

**SYNTHESIS AND CHARACTERIZATION OF MAGNESIUM DOPED
NICKEL OXIDE NANOPARTICLE USING SOL-GEL METHOD**

**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. SAMADHAN VILAS JADHAV

UNDER THE GUIDANCE OF

MR. BALASAHEB MHASKE SIR

DEPARTMENT OF CHEMISTRY

**G.M.D. ARTS, B.W. COMMERCE AND SCIENCE COLLEGE, SINNAR
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OCT/NOV 2024-2025



Maratha Vidya Prasarak Samaj's

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

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

Topic name: Synthesis and Characterization of Magnesium doped Nickel oxide NPs
using sol-gel method.

Was satisfactorily carried out by **Mr. Samadhan Vilas Jadhav** 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. Balasaheb Mhaske Sir

(Project Guide)




Maratha Vidya Prasarak Samaj's
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DEPARTMENT OF CHEMISTRY

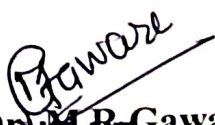
CERTIFICATE

This is to certify that PG dissertation entitled Synthesis and Characterization of Magnesium doped Nickel Oxide Nanoparticle Using sol-gel method submitted by **Mr. Samadhan Vilas Jadhav** and it was carried out by the candidate under the supervision of **Mr. Balasaheb Mhaske 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. Balasaheb Mhaske
(Project Guide)


Prof. (Dr.) M. R. Gaware
HEAD
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Internal Examiner



External Examiner


External Examiner

DECLARATION

I hereby declare that the presented Research Project on Synthesis and Characterization of Magnesium doped Nickel oxide NPs using sol-gel method is uniquely prepared by me at G.M.D. Arts, B.W. Commerce And Science College Sinnar under the guidance of Mr. Balasaheb Mhaske Sir.

Place: Sinnar
Date:

Sign- 
Name-Samadhan Vilas Jadhav

ACKNOWLEDGEMENT

- The success and outcome of this project required a lot of guidance and assistance from many people. All that I have done is only due to such supervision and assistance and I would never forget to thank them.
- I would like to thank M.V.P. Samaj's **G.M.D. Arts, B.W. Commerce and Science College Sinnar**, for providing me with the necessary resources, infrastructure and facilities to carry out this project.
- I respect and am grateful to our Respected Principal **Dr.P.V.Rasal Sir** for providing me with an opportunity to do the project and giving all the support and guidance which helped me to complete the project successfully.
- I would like to thank, our HoD **Prof. (Dr) M.R. Gaware Sir** for his constructive help during project.
- I would like to thank **Mr. Balasaheb Mhaske Sir (Project Guide)**, for their constant encouragement, insightful feedback and expert guidance that helped me to navigate through the various challenges of this project.
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- I would like to thank my classmates and colleagues, for their feedback, suggestions, and stimulating discussions that enriched my understanding of the subject matter.

Sign



Samadhan Vilas Jadhav