

AROMATIC COMPOUNDS

1.

29-04-2020 (Lecture-7) Deg-II (Hons.&Sub.)

Topic - "Addition & Oxidation Reactions"

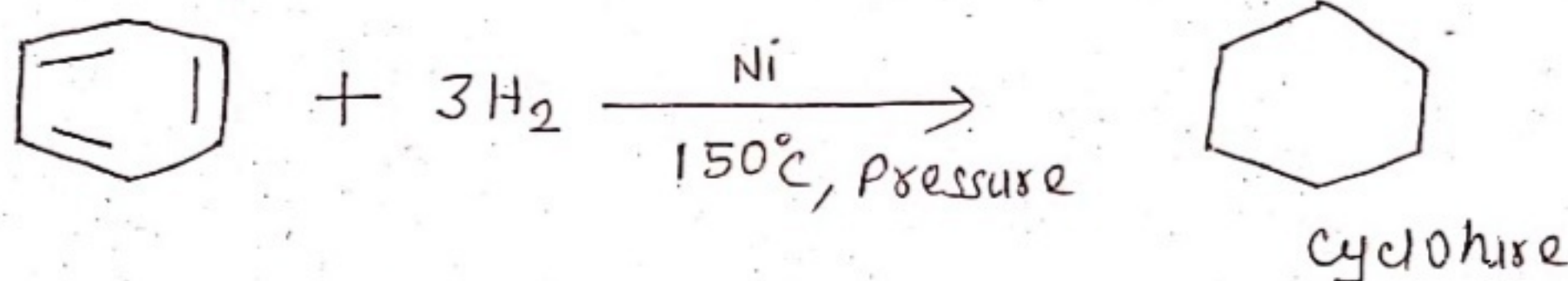
P-IV Ch-4
Ch-6 G-'C'
G-B

Chemical Reaction Of Benzene continued.....

Addition Of Hydrogen

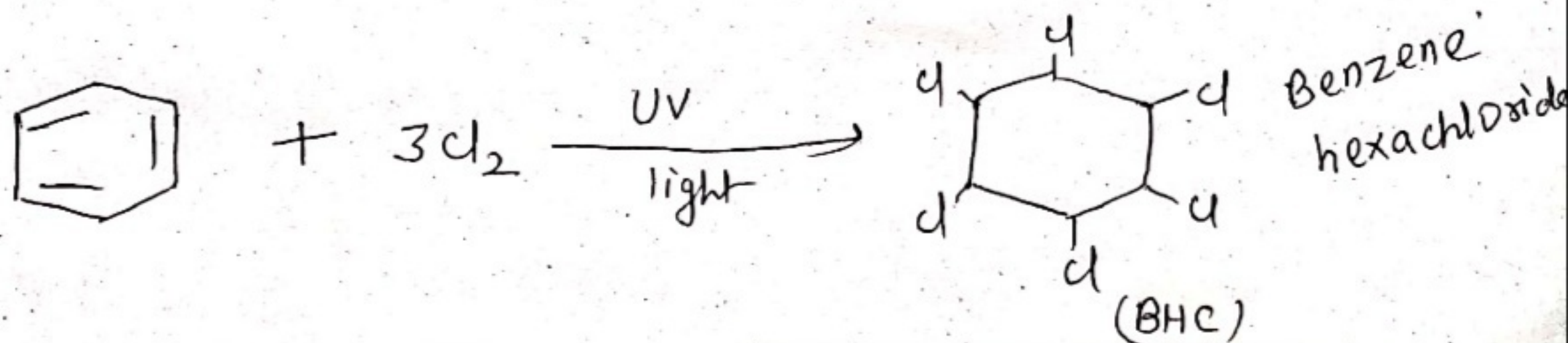
By-Dr.Rinky
Dept.of Chemistry.
J.N.College,
Madhubani

Benzene reacts with Hydrogen in the presence nickel catalyst at 150°C under pressure to form cyclohexane.



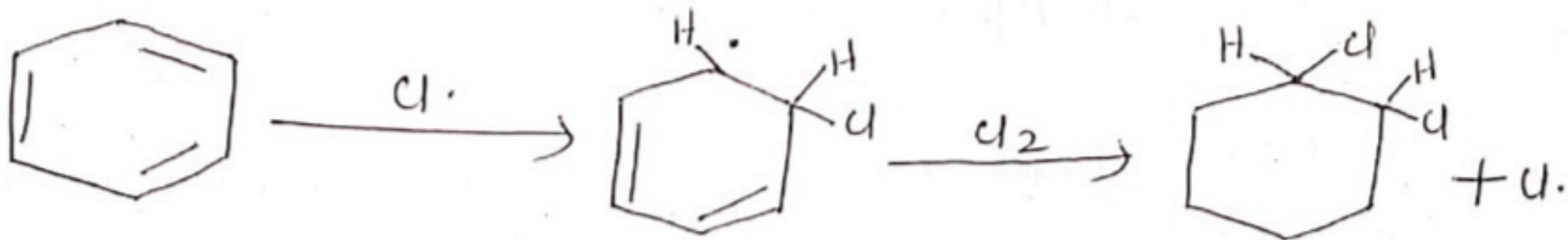
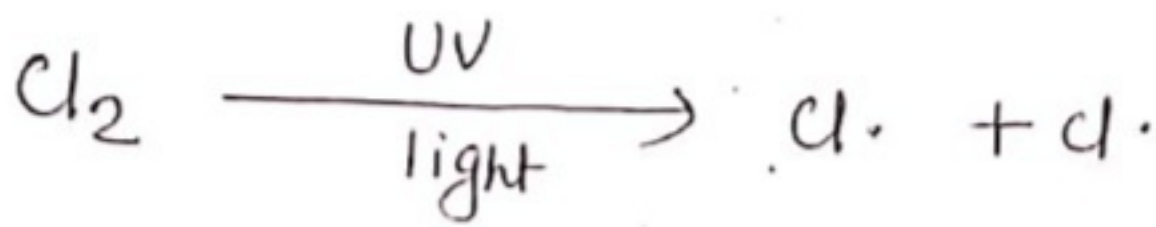
Addition Of Halogen

Benzene reacts with chlorine (or bromine) in the presence of ultraviolet light to form benzene hexachloride.

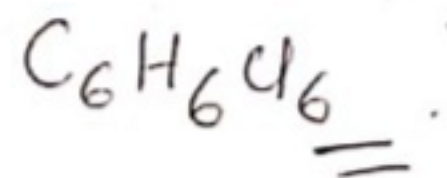


* 'BHC' is a powerful insecticide. It is sold under the name Gammahexane or Lindane.

Mechanism



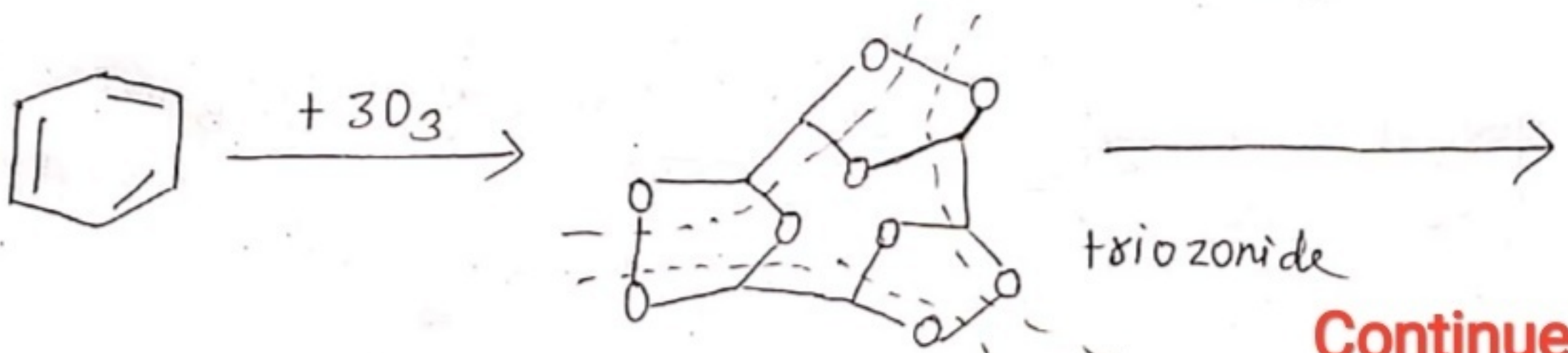
Chain Propagation



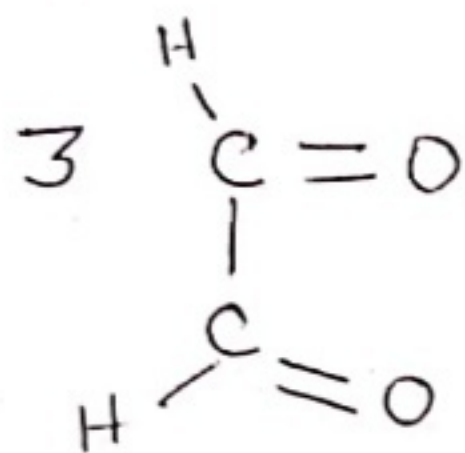
OXIDATION REACTIONS

OZONOLYSIS :-

Benzene reacts with ozone to give a triozonide which on treatment with $\text{Zn}/\text{H}_2\text{O}$ yields glyoxal.



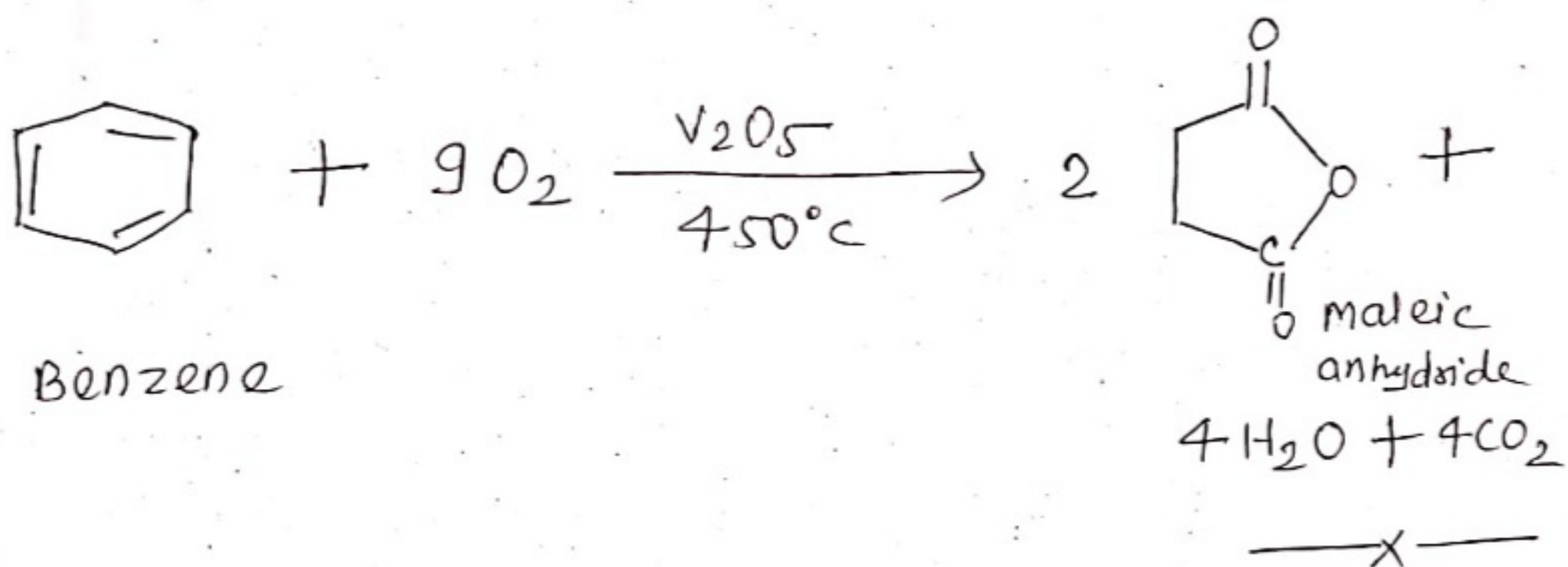
Continued..



Glyoxal

Vapour Phase Oxidation

Benzene undergoes oxidation with air/oxygen in the presence of V_2O_5 at 450°C to form maleic anhydride.



" CHEMICAL REACTION
OF
BENZENE COMPLETED "

By- Dr. Rinky
Dept. of Chemistry.
J.N. College, Madhubani.
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