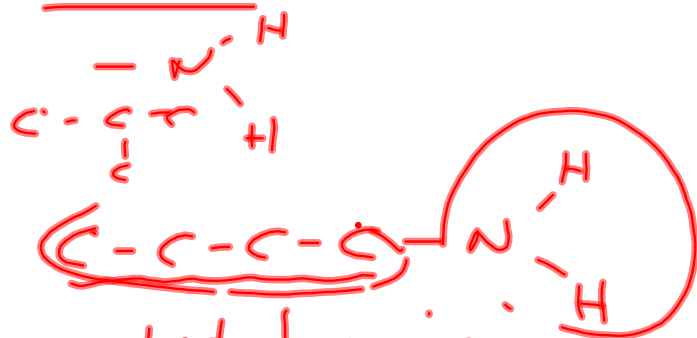


→ can't be oxidized.

Esters:



Amines:



1-butyl amine  
1-aminobutane

Amides

