

**GREEN SYNTHESIS AND CHARACTERIZATION OF  
MAGNESIM OXIDE NANOPARTICLE USING THUJA PLANT  
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.GUNJAL VAISHALI KONDHAJI**

**UNDER THE GUIDANCE OF  
MR. MILIND MESHARAM**

**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

### CERTIFICATE

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

**Topic name** Green synthesis and characterization of magnesim oxide nanoparticle using  
thuja plant leaf extract.

Has satisfactorily carried out by **Miss.Gunjal Vaishali Kondhaji**.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.Milind Meshram

(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 **Miss.Gunjal Vaishali Kondhaji**.studying in MSc-II (Organic Chemistry) at **M.V.P. Samaj's G.M.D. Arts, B.W. Commerce and Science College, Sinnar**. He has successfully completed the project work in Organic Chemistry (**CHO-607**) during the Sem-III of academic year 2024-2025

Date: 15/11/2024

Place: Sinnar.

Mr. Milind Meshram  
(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)  
**PRINCIPAL**

G.M.D.Arts, B.W.Commerce and  
Science College, Sinnar, Dist. Nashik

**Internal Examiner**  
15/11/24

**Internal Examiner**  
15/11/24

**External Examiner**  
15/11/24



## DECLARATION

I hereby declare that the presented Research Project on "Green synthesis and characterization of magnesium oxide nanoparticle using thuja plant leaf extract" is uniquely prepared by me at G.M.D. Arts, B.W. Commerce and Science College Sinnar under the guidance of Mr. Milind Meshram Sir.

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. Gawari for his constructive help during project.

I would like to thank, Mr. Milind Meshram (Project Guide), for their constant encouragement, insightful feedback, and expert guidance that helped me to navigate through the various challenges of this project.

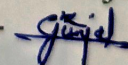
I would like to thank all the faculty members of the Department of Chemistry, for imparting me with the theoretical and practical knowledge necessary to complete this project.

I would like to thank my classmate and colleagues, for their feedback suggestion and stimulating discussions that enriched my understanding of the subject matter.

Place: sinnar

.Date: 15/11/2024

Name:-Gunjal Vaishali Kondhaji

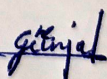
Sign- 

Name: GUNJAL VAISHALI KONDHAJI



## ACKNOWLEDGEMENT

- I would like to thank M.V.P. Samaj's G. M. D. Arts B. W. Commerce and Science College Sinner 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, **Mr.** Milind Meshram (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- GUNJAL VAISHALI KONDAJI