

Rayat Shikshan Sanstha's  
**D. P. Bhosale College, Koregaon**  
**Department of Chemistry**  
**Experimental learning Techniques**

**Date: 23/09/2019**

The Department of Chemistry Organized two days programme on Chemistry learning with Ball stick Model and Micro Analytical Techniques which are required for Chromatographic investigation of purity of Organic Compounds. Many students don't understand the stereo chemical aspects in 2D & 3D representation of organic molecule. Many organic compounds which have written in 2D on blackboard, the students are unable to distinguish axial and equatorial forms for substituted Cyclohexane molecule. For simple illustration, Methyl Cyclohexane molecule showed the two forms in which 6 H atoms are axial and others in equatorial forms.

The students also learned how puckering of one form into another and how axial – axial interaction occurs and there is instability to the molecule and thus the concept was made clear by using ball stick model. Similarly, few questions were asked on stereochemistry and many students have replied properly.



**Dr. S. D. Jadhav delivered a talk on Stereo chemistry using Ball Stick Model.**



**Dr. S. D. Jadhav explaining theoretical Stereochemistry**

While performing routine chemistry practicals, there is need to understand micro analytical techniques which involves a perfect understanding of common analytical tools like Chromatographic investigation, Physical constant and purification of organic compounds. In this context, **Dr. S.D. Jadhav** demonstrated few practical concepts on above techniques. In order to decide purity of organic compound, there is need of Chromatographic tools like thin layer Chromatography (TLC) & Column Chromatography. The concept was made clear with the help of Binary composition of organic compounds which involves solid as well as liquid material. Students learned about polarity of solvents and how it is useful in impurity detection in organic compounds.

The polarity concept on TLC, effectively applied on column Chromatographic Separation of mixtures of Organic Compounds. They learned the concept of gradient elution in separation techniques. Unknown composition of mixtures supplied to students and students have successfully decided the solvent system for TLC as well as Column Chromatography. Students have separated Toulene and Benzaldehyde on glass Column Chromatography and also reported  $R_f$  values.



**Dr. S. D. Jadhav demonstrated TLC Techniques**


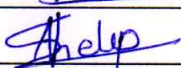
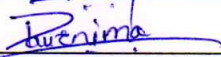
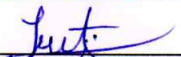
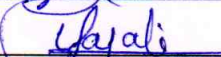
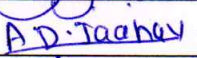
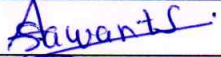

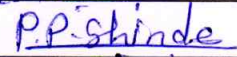
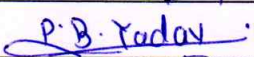
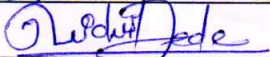

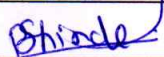
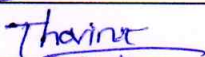
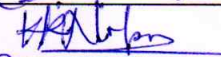
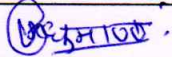
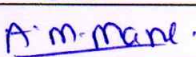
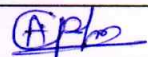
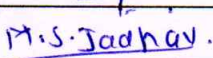


**M.Sc. I students performing Micro Analytical Techniques**

  
**Head**  
Department of Chemistry  
D. P. Bhosale College, Koregaon

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Sr. No.	Name of the Student	Signature
1.	Bhilare Dipalee Sayaji	
2.	Shinde Prachi Prashant	
3.	Varekar Pournima Suresh	
4.	Patil Vishakha mahadev	
5.	Jadhav Sayali Jyotiram	
6.	Jadhav Ankita Dilip	
7.	Sawant Snehal Shankar	
8.	Mandare Poonam Dadaso	
9.	Shinde Pallavi Prakash	
10.	Yadav Priyanka Baburao	
11.	Dede Nikhil Pandurang	
12.	Pawar Akshay Pralhad	
13.	Shinde Prashant Vitthal	
14.	Malawadkar Chaitanya Pravin	
15.	Nikam Kiran Krishandev	
16.	Dhumal Vijay Sudhakar	
17.	Mane Anirudhha Mahesh	
18.	Indulakar Ashitosh Prakash	
19.	Jadhav Maya Sambhaji	

  
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