

**GREEN SYNTHESIS AND CHARACTERIZATION OF ZNO
NANOPARTICLES USING BUTEA MONOSPERMA LEAF EXTRACT.**

**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

MISS. SEJAL GANPAT GORDE

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

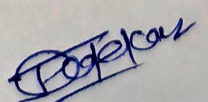
G.M.D. ARTS, B.W. COMMERCE AND SCIENCE COLLEGE, SINNAR,
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DEPARTMENT OF CHEMISTRY

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

Topic name: Green synthesis and characterization of zno nanoparticles using
butea monosperma leaf extract.

Was satisfactorily carried out by **Miss. Sejal Ganpat Gorde 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 obtained from other sources have been acknowledged.


Mr. Jagdish Ghotekar sir
(Project Guide)



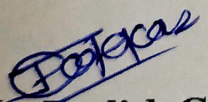
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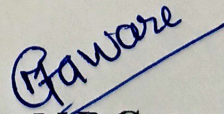
CERTIFICATE

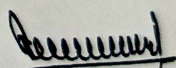
This is to certify that PG dissertation entitled synthesis "**Green synthesis and characterization of zno nanoparticles using butea monosperma leaf extract.**". submitted by **Miss. Sejal Ganpat Gorde** and it was carried out by the candidate under the supervision of **Mr. Jagdish Ghotekar Sir**. He has successfully completed the project work in Organic Chemistry (**CHO-607**) during the Sem-III of academic year 2024-2025.

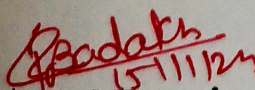
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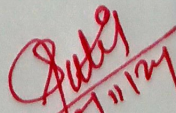
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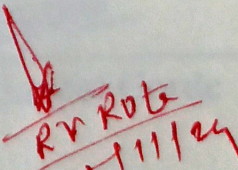

Mr. Jagdish Ghotekar
(Project Guide)


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 and characterization of zno nanoparticles using butea monosperma leaf extract**. 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.

I would like to thank our College Principal Dr. P. V. Yash for constant support and Providing infrastructural facility for this project work.

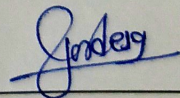
> I would like to thank, HOD Prof. Dr. M. R. Ghorat for his constructive help during project.

> I would like to thank, A 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 friendly suggestion and stimulating discussions that enriched my understanding of the subject matter.

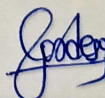
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Date

Sign - 
Name-Sejal Ganpat Gorde

ACKNOWLEDGEMENT

- 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.
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Sign :-



Name:- Gorde Sejal Ganpat