

**GREEN SYNTHESIS AND CHARACTERIZATION OF COPPER OXIDE  
NANOPARTICLE USING BUTEAMONOSPERMA LEAF**

**RESEARCH PROJECT SUBMITTED TO**

**SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE**



**FOR THE DEGREE OF**

**MASTER OF SCIENCE**

**IN**

**ORGANIC CHEMISTRY**

**UNDER THE FACULTY OF SCIENCE**

**BY**

**MR. VIJAY SHIVNARESH YADAV**

**UNDER THE GUIDANCE OF**

**MR. JAGDISH GHOTEKAR SIR**

**DEPARTMENT OF CHEMISTRY**

**G.M.D. ARTS, B.W. COMMERCE AND SCIENCE COLLEGE, SINNAR  
422103**

**OCT/NOV 2024-2025**



Maratha Vidya Prasarak Samaj's

G.M.D. ARTS, B.W. COMMERCE AND SCIENCE COLLEGE,

SINNAR, DIST- NASHIK

## DEPARTMENT OF CHEMISTRY

This is to certify that the work incorporated in the project entitled

**Topic name:** Green synthesis of copper oxide nanoparticle using buteamonosperma leaf.

Was satisfactorily carried out by **Mr. Vijay Shivnaresh Yadav** of **M.Sc. Organic Chemistry**. He has completed this project under my supervision and guidance during **Academic Year 2024 -2025**. This project work submitted by his original and the scientific information obtain from other sources have been acknowledged.

**Mr. Jagdish Ghotekar Sir**

(Project Guide)




Maratha Vidya Prasarak Samaj's  
G.M.D. ARTS, B.W. COMMERCE AND SCIENCE COLLEGE,  
SINNAR, DIST- NASHIK  
DEPARTMENT OF CHEMISTRY


## CERTIFICATE

This is to certify that PG dissertation entitled Synthesis **Green Synthesis** and Characterization of Copper Oxide Nanoparticle using **Buteamonosperma leaf** submitted by **Mr. Vijay Shivnaresh Yadav** and it was carried out by the candidate under the supervision of **Mr. Jagdish Ghotekar Sir**. He has successfully completed the project work in Organic Chemistry (**CHO-607**) during the Sem-III of academic year 2024-2025.


Date:


Place: Sinnar


  
**Mr. Jagdish Ghotekar**  
(Project Guide)

  
**Prof. (Dr.) M.R. Gaware**  
**HEAD**  
**DEPARTMENT OF CHEMISTRY**  
G.M.D. Arts, B.W. Commerce  
and Science College, Sinnar

  
**Dr. P.V. Rasal**  
(Principal)  
G.M.D. Arts, B.W. Commerce and  
Science College, Sinnar, Dist. Nashik

  
**Internal Examiner**

  
**External Examiner**

  
**External Examiner**

## DECLARATION

I hereby declare that the presented Research Project on Green synthesis of copper oxide nanoparticle using buteamonosperma leaf is uniquely prepared by me at G.M.D. Arts, B.W. Commerce And Science College Sinnar under the guidance of Mr. Jagdish Ghotekar Sir.

Place: Sinnar

Date:

Sign- 

Name-Vijay Shivnaresh Yadav

## ACKNOWLEDEMENT

- I would like to thank M.V.P. Samaj's G.M.D. Arts B.W. Commerce and Science College Sinnar for providing me the necessary resources, infrastructural, and facilities to carry out this project.
- I would like to thank our College Principal Dr. P. V. Rasal for constant support and providing infrastructural facility for this project work.
- I would like to thank, HOD Prof. Dr.M.R. Gaware for his constructive help during project.
- I would like to thank, Asst.Prof.Mr. Jagdish Ghotekar (Project Guide), for their constant Encouragement, insightful feedback and expert guidance that helped me to navigate through the various challenges of this project .
- I would like to thank all the faculty members of the Department of Chemistry, for Imparting me with the theoretical and practical knowledge necessary to complete this project.
- I would like to thank my classmate and colleagues, for their feedback suggestion and stimulating discussions that enriched my understanding of the subject matter.

Sign: - 

Name: - Vijaykumar Shivnaresh Yadav