

Sem	Course type	Course code	Course title	Credits	Total hrs /week	Total teaching periods	Total marks	
							CA	UA
VI	Discipline specific Course (DSC)	PHY 601	Quantum mechanics	3	3	45	40	60
		PHY602	Material Science	3	3	45	40	60
		PHY 603	Nuclear Physics	3	3	45	30	60
		PHY 604	Modern Physics	3	3	45	40	60
	Skill Enhancement course (SEC)	PHY 605	Basic Instrumentation Skills	3	3	45	40	60
	DSE Elective course (Any one)	PHY 606 (A) PHY 606 (B) PHY 606 (C) PHY 606 (D) PHY 606 (E)	Technical Electronics- I or Refrigeration and Air conditioning- II or Vacuum Technology-II or Microprocessor-I or Programming in C++ II	3	3	45	40	60
	DSC CORE Practicals	PHY 607	Physics Practical I	2	4 (per batch)	60	40	60
		PHY 608	Physics Practical II	2	4 (per batch)	60	40	60
		PHY 609	Physics Practical III or Project	2	4 (per batch)	60	40	60
	Non credit audit course (Any one)	AC 601(A)	Soft skill	No credit	2	30	10	0
		AC 601(B)	Yoga					
		AC 601(C)	Practicing Cleanliness					
			Total credit	24				

Note: The industrial/study tour is compulsory for students of T. Y. B. Sc. (Physics).

Exam Seat No: 343291

A
Project Report
On

**Comparative Analysis of some Organic Compounds using FTIR
Spectroscopy**

Kavayitri Bahinabai Chaudhari North Maharashtra University,
Jalgaon

Bachelore of science

By

Miss. Chaitali M. Patil

(T.Y.Bsc Physics)

Phy - 609 (Project)

Under the Guidance of

Dr. R. G. Bavane

Associate Professor

Department of Physics

Dr. Annasaheb G. D. Bendale Mahila Mahavidyalaya, Jalgaon

February 2023-24

Lewa Educational Union's

Dr. Annasaheb G. D. Bendale Mahila Mahavidyalaya,

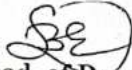
Jalgaon

2023-2024

Phy - 609 (Project)

Certificate

This is to certify that, Miss. Chaitali Mangesh Patil has completed her project work entitled '*Comparative analysis of some organic compounds using FTIR spectroscopy*' of Department of Physics at Dr. Annasaheb G. D. Bendale Mahila Mahavidyalaya, Jalgaon for the year 2023-24.



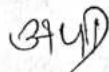
Head of Department

Prof. Dr. S. J. Baviskar




26/03/2024
Project Guide

(Dr. R. G. Bavane)



A.P. Sarode



2/4/2024

Ext. Examiner

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Miss. Chaitali M. Patil

T. Y. B. Sc. (Physics)

Conclusion

In conclusion, the comparative analysis of benzoic acid, naphthalene, acetanilide, beta-naphthol, and 2-nitroaniline using FTIR spectroscopy has provided valuable insights into their chemical compositions and structural features. Each compound exhibits characteristic absorption bands corresponding to specific functional groups, allowing for their differentiation and identification. Through this study, we have demonstrated the utility of FTIR spectroscopy as a versatile tool for the analysis of organic compounds, with applications ranging from chemical characterization to quality control in various industries. Further research in this area could involve the investigation of additional organic compounds and the development of quantitative analysis methods based on FTIR spectral data.

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