

Department of Chemistry,  
Kisan Veer Mahavidyalaya, Wai.  
Date: 05.12.2022

### Notice

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All the students of M.Sc. II are hereby informed that your seminar on Organic Reaction Mechanism by Ajit S. Patil on Isotope Labeling Technique will be conducted on Tuesday 06/12/2022 at 10:00 am onward . So all students should remain present for the same.



*Dr. S. Patil*

Head  
Department of Chemistry

Department of Chemistry  
Kisan Veer Mahavidyalaya, Wai  
Attendance Sheet

M.Sc.- II 06.12.2022

Sr.No.	Roll. No.	Name	Signature	Teachers Name
1	01	Malusare Suraj Sampat	Malusare	Miss P.S.Bhosale
2	02	Pisal Ashutosh Shaikrushna	Pisal	
3	03	Gaikwad Kiran Kalidas	Gaikwad	
4	04	Savane Atash Mahaji	Savane	
5	05	Shinde Nikhil Uttam	Shinde	
6	06	Dheyyude Dheyy Dilip	Dheyyude	
7	07	Shinde Divya Krishna	Shinde	
8	08	Dhumal Komal Shivaji	Dhumal	
9	09	Shinde Vinod P.	Shinde	
10	10	Dere Mayur A.	Dere	
11	11	Kumbhar Abhishek Shamrao	Kumbhar	
12	12			
13	13	Kamble Mayawati Ravindra	Kamble	
14	14	Jadhav Priyanka Vijay	Jadhav	
15	15	Pranali Pandurang Torade	Torade	
16	16	Nikita Suryakant Kadam	Kadam	
17	17	Mone Suraj Charan	Mone	
18	18	Dhanawade Mayuri Ganesh	Dhanawade	
19	19	Kachare Dipali Uttam	Kachare	
20	20	Torade Rushikesh Ranjay	Torade	
21	21	Patil Ajit Suresh	Patil	
22	22	Mungase Saurabh D	Mungase	
23	23	Mungase Namdev M	Mungase	



JANATA SHIKSHAN SANSTHA'S  
KISAN VEER MAHAVIDYALAYA, WAI  
DEPARTMENT OF CHEMISTRY  
SEMINAR M.Sc.II  
REPORT

A seminar of Ajit s. Patil a student of M.Sc. II was conducted on Tuesday 06.12.2022 at 10:00 am on Isotope labeling Techniques. The points included in his seminar are as follows-

**Isotope Labelling Technique-** This technique is used to study the reaction mechanism. where old bond is broken and new bonds are formed.

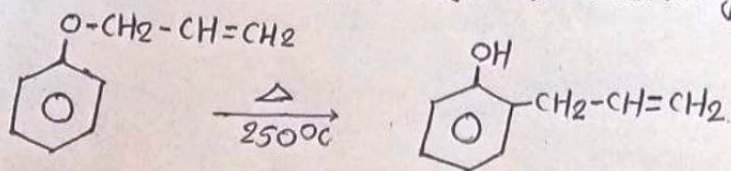
There are several isotopes  $C^{14}$ ,  $O^{18}$ ,  $P^{32}$ ,  $N^{15}$ ,  $H^2$ , etc are useful to study or to determine path of reaction.

Isotope is defined as their atomic no. should be same but atomic masses are different.

In this point we are study whether the isotope is used in the reaction is converted into product or it can be get separated from the reaction. From the following reaction.

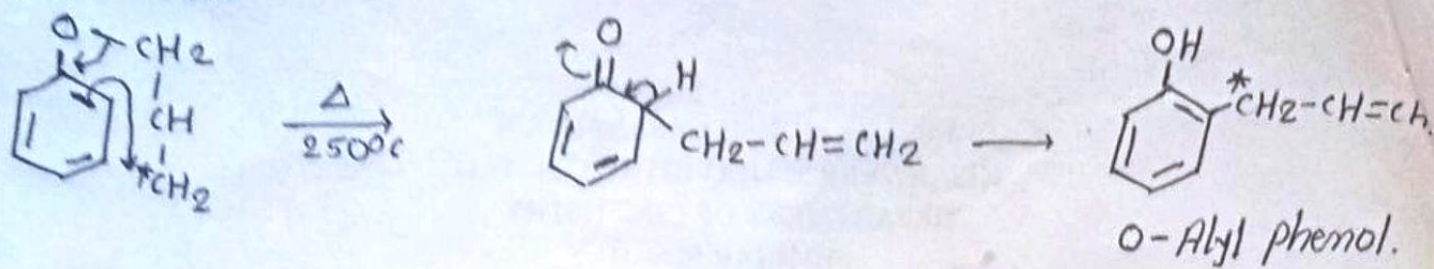
**Claisen Rearrangement Reaction.**

It is the powerful carbon carbon bond forming reaction in which when allyl phenyl ether is heated at  $200^{\circ}C$  temperature in the absence of any catalyst it rearrange to ortho allyl phenyl.

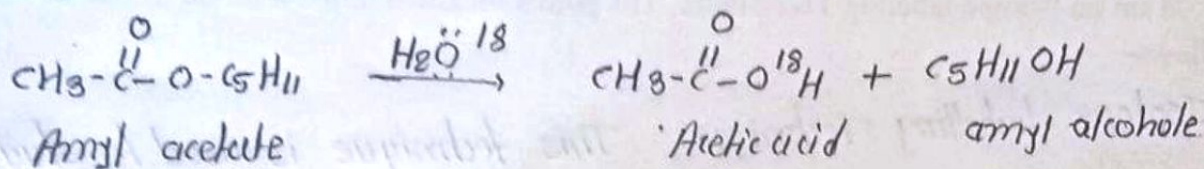


In this rearrangement whether the  $\alpha$ -carbon or  $\gamma$ -carbon attaches to ortho position this can be proved by Isotope labelling technique.

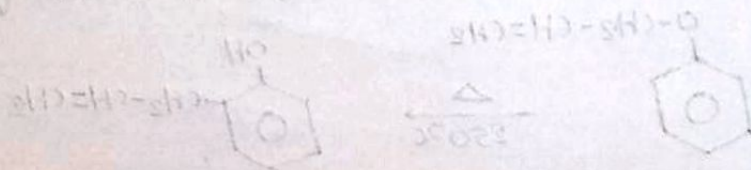
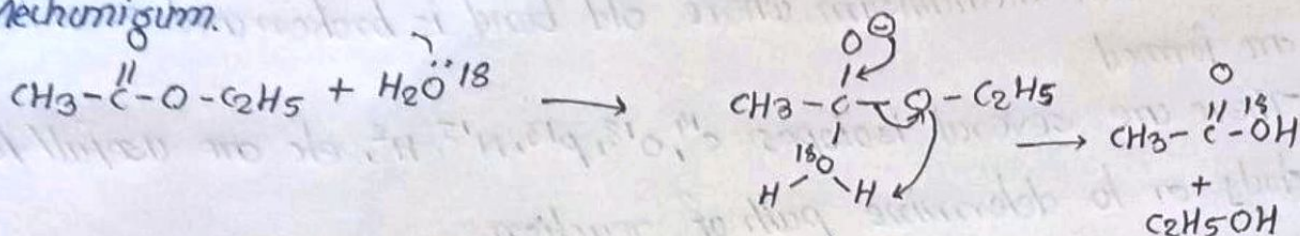
## Mechanism



## Hydrolysis of Ester.



## Mechanism.



**SEMINAR :- 2022-2023**

**M.Sc II**

**TOPIC NAME :- ISOTOPE LABELLING TECHNIQUE**

**DATE :-06/12/2022**

