GREEN SYNTHESIS AND CHARECTERIZATION OF ZINC OXIDE NANOPARTICAL USING MANGIFERA INDICA 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. Sangale Radhika Uttam

UNDER THE GUIDANCE OF

Asst. Prof. Miss. Ankita Rayate Mam

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 imporated in the incorrepted in the project entitled.

Topic Name: GREEN SYNTHESIS AND CHARACTERIZATION OF Zno NANOPARTICLES

Was satisfactorily carried out by Miss.Sangale Radhika Uttam 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.

Asst.Prof.Miss.Ankita Rayate Mam
(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 Zinc Oxide Nanopartical Using Mangifera Indica Leaf Extract submitted by Miss. Sangale Radhika Uttam and it was carried out by the candidate under the supervision of Miss. Ankita Rayate Mam. He has successfully completed the project work in Organic Chemistry (CHO-607) during the Sem-III of academic year 2024-2025.

Date: 1 4 1 11 20 2 4

Place: Sinnar

Miss.Ankita Rayate Mam (Project Guide)

DEPARTMENT OF CHEMISTRY G.M.D. Arts, B.W. Commerce and Science College, Sinnar

Haware

External Examiner

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

External Examiner

Internal Examiner

DECLARATION

I hereby declare that the presented Research Project on Green Synthesis and Characterization of Zinc Oxide Using Mangifera Indica Leaf Extract is uniquely prepared by me at G.M.D. Arts, B.W. Commerce And Science College Sinnar under the guidance of Miss.Ankita Rayate Mam.

Place: Sinnar

Date: 14/11/2024

Sign- Rusongle.

Name-Sangale Radhika Uttam

ACKNOWLEDEMENT

- 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 Sir for constant support and providing infrastructural facility for this project work.
- > I would like to thank HOD Prof. Dr.M.R. Gaware Sir for his constructive help during project.
- I would like to thank Asst.Prof.Miss.Ankita Rayate Mam (Project Guide), for their constant Encouragement, insightful constant Encouragement 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- Rusange .
Name-Sangale Radhika Uttam