

**GREEN SYNTHESIS OF MnO_2 NANORODS USING PHYLLANTHUS AMARUS PLANT
AND THEIR LUMINESCENCE STUDIES.**

**“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. ANDHALE AKASH SAHEBRAO

DEPARTMENT OF CHEMISTRY

UNDER THE GUIDANCE OF

ASST. PROF. Mr. BALASAHEB MASKE

DEPARTMENT OF CHEMISTRY

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

**WORKPLACE
DEPARTMENT OF CHEMISTRY AND RESEARCH CENTER
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 imported in the uncorrupted in the project entitled.

Topic name: Green synthesis of MnO_2 Nano rods using phyllanthus amarus plant and their luminescence studies.

Was satisfactorily carried out by **Mr. Andhale Akash Sahebrao** 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

B.D. Maske
22.04.2025

Asst.Prof. Mr.Balasaheb Maske
(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 of MnO_2 nanorods using to Phyllanthus amarus plant and their luminescence studies submitted by Mr. Akash Sahebrao Andhale and the candidate under the supervision of Mr. Balasaheb Mhaske carried it out. He has successfully completed the project work in Organic Chemistry (CHO-656RP) during the Sem-IV of academic year 2024-2025.

Date:

Place: Sinnar

B. Maske
22.04.2025
Mr. Balasaheb Maske
(Project Guide)

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

B. Maske
25/04/25
Internal Examiner

Examined
25/04/25
External Examiner

N. U. Patil
Dr. N. U. Patil
PRINCIPAL
(Principal)
G.M.D. Arts, B.W. Commerce and
Science College, Sinnar, Dist. Nashik
Examined
25/04/25
External Examiner

DECLARATION

We certify that we read this thesis Design, Synthesis of MnO_2 (manganese dioxide) for the award of the degree of Master of Science in Organic Chemistry at Department of Chemistry, G.M.D. Arts, B. W. Commerce and Science College, Sinnar, Nashik. Carried out by the candidate under the supervision of. **Asst. Prof. Mr. Balasaheb Maske sir** (Assistant professor, Department of Chemistry, G.M.D. Arts, B. W. Commerce and Science College, Sinnar, Nashik) during Academic year 2024-2025.

Name- Andhale Akash Sahebrao

M. Sc. (Organic Chemistry)

**ANALYTICAL METHOD VALIDATION FOR ASSAY OF VALSARTAN IN VALSARTAN
TABLETS BY UV-SPECTROPHOTOMETER**

**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. Avhad Pratiksha Sopan

UNDER THE GUIDANCE OF

Mr. Jagdish Ghotekar

DEPARTMENT OF CHEMISTRY

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

Year- 2024-25



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: **ANALYTICAL METHOD VALIDATION FOR ASSAY OF VALSARTAN IN VALSARTAN TABLETS BY UV-SPECTROPHOTOMETER**

Was satisfactorily carried out by **Miss. Pratiksha Sopan Avhad** of M.Sc.II Organic Chemistry. She 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
(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 **ANALYTICAL METHOD VALIDATION FOR ASSAY OF VALSARTAN IN VALSARTAN TABLETS BY UV-SPECTROPHOTOMETER** submitted by **Miss. Pratiksha Sopan Avhad** and it was carried out by the candidate under the supervision of **Mr. Jagdish Ghotekar**. She has successfully completed the project work in Organic Chemistry (**CHO-681**) during the Sem-IV of academic year 2024-2025.

Date: 22/4/2025
Place: Sinnar

Mr. Jagdish Ghotekar
(Project Guide)

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

Prof. (Dr.) N.U. Patil
(Principal)
PRINCIPAL

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

25/04/25
Internal Examiner
25/04/25
External Examiner
25/04/25
External Examiner

DECLARATION

I hereby declare that the presented Research Project on **ANALYTICAL METHOD VALIDATION FOR ASSAY OF VALSARTAN IN VALSARTAN TABLETS BY UV-SPECTROPHOTOMETER** is uniquely prepared by me at **ARNI Analytical Center Nashik** under the guidance of **Mr. Jagdish Ghotekar**.

- ☐ I would like to thank M.V.P. Karmali Institute of Pharmacy, Nashik for providing me with the necessary facilities and infrastructure for the completion of this project.
- ☐ I express my gratitude to our Respected Principal, Dr. P. V. Karmali for providing me with the 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. Karmali for his constant help during the project.
- ☐ I would like to thank Mr. Jagdish Ghotekar (Project Guide) for his constant encouragement, helpful 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 and the supporting staff for supporting me with the theoretical and practical knowledge necessary to complete this project.
- ☐ I would like to thank my classmates and colleagues for their feedback, suggestions, and stimulating discussions that enriched my understanding of the subject matter.

Place: Sinnar

Date: 22/4/2025

Sign



Name-Pratiksha Sopan Avhad

**“VALIDATION OF CAFFEINE DOSSAGE FROM BY USING
UV-SPECTROSCOPY”**

**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.Belote Abhijit kamlakar

UNDER THE GUIDANCE OF

MR.Dhanraj.Bahiram Sir

DEPARTMENT OF CHEMISTRY

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

MAR/APR 2024-2025



Maratha Vidya Prasarak Samaj's

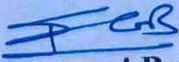
**G.M.D. ARTS, B.W. COMMERCE AND SCIENCE COLLEGE, SINNAR, DIST-
NASHIK**

DEPARTMENT OF CHEMISTRY

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

**Topic name: "VALIDATION OF CAFFEINE DOSSAGE FROM BY USING UV-
SPECTROSCOPY"**

Was satisfactorily carried out by **Mr. Belote Abhijit kamlakar 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. Dhanraj Bahiram 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

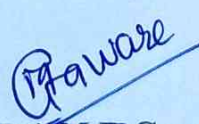
This is to certify that PG dissertation entitled synthesis "VALIDATION OF CAFFEINE DOSSAGE FROM BY USING UV-SPECTROSCOPY". submitted by **Mr. Belote Abhijit kamlakar** and it was carried out by the candidate under the supervision of **Mr. Dhanraj Bahiram**. He has successfully completed the project work in Organic Chemistry (CHO-681) during the Sem-IV of academic year 2024-2025.

Date: 22/04/2025

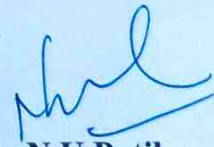
Place: Sinnar


Mr. Dhanraj Bahiram
(Project Guide)


Internal Examiner


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


External Examiner


Dr. N. U. Patil
(Principal)
Principal
G.M.D. Arts, B.W. Commerce and
Science College, Sinnar, Dist. Nashik


External Examiner

DECLARATION

I hereby declare that the presented Research Project on “**VALIDATION OF CAFFEINE DOSSAGE FROM BY USING UV-SPECTROSCOPY**” at Arni Analytical Training center Nashik under the guidance of Mr.Dhanraj Bahiram.

I would like to thank my College for providing me the necessary resources, infrastructural, and facilities to carry out this project.

I would like to thank our College Principal Prof.Dr.N.U.Patil sir for constant support and providing infrastructure 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.Dhanraj Bahiram (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, for their feedback suggestion and stimulating discussions that enriched my understanding of the subject matter.

Place: Sinnar

Date: 22/04/2025

Sign- Belote

Name – Belote Abhijit Kamalakar

Sign- Belote

Name- Abhijit Kamalakar Belote

Synthesized Ni-doped Indium oxide as a reusable catalyst for one pot three component synthesis of 2-Amino-7-Hydroxy-4-Phenyl-4H-Chromene-3-Carbonitrile in water medium and their antimicrobial molecular docking studies.

**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. Pratik Sampat Bhabad

UNDER THE GUIDANCE OF

Mr. Jagdish Ghotekar

DEPARTMENT OF CHEMISTRY

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

422103

Year- 2024-25




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: **Synthesized Ni-doped Indium oxide as a reusable catalyst for one pot three component synthesis of 2-Amino-7-Hydroxy-4-Phenyl-4H-Chromene-3-Carbonitrile in water medium and their antimicrobial molecular docking studies.**

Was satisfactorily carried out by **Mr. Pratik Sampat Bhabad** of M.Sc.II 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
(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 **Synthesized Ni-doped Indium oxide as a reusable catalyst for one pot three component synthesis of 2-Amino-7-Hydroxy-4-Phenyl-4H-Chromene-3-Carbonitrile in water medium and their antimicrobial molecular docking studies** submitted by **Mr. Pratik Sampat Bhabad** and it was carried out by the candidate under the supervision of **Mr. Jagdish Ghotekar**. He has successfully completed the project work in Organic Chemistry (CHO-681) during the Sem-IV of academic year 2024-2025.

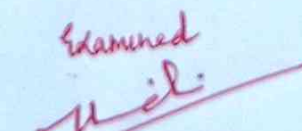
Date: **22/04/2025**
Place: Sinnar

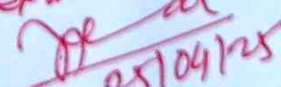

Mr. Jagdish Ghotekar
(Project Guide)


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


Prof. (Dr.) N. U. Patil
(Principal)
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 **Synthesized Ni-doped Indium oxide as a reusable catalyst for one pot three component synthesis of 2-Amino-7-Hydroxy-4-Phenyl-4H-Chromene-3-Carbonitrile in water medium and their antimicrobial molecular docking studies** is uniquely prepared by me at **G.M.D. Arts, B.W. Commerce And Science College Sinnar** under the guidance of **Mr. Jagdish Ghotekar**.

- ☐ I respect and am grateful to our Respected Principal Prof. Dr. H. B. Patil 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 Hon. Prof. Dr. H. B. Patil, Governor Sir for his constructive help during project.
- ☐ I would like to thank Mr. Jagdish Ghotekar (Project Guide) for their constant encouragement, support and guidance that helped me to navigate through the various challenges of the project.
- ☐ I would like to thank all the faculty members of the Department of Chemistry and the supporting staff for equipping me with the theoretical and practical knowledge necessary to complete the project.
- ☐ I would like to thank my classmates and colleagues for their feedback, suggestions, and stimulating discussions that enriched my understanding of the project.

Place: Sinnar

Date: 22/04/2025

Sign- 

Name-Pratik Sampat Bhabad

**"SIMULTANEOUS ESTIMATION OF VILDAGLIPTIN FROM
VILDAGLIPTIN TABLETS "**

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 Bhagat Rushikesh Sunil

UNDER THE GUIDANCE OF

MISS G.B.HANDGE

DEPARTMENT OF CHEMISTRY

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



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: "SIMULTANEOUS ESTIMATION OF VILDAGLIPTIN
FROM VILDAGLIPTIN TABLETS "**

Was satisfactorily carried out by Mr. Bhagat Rushikesh Sunil 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.

MISS G.B.HANDGE

(Project Guide)



Maratha Vidya Prasarak Samaj's

G.M.D. ARTS, B.W. COMMERCE AND SCIENCE COLLEGE,
SINNAR, DIST- NASHIK

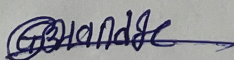
DEPARTMENT OF CHEMISTRY

CERTIFICATE

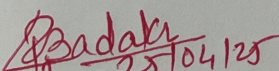
This is to certify that PG dissertation entitled synthesis ““Simultannious Estimation Of Vildagliptin From Vildagliptin Tablets ”. submitted by **Mr. Bhagat Rushikesh Sunil** and it was carried out by the candidate under the supervision of **MISS**. He has successfully completed the project work in Organic Chemistry (**CHO681**) during the Sem-IV of academic year 2024-2025.

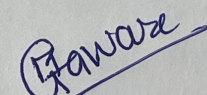
Date:

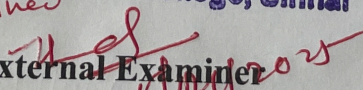
Place: Sinnar

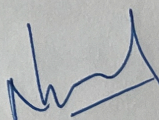


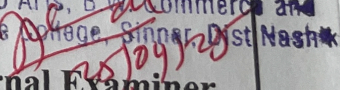
Ms G.B. Handge
(Project Guide)


25/04/25
Internal Examiner


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


25/04/2025
External Examiner


Dr. N.U. Patil

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

25/04/25
External Examiner
examined

DECLARATION

I hereby declare that the presented Research Project on **"SIMULTANEOUS ESTIMATION OF VILDAGLIPTIN FROM VILDAGLIPTIN TABLETS"**.
At G.M.D.Arts B.W.Commerce And Science college sinnar under the guidance of
Ms.G.B.Handge mam.

Place: Sinnar

Sign- Rushikesh

Date: 25-4-25

Name - Bhagat Rushikesh Sunil

**“ANALYTICAL METHOD VALIDATION FOR ASSAY OF AZELNIDIPINE
IN AZELNIDIPINE
TABLETS BY UV-SPECTROPHOTOMETER”**

RESEARCH PROJECT SUBMITTED TO

SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE



**FOR THE DEGREE OF
MASTER OF SCIENCE**

IN

ORGANIC CHEMISTRY

UNDER THE FACULTY OF SCIENCE

Miss.Gorde Sejal Ganpat

UNDER THE GUIDANCE OF

Mr. D.G. Bahiram

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: "ANALYTICAL METHOD VALIDATION FOR ASSAY OF AZELNIDIPINE IN
AZELNIDIPINE TABLETS BY UV-SPECTROPHOTOMETER"**

Was satisfactorily carried out by **Miss. Gorde Sejal Ganpat of M.Sc. Organic Chemistry.** She has completed this project under my supervision and guidance during Academic Year 2024 -2025. This project work submitted by her original and the scientific information obtain from other sources have been acknowledged.

Mr. D.G. Bahiram
(Project Guide)



Maratha Vidya Prasarak Samaj's

G.M.D. ARTS, B.W. COMMERCE AND SCIENCE COLLEGE,
SINNAR, DIST- NASHIK


DEPARTMENT OF CHEMISTRY

CERTIFICATE

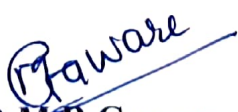
This is to certify that PG dissertation entitled synthesis "Analytical Method Validation of Assay of AZELNIDIPINE IN AZELNIDIPINE Tablets by UV-Spectrophotometer". submitted by Miss. Gorde Sejal Ganpat and it was carried out by the candidate under the supervision of Mr. D.G. Bahiram Sir. She has successfully completed the project work in Organic Chemistry (CHO-681) during the Sem-IV of academic year 2024-2025.

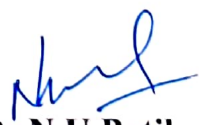
Date:

Place: Sinnar


Mr. D.G. Bahiram
(Project Guide)


Internal Examiner


Prof. (Dr.) M.R. Gaware
HEAD
DEPARTMENT OF CHEMISTRY
(G.M.D. Arts, B.W. Commerce
and Science College, Sinnar
examined
25/04/25
External Examiner


Dr. N.U. Patil
(Principal,
G.M.D. Arts, B.W. Commerce and
Science College, Sinnar, Dist. Nashik
examined
25/04/25
External Examiner

DECLARATION

I hereby declare that the presented Research Project on “**Analytical Method Validation of Assay of AZELNIDIPINE IN AZELNIDIPINE Tablets by UV-Spectrophotometer**”. at(Arni Analytical Training center Nashik)under the guidance of Mr.D.G.Bahiram Sir.

Place: Sinnar

Date:

Sign- _____



Name - Gorde Sejal Ganpat

**ANALYTICAL METHOD VALIDATION FOR ASSAY OF
OMEPRAZOLE IN OMEPRAZOLE CAPSULES**

**BY
UV-SPECTROPHOTOMETER**

**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. Vaishali Kondaji Gunjal

UNDER THE GUIDANCE OF

Mrs. K.N. More

DEPARTMENT OF CHEMISTRY

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

Year- 2024-25



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: **ANALYTICAL METHOD VALIDATION FOR ASSAY OF OMEPRAZOLE
IN OMEPRAZOLE CAPSULES BY UV-SPECTROPHOTOMETER**

Was satisfactorily carried out by **Miss. Vaishali Kondaji Gunjal** of M.Sc.II 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.

K. N. More
24/04/25
Mrs. K.N More
(Project Guide)



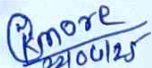
Maratha Vidya Prasarak Samaj's
G.M.D. ARTS, B.W. COMMERCE AND SCIENCE COLLEGE,
SINNAR, DIST- NASHIK
DEPARTMENT OF CHEMISTRY

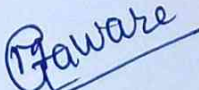
CERTIFICATE


This is to certify that PG dissertation entitled **ANALYTICAL METHOD VALIDATION FOR ASSAY OF OMEPRAZOLE IN OMEPRAZOLE CAPSULES BY UV-SPECTROPHOTOMETER** submitted by **Miss. Vaishali Kondaji Gunjal** and it was carried out by the candidate under the supervision of **Mrs. K.N More**. He has successfully completed the project work in Organic Chemistry (**CHO-681**) during the Sem-IV of academic year 2024-2025.

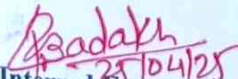
Date: 22/04/25

Place: Sinnar


Mr. K.N More
(Project Guide)


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


Prof. (Dr.) N.U. Patil
(Principal)
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 **ANALYTICAL METHOD VALIDATION FOR ASSAY OF OMEPRAZOLE IN OMEPRAZOLE CAPSULS BY UV-SPECTROPHOTOMETER** is uniquely prepared by me at **ARNI Analytical Center Nashik** under the guidance of **Mrs. K.N More**.

Place: Sinnar

Date: 22/04/2025

Sign- *Vaishali*
Name- Vaishali Kondaji Gunjal

ANALYTICAL METHODS & VALIDATION OF AZITHROMYCIN

BY USING UV SPECTROSCOPY

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. Gurav Aniket Subhash

UNDER THE GUIDANCE OF

Mr. Jagdish Ghotekar

DEPARTMENT OF CHEMISTRY

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

Year- 2024-25



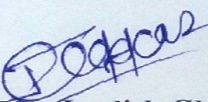
Maratha Vidya Prasarak Samaj's

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 : “ **Validation of Azithromycin by using UV spectroscopy**”.

Was satisfactorily carried out by **Mr. Gurav Aniket Subhash** of M.Sc. II Organic Chemistry. she has completed this project under my supervision and guidance during Academic Year 2024 -2025. This project work submitted by her original and the scientific information obtained from other sources have been acknowledged.


Mr. Jagdish Ghotekar
(Project Guide)



Maratha Vidya Prasarak Samaj's

G.M.D. ARTS, B.W. COMMERCE AND SCIENCE COLLEGE,
SINNAR, DIST- NASHIK

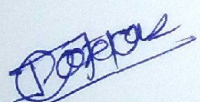
DEPARTMENT OF CHEMISTRY

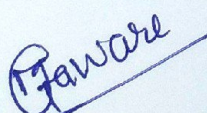
CERTIFICATE

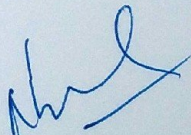
This is to certify that PG dissertation **Validation of Azithromycin by using UV spectroscopy** submitted **Mr. Gurav Aniket Subhash** and it was carried out by the candidate under the supervision of **Mr. Jagdish Ghotekar**. she has successfully completed the project work in Organic Chemistry (**CHO-681**) during the Sem-4 of academic year 2024-2025.

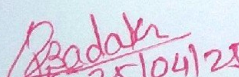
Date: 22/04/2025

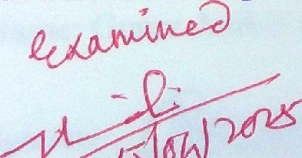
Place: Sinnar

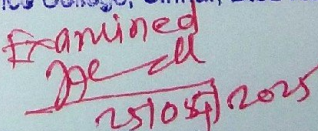

Mr. Jagdish Ghotekar
(Project Guide)


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


Prof. Dr. N U Patil sir
(Principal)
PRINCIPAL
G.M.D.Arts, B.W.Commerce and
Science College, Sinnar, Dist. Nashik


25/04/25
Internal Examiner


25/04/2025
External Examiner


25/04/2025
External Examiner

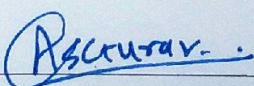
DECLARATION BY THE CANDIDATE

I hereby declared that this project entitled “ANALYTICAL METHOD VALIDATION FOR ASSAY OF AZITHROMYCIN TABLETS BY UV-SPECTROPHOTOMETER” is uniquely prepared by me at ARNY ANALYTICAL Training Center Nashik project work carried out by under the Guidance of Mr. Jagdish Ghotekar.

Date:- 22/04/2025

Place :- Sinner

Name: Gurav Aniket Subhash

Signature : 

**“EXPLORATION OF PHOTOCATALYTIC PERFORMANCE OF
CaO (CALCIUM OXIDE) FOR DEGRADATION METHYLENE
BLUE DYE AND IT’S COMPARATIVE STUDY”**

RESEARCH PROJECT SUBMITTED TO
SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE.



FOR THE DEGREE OF
MASTER OF SCIENCE
IN
ORGANIC CHEMISTRY
BY

MR.GURULE CHAITANYA TUKARAM

UNDER THE GUIDANCE OF

ASST.PROF. DIPALI.H.DABHANE.

DEPARTMENT OF CHEMISTRY,

G.M.D.ARTS, B.W.COMMERCE AND SCIENEC COLLEGE,
SINNAR,
TAL-SINNAR, DIST-NASHIK-422103



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

“EXPLORATION OF PHOTOCATALYTIC PERFORMANCE OF CaO (CALCIUM OXIDE) FOR DEGRADATION METHYLENE BLUE DYE AND IT'S COMPARATIVE STUDY” submitted by **Mr. Gurule Chaitanya Tukaram** and it was carried out by the candidate under the supervision of **Mrs. Dipali.H.Dabhane**. She has successfully completed the project work in Organic Chemistry (CHO-681) during the Sem-IV of academic year 2024-2025.

Date: 22/04/2025

Place: Sinnar


Mrs. Dipali.H.Dabhane.
(Project Guide)


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


Prof. Dr. N.U. Patil.
(Principal)
PRINCIPAL

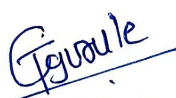

Internal Examiner


External Examiner


External Examiner

DECLARATION

We certify that we read this “EXPLORATION OF PHOTOCATALYTIC PERFORMANCE OF CaO (CALCIUM OXIDE) FOR DEGRADATION METHYLENE BLUE DYE AND IT’S COMPARATIVE STUDY for the award of the degree of Master of Science in Organic Chemistry at Department of Chemistry, G.M.D. Arts, B. W. Commerce and Science College, Sinnar, Nashik. Was carried out by the candidate under the supervision of **Mrs.Dipali.H.Dabhane**. (Assistant professor, Department of Chemistry, G.M.D. Arts, B. W. Commerce and Science College, Sinnar, Nashik) during Academic year 2024-2025.


Mr. Gurule Chaitanya Tukaram
M.Sc. (Organic Chemistry)
Department Of Chemistry,
G.M.D. Arts, B. W. Commerce and Science College, Sinnar.

**GREEN SYNTHESIS AND CHARACTERIZATION OF MAGNESIUM
DOPED NICKEL OXIDE NANOPARTICLE USING LANTANA CAMARA
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

MR. SAMADHAN VILAS JADHAV

UNDER THE GUIDANCE OF

MR. B. D. MASKE SIR

DEPARTMENT OF CHEMISTRY

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

MAR/APR 2024-2025



Maratha Vidya Prasarak Samaj's

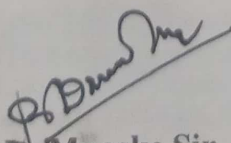
G.M.D. ARTS, B.W. COMMERCE AND SCIENCE COLLEGE,
SINNAR, DIST- NASHIK

DEPARTMENT OF CHEMISTRY

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

Topic name: Green Synthesis and Characterization of Magnesium doped Nickel oxide NPs using Lantana Camara leaf extract.

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. B. D. Maske Sir

(Project Guide)



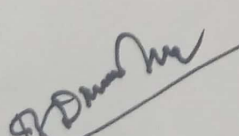
Maratha Vidya Prasarak Samaj's
G.M.D. ARTS, B.W. COMMERCE AND SCIENCE COLLEGE,
SINNAR, DIST- NASHIK
DEPARTMENT OF CHEMISTRY

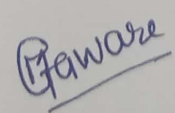
CERTIFICATE


This is to certify that PG dissertation entitled Synthesis **Green Synthesis and Characterization of Magnesium doped Nickel Oxide Nanoparticle Using Lantana Camara Leaf Extract** submitted by **Mr. Samadhan Vilas Jadhav** and it was carried out by the candidate under the supervision of **Mr. B. D. Maske Sir**. He has successfully completed the project work in Organic Chemistry (**CHO-681**) during the Sem-**IV** of academic year 2024-2025.

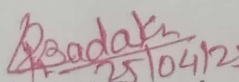
Date:

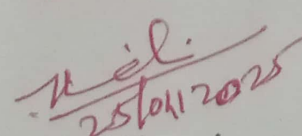
Place: Sinnar

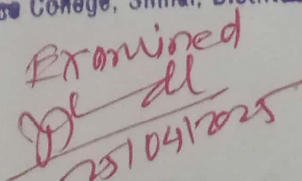

Mr. B. D. Maske Sir
(Project Guide)


Prof. (Dr.) N. U. Patil
HEAD
DEPARTMENT OF CHEMISTRY
(1981)
G.M.D. Arts, B.W. Commerce
and Science College, Sinnar


Dr. N. U. Patil
(Principal)
G.M.D. Arts, B.W. Commerce and
Science College, Sinnar, Dist. Nashik


Internal Examiner

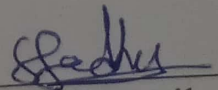

External Examiner


External Examiner

DECLARATION

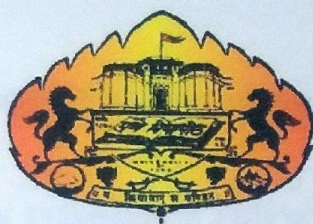
I hereby declare that the presented Research Project on **Green Synthesis and Characterization of Magnesium doped Nickel oxide NPs using Lantana Camara leaf extract** is uniquely prepared by me at G.M.D. Arts, B.W. Commerce And Science College Sinnar under the guidance of Mr. B. D Maske Sir.

Place: Sinnar
Date:

Sign- 
Name-Samadhan vilas jadhav

“Estimation Of Dapagliflozin By UV Spectroscopy And HPLC.”

**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. Sonali Shalik Jadhav

UNDER THE GUIDANCE OF

Mr. Jagdish Ghotekar

DEPARTMENT OF CHEMISTRY

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

422103

Mar/April- 2024-25



Maratha Vidya Prasarak Samaj's

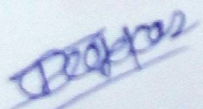
G.M.D. ARTS, B.W. COMMERCE AND SCIENCE COLLEGE,
SINNAR, DIST- NASHIK

DEPARTMENT OF CHEMISTRY

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

Topic name : "Estimation Of Dapagliflozin By UV Spectroscopy And HPLC."

Was satisfactorily carried out by Miss. Sonali Shalik Jadhav of M.Sc.II Organic Chemistry. she has completed this project under my supervision and guidance during Academic Year 2024 -2025. This project work submitted by her original and the scientific information obtained from other sources have been acknowledged.


Mr. Jagdish Ghotekar
(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 "**Estimation Of Dapagliflozin By UV Spectroscopy And HPLC.**", submitted **Miss. Sonali Shalik Jadhav** and it was carried out by the candidate under the supervision of **Mr. Jagdish Ghotekar**. She has successfully completed the project work in Organic Chemistry (**CHO-681**) during the Sem-4 of academic year 2024-2025.

Date: 22/04/2025

Place: Sinnar

Mr. Jagdish Ghotekar
(Project Guide)

Prof. R. Gaware

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

Prof. Dr. N U Patil
(Principal)

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

Place: Sinnar
Date:

25/04/25
Internal Examiner
25/04/25
External Examiner
25/04/2025
External Examiner

DECLARATION

I hereby declare that the presented Research Project on **"Estimation of Dapagliflozin by UV Spectroscopy and HPLC."** is uniquely prepared by me at ARNI Analytical Training Centre Nashik under the guidance of Mr. Jagdish Ghotekar.

Place: Sinnar

Date: 22/04/2025

Sign- Jadhav

Name- Sonali Shalik Jadhav

**“SIMULTANIOUS ESTIMATION
OF
METFORMIN FROM METFORMIN TABLETS”**

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.Khalkar Mangal Ramdas

UNDER THE GUIDANCE OF

Miss. Kalyani N. More Mam

DEPARTMENT OF CHEMISTRY

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

MARATHA VIDYA PRASARAK SAMAJ'S
G.M.D ARTS, B. W. COMMERCE AND SCIENCE COLLEGE,
SINNER-422103



DEPARTMENT OF CHEMISTRY

This is to certify that **MANGAL RAMDAS KHALKAR**, have successfully completed the Project entitled "**SIMULTANIOUS ESTIMATION OF METFORMIN FROM METFORMIN TABLETS**" under my supervision in the partial fulfillment of a master of science in the project of Organic Chemistry of Savitribai Phule Pune University, Pune

Date:-

Place:-Sinner


Miss. Kalyani N. More.

(Project Guide)


Prof. Dr. M. R. Gaware

HEAD

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

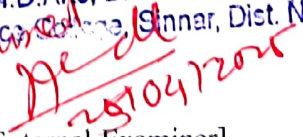

Dr. N. U. Patil

Principal
PRINCIPAL

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


[Internal Examiner]


[External Examiner]


[External Examiner]

DECLARATION BY THE CANDIDATE

I hereby declared that this project entitled “**SIMULTANIOUS ESTIMATION OF METFORMIN FROM METFORMIN TABLETS**” is bonfied and genuine project work carried out by us under supervision of **Miss. Kalyani N. More**

Date:- 22/4/25

Place:-Sinner



MANGAL RAMDAS KHALKAR
Name and Signature of the student



**M.V.P Samaj's
G.M.D.Arts, B.W.Commerce And Science College,
Sinnar (Dist.Nashik)**

DEPARTMENT OF CHEMISTRY

CERTIFICATE BY THE FACULTY COORDINATOR

This is to certify that entitled **"SIMULTANIOUS ESTIMATION OF METFORMIN FROM METFORMIN TABLETS"** Is a bonfide and genuine project work done by **MANGAL RAMDAS KHALKAR** fulfilment of the requirement for MSc –II [ORGANIC CHEMISTRY]

Date
Place-Sinnar


**MISS. KALYANI N. MORE
M.V.P.SAMAJ'S**

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

**"ANALYTICAL METHOD VALIDATION OF ASSAY OF TELMISARTAN IN
TELMISARTAN TABLETS BY
UV-SPECTROPHOTOMETER"**

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. Khandode Aarti Sunil

UNDER THE GUIDANCE OF

Miss. A. M. Rayate

DEPARTMENT OF CHEMISTRY

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

MAR/APR 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: "Analytical Method Validation of Assay of Telmisartan in Telmisartan
Tablets By UV-Spectrophotometer"**

Was satisfactorily carried out by **Miss. Khandode Aarti Sunil**
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.

Aarti

Miss. A. M. Rayate

(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 “**Analytical Method Validation of Telmisartan in Telmisartan Tablets by UV Spectrophotometer**”. submitted by **Miss. Khandode Aarti Sunil** and it was carried out by the candidate under the supervision of **Miss. A. M. Rayate** He has successfully completed the project work in Organic Chemistry (CHO681) during the Sem-IV of academic year 2024-2025.

Date: 22/04/25

Place: Sinnar

Aarti
Miss. A. M. Rayate
(Project Guide)

Pradip
25/04/25
Internal Examiner

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

External Examiner
25/04/25

Patil
Dr.N.U.Patil
(Principal)
PRINCIPAL
G.M.D.Arts, B.W.Commerce and
Science College, Sinnar, Dist. Nashik
25/05/2025
External Examiner



DECLARATION

I hereby declare that the presented Research Project on **“Analytical Method Validation of Assay of Telmisartan in Telmisartan Tablets by UV Spectrophotometer”**. at (Arni Analytical Training center Nashik) under the guidance of Miss. A. M. Rayate.

Place: Sinnar

Date: 22/04/25

Sign- Akhandode

Name - Khandode Aarti Sunil

**"ANALYTICAL METHOD VALIDATION OF ASSAY OF FEBUXOSTAT
IN FEBUXOSTAT TABLETS BY UVSPECTROPHOTOMETER"**

**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. KHULE KRUSHNA VIJAY**

**UNDER THE GUIDANCE OF
MR. JAGDISH GHOTEKAR**

DEPARTMENT OF CHEMISTRY

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

2024-2025

**“ANALYTICAL METHOD VALIDATION OF ASSAY OF
FEBUXOSTAT IN FEBUXOSTAT TABLETS BY UV-
SPECTROPHOTOMETER”**

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.Khule Krushna Vijay

UNDER THE GUIDANCE OF

MR. Jagdish Ghotekar

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: "Analytical Method Validation of Assay of Febuxostat in
Febuxostat Tablets by UV-Spectrophotometer"**

Was satisfactorily carried out by **Mr. Khule Krushna Vijay 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
(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 “**Analytical Method Validation of Assay of Febuxostat in Febuxostat Tablets by UV-Spectrophotometer**”. submitted by **Mr. Khule Krushna Vijay** and it was carried out by the candidate under the supervision of **Mr. Jagdish Ghotekar**. He has successfully completed the project work in Organic Chemistry (CHO-681) during the Sem-IV of academic year 2024-2025.


Date: 25/04/2025

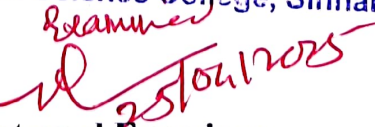
Place: Sinnar

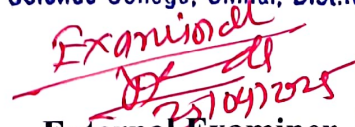

Mr. Jagdish Ghotekar
(Project Guide)


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


Dr. N.U. Patil
(Principal)
G.M.D Arts, B.W. Commerce and
Science College, Sinnar, Dist. Nashik


Internal Examiner


External Examiner

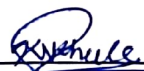

External Examiner

DECLARATION

I hereby declare that the presented Research Project on “**Analytical Method Validation of Assay of Febuxostat in Febuxostat Tablets by UV-Spectrophotometer**”. at Arni Analytical Training center Nashik under the guidance of Mr. Jagdish Ghotekar.

Place: Sinnar

Date: 25/04/2025

Sign- 

Name - Khule Krushna Vijay

**CuO NANOPARTICLES AS AN EFFICIENT CATALYST
FOR THE SYNTHESIS OF FLAVANONES**

**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. LOHAR KRUSHNA BHUSAHEB

**UNDER THE GUIDANCE OF
ASST. PROF. MISS. KALYANI NIWAS MORE
DEPARTMENT OF CHEMISTRY**

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

MAR/APR 2024-2025



Maratha Vidya Prasarak Samaj's

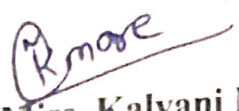
G.M.D. ARTS, B.W. COMMERCE AND SCIENCE COLLEGE,
SINNAR, DIST- NASHIK

DEPARTMENT OF CHEMISTRY

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

Topic name: CuO Nanoparticles As An Efficient Catalyst For The Synthesis Of Flavanones

Was satisfactorily carried out by **Mr. Krushna Bhausaheb Lohar** 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. Kalyani Niwas More
(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 CuO Nanoparticles As An Efficient Catalyst For The Synthesis Of Flavanones. submitted by **Mr. Krushna Bhausahb Lohar** and it was carried out by the candidate under the supervision of **Asst. Prof. Miss. Kalyani Niwas More**. He has successfully completed the project work in Organic Chemistry (CHO-681 RP) during the Sem-IV of academic year 2024-2025.

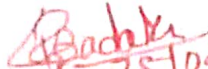
Date:


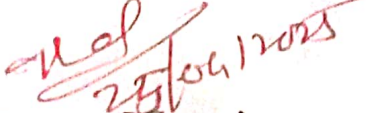
Place: Sinnar

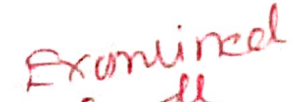

Miss. Kalyani N. More
(Project Guide)


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


Dr. 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 "**CuO Nanoparticles As An Efficient Catalyst For The Synthesis Of Flavanones.**" is uniquely prepared by me at G.M.D. Arts, B.W. Commerce And Science College Sinnar under the guidance of Miss. Kalyani Niwas More.

Place: Sinnar.

Date : 25 April 2025

Sign - 
Name-Krushna Bhausaheb Lohar

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. N. U. Patil** 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. Miss. Kalyani Niwas More**(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, for their feedback suggestion and stimulating discussions that enriched my understanding of the subject matter.

Sign-



Name- Lohar Krushna Bhausaheb

**“Synthesis Of New Chemical Entities From Paracetamol And NSAIDs
With Improved Pharmacodynamic Profile”**

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. AMIT BHAUSAHEB MURKUTE

UNDER THE GUIDANCE OF

MISS. G.B.HANDGE.

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



Maratha VidyaPrasarakSamaj's

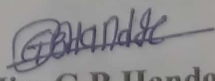
G.M.D. ARTS, B.W. COMMERCE AND SCIENCE
COLLEGE, SINNAR, DIST- NASHIK

DEPARTMENT OF CHEMISTRY

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

Topic name: "Synthesis of new chemical entities from paracetamol and NSAIDs with improved pharmacodynamic profile"

Was satisfactorily carried out by Mr. Amit Bhausaheb Murkute 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.


Miss. G.B. Handge.

(Project Guide)



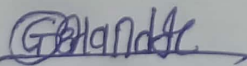
Maratha VidyaPrasarakSamaj's
G.M.D. ARTS, B.W. COMMERCE AND SCIENCE COLLEGE,
SINNAR, DIST- NASHIK
DEPARTMENT OF CHEMISTRY

CERTIFICATE

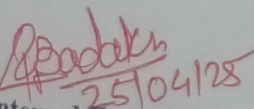
This is to certify that PG dissertation entitled "Synthesis Of New Chemical Entities From Paracetamol And NSAIDs With Improved Pharmacodynamic Profile". submitted by Mr. Amit BhausahabMurkute and it was carried out by the candidate under the supervision of Miss.G.B.Handge. He has successfully completed the project work in Organic Chemistry (CHO-656 RP) during the Sem-IV of academic year 2024-2025.

Date: 25/04/2025

Place: Sinnar

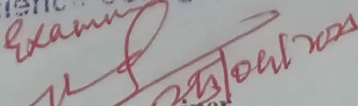

Miss.G.B.Handge

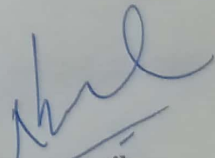
(Project Guide)

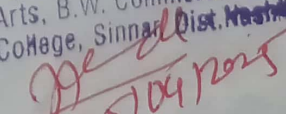

25/04/25
Internal Examination


Prof. Dr. M.R. Gaware.

HEAD
DEPARTMENT OF CHEMISTRY
(HOD of Chemistry)
G.M.D. Arts, B.W. Commerce
and Science College, Sinnar


25/04/25
External Examiner


Dr. N.U. Patil.

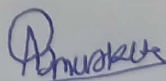
Principal,
G.M.D Arts, B.W. Commerce and
Science College, Sinnar Dist. Nashik

25/04/2025
External Examine

DECLARATION

I hereby declare that the presented Research Project on **“Synthesis Of New Chemical Entities From Paracetamol And NSAIDs With Improved Pharmacodynamic Profile”** is uniquely prepared by me at G.M.D. Arts, B.W. Commerce And Science College Sinnar under the guidance of Miss. G. B. Handge.

Place: Sinnar.

Date: 25/04/2025.

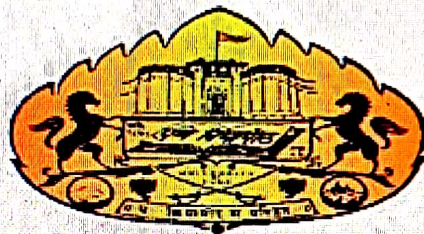


Name. Amit Bhausaheb Murkute

**“SIMULTANIOUS ESTIMATION OF
TELMISARTAN
FROM TELMISARTAN TABLETS”**

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.Nagre Usha Balu

UNDER THE GUIDANCE OF

MRS. Deepali H. Dabhane

DEPARTMENT OF CHEMISTRY

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

MAR/APR 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: "SIMULTANIOUS ESTIMATION OF TELMISARTAN
FROM TELMISARTAN TABLETS"**

Was satisfactorily carried out by Miss. Nagare Usha Balu 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.

Deepali H. Dabhane
22/04/2025

Mrs. Deepali H. Dabhane

(Project Guide)



Maratha Vidya Prasarak Samaj's

G.M.D. ARTS, B.W. COMMERCE AND SCIENCE COLLEGE,
SINNAR, DIST- NASHIK

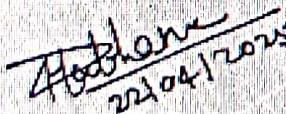
DEPARTMENT OF CHEMISTRY

CERTIFICATE

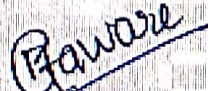
This is to certify that PG dissertation entitled synthesis submitted by Miss. Nagare Usha Balu and it was carried out by the candidate under the supervision of Mrs. Deepali H. Dabhane. He has successfully completed the project work in Organic Chemistry (CHO-656 RP) during the Sem-IV of academic year 2024-2025.


Date: 22/04/2025

Place: Sinnar


Mrs. Deepali H. Dabhane
(Project Guide)


Internal Examiner


Prof. D.M.R. Gaware
DEPARTMENT OF CHEMISTRY
G.M.D. Arts, B.W. Commerce
and Science College, Sinnar
External Examiner


Dr. N.U. Patil
PRINCIPAL
G.M.D. Arts, B.W. Commerce and
Science College, Sinnar, Dist. Nashik
External Examiner

DECLARATION

I hereby declare that the presented Research Project on "SIMULTANIOUS ESTIMATION OF TELMISARTAN FROM TELMISARTAN TABLETS". at (Arni Analytical Training center Nashik) under the guidance of Mrs. Deepali H. Dabhane.

Place: Sinnar

Date: 22/04/2025

Sign- UBnagare.

Name - Nagare Usha Balu

SIMULTANEOUS ESTIMATION OF PARACETAMOL FROM PARACETAMOL TABLET

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

Miss.K.N.More

DEPARTMENT OF CHEMISTRY

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

MAR - APR 2024-25



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: SIMULTANEOUS ESTIMATION OF PARACETAMOL
FROM PARACETAMOL TABLET

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.


Miss.K.N.More

(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
Simultaneous Estimation of Paracetamol From Paracetamol Tablet
submitted by **Miss. Sangale Radhika Uttam** and it was carried out by the candidate
under the supervision of **Miss.K.N.More** He has successfully completed
the project work in Organic Chemistry (CHO-801) during the Sem-IV of academic
year 2024-2025.


Date:

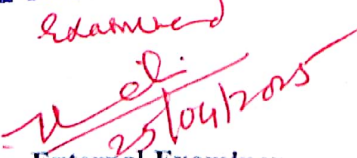
Place: Sinnar


Miss.K.N.More
(Project Guide)


Prof. P.M.B. Gaware
(HOD)
DEPARTMENT OF CHEMISTRY
G.M.D. Arts, B.W. Commerce
and Science College, Sinnar


Dr.N.U.Patil
(Principal)
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
Simultaneous Estimation of Paracetamol From Paracetamol Tablet
uniquely prepared by me at G.M.D. Arts, B.W. Commerce And Science
College Sinnar under the guidance of Miss.K.N.More

Place: Sinnar

Date: 22/04/25

Sign- 

Name-Sangale Radhika Uttam

**ANALYTICAL METHOD VALIDATION FOR ASSAY OF VALSARTAN IN VALSARTAN
TABLETS BY UV-SPECTROPHOTOMETER**

**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.Sangle Komal Subhash

UNDER THE GUIDANCE OF

Mr. D.G.Bahiram

DEPARTMENT OF CHEMISTRY

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

Year- 2024-25



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: **ANALYTICAL METHOD VALIDATION FOR ASSAY OF VALSARTAN IN VALSARTAN TABLETS BY UV-SPECTROPHOTOMETER**

Was satisfactorily carried out by **Miss. Sangle Komal Subhash** of M.Sc.II Organic Chemistry. She 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. D.G.Bahiram
(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 **ANALYTICAL METHOD VALIDATION FOR ASSAY OF VALSARTAN IN VALSARTAN TABLETS BY UV-SPECTROPHOTOMETER** submitted by **Miss. Sangle Komal Subhash** and it was carried out by the candidate under the supervision of **Mr. D.G.Bahiram**. She has successfully completed the project work in Organic Chemistry (**CHO-681**) during the Sem-IV of academic year 2024-2025.

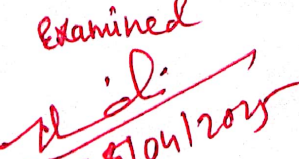
Date: **22/04/2025**
Place: Sinnar

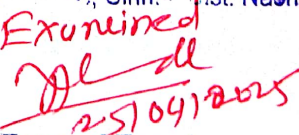

Mr. D.G.Bahiram
(Project Guide)


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


Prof. (Dr.) N.U. Patil
(Principal)
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 **ANALYTICAL METHOD VALIDATION FOR ASSAY OF VALSARTAN IN VALSARTAN TABLETS BY UV-SPECTROPHOTOMETER** is uniquely prepared by me at ARNI Analytical Center Nashik under the guidance of **Mr. D.G.Bahiram**.

Place: Sinnar

Date: 22/04/2025

Sign- Komal .

Name-Sangle Komal Subhash

**"Copper Catalyzed Biginelli Strategy for Efficient
Dihydropyrimidinone"**

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. CHETAN BALASAHEB SHAHANE

UNDER THE GUIDANCE OF

Mrs. SWATI CHATUR MADAM

DEPARTMENT OF CHEMISTRY



G.M.D. Arts, B.W. Commerce And Science College, Sinnar, Tal-Sinnar,
Dist-Nashik-422103


Department Of Chemistry Organic Chemistry

CERTIFICATE

This is to certify that 'Mr. Chetan Balasaheb Shahane' of M.Sc. II (Organic Chemistry) has satisfactorily completed the Research project work in Organic Chemistry(CHO-656 RP) during the semester IV of academic year 2024-2025.

Date:

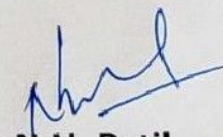
Place: Sinnar


Mrs. Swati Chatur

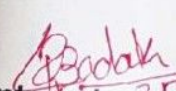
(Project Guide)


Prof. Dr. M. R. Gaware

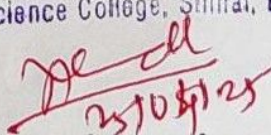
HEAD
DEPARTMENT OF CHEMISTRY
(HOD of Chemistry)
G.M.D. Arts, B.W. Commerce
and Science College, Sinnar


Dr. N.U. Patil

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


Internal Examination


External Examiner


External Examiner

DECLARATION

I hereby declare that the presented Research Project on

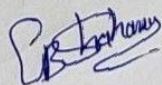
"Copper Catalyzed Biginelli Strategy for Efficient
Dihydropyrimidinone"

is uniquely prepared by me at G.M.D. Arts, B.W. Commerce And
Science College Sinnar under the guidance of Mrs. Swati Chatur.

Place: Sinnar

Date:

Sign-



Name- Chetan Balasaheb Shahane



FOR THE DEGREE OF
MASTER OF SCIENCE IN
ORGANIC CHEMISTRY
UNDER THE FACULTY OF
SCIENCE

BY

MS. THORAT RUPALI MARUTI

DEPARTMENT OF CHEMISTRY

UNDER THE GUIDANCE OF

MS. ANKITA RAYATE

DEPARTMENT OF CHEMISTRY

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

DEPARTMENT OF CHEMISTRY AND RESEARCH CENTER MARCH-APRIL
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: "SYNTHESIS AND SPECTROSCOPIC
INVESTIGATION OF PYRAZOLE-BASED COMPOUNDS"**

Was satisfactorily carried out by **Ms. Thorat Rupali Maruti** 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

Ankita

Ass. Ms. Ankita Rayate
(Project Guide)



Maratha Vidya Prasarak Samaja's

G.M.D.ARTS, B.W.COMMERCE AND SCIENCE COLLEGE, SINNAR, DIST-
NASHIK

DEPARTMENT OF CHEMISTRY

CERTIFICATE

This is to certify that **Ms. Thorat Rupali Maruti** 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- 656) during the Sem- Iv of academic year 2024- 2025.

Date: 22/04/2025

Place: Sinnar.

Ankita
Ms . Ankita Rayate
(project guide).

Gaware
Prof. Dr. H. M. J. Gaware.
(HOD)
DEPARTMENT OF CHEMISTRY
G.M.D. Arts, B.W. Commerce
and Science College, Sinnar

Patil
Dr. N.U. Patil
(Principal),
G.M.D Arts, B.W. Commerce and
Science College, Sinnar, Dist. Nashik

Pradip
25/04/25
Internal Examiner

Examined
U. S.
25/04/2025
External Examiner

Examined
U. S.
25/04/25
External Examiner

DECLARATION

I hereby declare that the presented Research Project on "**Synthesis and spectroscopic investigation of Pyrazole-based compounds**" is uniquely prepared by me at G.M.D Arts, B.W. Commerce And Science College Sinnar under the guidance of Ms. Ankita Rayate.

I am deeply grateful to the Head of the Department, Prof. M.D. Gawade, for his constructive assistance and guidance throughout the research endeavor. His encouragement and support were instrumental in navigating the challenges faced during the project.

I am also grateful to the Head of the Department, Prof. M.D. Gawade, for his constructive assistance and guidance throughout the research endeavor. His encouragement and support were instrumental in navigating the challenges faced during the project.

I am also grateful to the Head of the Department, Prof. M.D. Gawade, for his constructive assistance and guidance throughout the research endeavor. His encouragement and support were instrumental in navigating the challenges faced during the project.

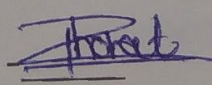
My special thanks go to my project guide, Ms. Ankita Rayate Ma'am, for her constant encouragement, support, feedback, and expert guidance. Her expertise and advice helped me overcome various challenges and gain a deeper understanding of the subject matter.

I would also like to thank the faculty members of the Department of Chemistry for providing me with a conducive learning environment and practical experience.

Additionally, I am grateful to my family members for their unwavering support and encouragement throughout the project.

Place: Sinnar

Date 22/04/2025

Sign 

Name- Rupali Maruti Thorat



Savitribai Phule Pune University

A Project Report

On

**SIMULTANEOUS ESTIMATION OF DAPAGLIFLOZIN
IN
DAPAGLIFLOZIN TABLETS**

Submitted by

Mrs. RESHMA ASHOK TRIMUKHE

(M.Sc. Organic Chemistry)

DEPARTMENT OF CHEMISTRY,

MARATHA VIDYA PRASARAK SAMAJ'S

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

SINNER-422103

Academic Year 2024-2025

MARATHA VIDYA PRASARAK SAMAJ'S
G.M.D ARTS, B. W. COMMERCE AND SCIENCE COLLEGE,
SINNER-422103



This is to certify that **Mrs. RESHMA ASHOK TRIMUKHE**, have successfully completed the Project entitled "**SIMULTANEOUS ESTIMATION OF DAPAGLIFLOZIN IN DAPAGLIFLOZIN TABLETS**" under my supervision in the partial fulfillment of a master of science in the project of Organic Chemistry of Savitribai Phule Pune University, Pune

Date:- 25/04/2025

Place:-Sinner

Mrs. D. H. Dabhane
(Project Guide)

Dr. M. R. Gaware

Head Of The Department
HEAD
DEPARTMENT OF CHEMISTRY
G.M.D. Arts, B.W. Commerce
and Science College, Sinner

DECLARATION

I hereby declare that the presented Research Project on **SIMULTANEOUS ESTIMATION OF DAPAGLIFLOZIN IN DAPAGLIFLOZIN TABLETS** is uniquely prepared by me at G.M.D. Arts, B.W. Commerce And Science College Sinnar under the guidance of Mrs. D. H. Dabhane

Place: Sinnar

Date: 25/04/2025

Sign- Reshma Ashok Trimukhe

Name-Reshma Ashok Trimukhe



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 **SIMULTANEOUS ESTIMATION OF DAPAGLIFLOZIN IN DAPAGLIFLOZIN TABLETS** submitted by Mrs. Reshma Ashok Trimukhe and it was carried out by the candidate under the supervision of Mrs. D. H. Dabhane . He has successfully completed the project work in Organic Chemistry (CHO-681) during the Sem-4th of academic year 2024-2025.


Date: 25/04/2025

Place: Sinnar



Mrs. D. H. Dabhane
(Project Guide)


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


Dr. N.U. Patil
(Principal)


Internal Examiner


External Examiner

PRINCIPAL
GMD Arts BW Commerce & Science
College, Sinnar, Dist. Nashik.

External Examiner

ACKNOWLEDGEMENT

We would to the privilege to thank the selfless people from the core of our heart who with their constant support, affection, inspiration and encouragement made us feel comfortable to successfully compete this venture.

Our deep sense of grattude and harmful thank to Mrs. D. H. Dabhane for his expert guidance, constant encouragement, stimulating discussion.

I am thankful to Principal Dr. N. U. Patil , HOD Dr. M. R. Gaware & Guide Mrs. D. H. Dabhane, Faculty coordinator for support and providing all the necessary facilities during the course of my project work and guided me in light path of the life.

It is our privilege to express our gratitude and sincere thanks to our family for their unconditional love prayer and moral support.

Our acknowledgement is many more what we have expressed here.

Place: Sinnar

Date: 25/04/2025

Sign- Reshma Ashok Trimukhe

Name-Reshma Ashok Trimukhe

**ANALYTICAL METHOD VALIDATION FOR ASSAY OF
CILNADIPINE
IN
CILNADIPINE TABLETS
BY
UV-SPECTROPHOTOMETER**

A Project Report Of

Submitted by

Savitribai Phule Pune University



For The Degree Of

MASTER OF SCIENCE

IN

ORGANIC CHEMISTRY

MISS.SIDDHI TANAJI WALKE

DEPARTMENT OF CHEMISTRY,

**MARATHA VIDYA PRASARAK SAMAJ'S
G.M.D ARTS, B. W. COMMERCE AND SCIENCE COLLEGE,**

SINNER-422103

Academic Year 2024-2025

MARATHA VIDYA PRASARAK SAMAJ'S
G.M.D ARTS, B. W. COMMERCE AND SCIENCE COLLEGE,
SINNER-422103

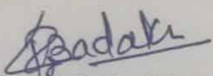


DEPARTMENT OF CHEMISTRY

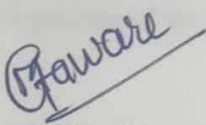
This is to certify that **SIDDHI TANAJI WALKE**, have successfully completed the Project entitled
“ANALYTICAL METHOD VALIDATION FOR ASSAY OF CILNADIPINE IN CILNADIPINE
TABLETS BY UV-SPECTROPHOTOMETER” under my supervision in the partial fulfillment of a master
of science in the project of Organic Chemistry of Savitribai Phule Pune University, Pune

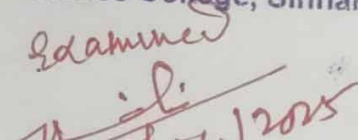
Date:- 25/04/2025

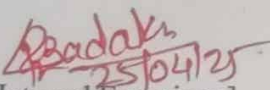
Place:-Sinner


Mrs. P.B Gadakh.

(Project Guide)

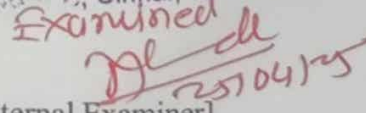

Prof. Dr. P.B. Gaware
HEAD
DEPARTMENT OF CHEMISTRY
G.M.D. Arts, B.W. Commerce
and Science College, Sinner


[External Examiner].


[Internal Examiner].


Dr. N.U. Patil

Principal
PRINCIPAL
G.M.D. Arts, B.W. Commerce and
Science College, Sinner, Dist. Nashik


[External Examiner]

DECLARATION BY THE CANDIDATE

I hereby declared that this project entitled "ANALYTICAL METHOD VALIDATION FOR ASSAY OF CILNADIPINE IN CILNADIPINE TABLETS BY UV-SPECTROPHOTOMETER" is bonfied and genuine project work carried out by us under supervision of MRS. P.B. GADAKH

Date:- 25/04/2025

Place:-Sinner

Siddhi

SIDDHI TANAJI WALKE

Name and Signature of the studen

**M.V.P.SAMAJ'S,
G.M.D.Arts,B.W.Commercer And Science College,Sinnar**

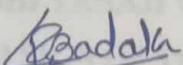


DEPARTMENT OF CHEMISTRY

CERTIFICATE BY THE FACULTY COORDINATOR

This is to certify that entitled "ANALYTICAL METHOD VALIDATION FOR ASSAY OF
AZELNIDIPINE IN AZELNIDIPINE TABLETS BY UV-SPECTROPHOTOMETER" Is a bonfide and
genuine project work done by **SIDDHI TANAJI WALKE** fulfilment of the requirement for MSc –II
[ORGANIC CHEMISTRY]

Date - 25/04/2025
Place-Sinner


MRS. P.B.GADAKH

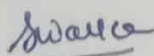
**MARATHA VIDYA PRASARAK SAMAJ'S
G.M.D ARTS, B. W. COMMERCE AND SCIENCE COLLEGE,
SINNER-422103**

ACKNOWLEDGEMENT

- We would to the privilege to thank the selfless people from the core of our heart who with their constant support, affection, inspiration and encouragement made us feel comfortable to successfully compete this venture.
- Our deep sense of gratitude and harmful thank to **MRS. P.B. Gadakh** for his expert guidance, constant encouragement, stimulating discussion.
- I am thankful to **Principal Dr. Mr.N.U.PATIL , HOD Dr. M. R. Gaware & Guide MRS. P.B Gadakh**, Faculty coordinator for support and providing all the necessary facilities during the course of my project work and guided me in light path of the life.
- It is our privilege to express our gratitude and sincere thanks to our family for their unconditional love prayer and moral support.
- Our acknowledgement is many more what we have expressed here.

Date:- 25/04/2025

Place:- Sinnar



SIDDHI TANAJI WALKE

NAME AND SIGN OF THE STUDENT

**"Synthesis And Characterization Of CuO Nanoparticles
Sol-Gel Versus Green Approach"**
**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. Vijaykumar Shivnaresh Yadav

Department Of Chemistry

UNDER THE GUIDANCE OF

Asst. Prof. Mr. Balasaheb Maske

DEPARTMENT OF CHEMISTRY

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

422103

WORKPLACE

DEPARTMENT OF CHEMISTRY AND RESEARCH CENTER

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: Synthesis and Characterization of CuO Nanoparticles: Sol-Gel Versus Green Approach

Has satisfactorily carried out by **Mr. Vijaykumar 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.


Asst. Prof. Mr. Balasaheb Maske

(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 and Characterization of CuO Nanoparticles: Sol-Gel Versus Green Approach** submitted by **Mr. Vijaykumar Shivnaresh Yadav** studying in MScII (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-656**) during the Sem-IV of academic year 2024-25.

Date:

Place: Sinnar.

Asst. Prof. Mr. Balasaheb Maske
Asst. Prof. Mr. Balasaheb maske
(Project Guide)

Prof. Dr. N. U. Patil
Prof. Dr. N. U. Patil
DEPARTMENT OF CHEMISTRY
G.M.D. Arts, B.W. Commerce
and Science College, Sinnar

Dr. N. U. Patil
Dr. N. U. Patil
PRINCIPAL
G.M.D. Arts, B.W. Commerce and
Science College, Sinnar, Dist. Nashik


Badam
Badam
25/04/25
Internal Examiner

Examined
Examined
25/04/25
External Examiner

Examined
Examined
25/04/25
External Examiner

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.N.U.Patil 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.Balasaheb Maske (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: - 

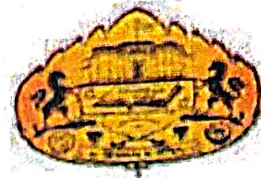
Name: - Vijaykumar Shivnaresh Yadav

DECLARATION

We certify that we read this thesis Design, Synthesis of Copper Oxide for Copper Oxide (CuO) Nanoparticle for the award of the degree of Master of Science in Organic Chemistry at Department of Chemistry, G.M.D. Arts, B. W. Commerce and Science College, Sinnar, Nashik. was carried out by the candidate under the supervision of. **Asst.Prof.Mr.Balasaheb Maske** (Assistant professor, Department of Chemistry, G.M.D. Arts, B. W. Commerce and Science College, Sinnar, Nashik) during Academic year 2024-2025.

Name of student: - Vijaykumar Shivnaresh Yadav

M.Sc (Organic Chemistry)



Savitribai Phule Pune University

A Project Report

On

WATER EXTRACT OF PIPER NIGRUM SEED

Submitted by

MS. RESHMA ASHOK TRIMUKHE

(M.Sc. Organic Chemistry)

DEPARTMENT OF CHEMISTRY,

MARATHA VIDYA PRASARAK SAMAJ'S

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

SINNER-422103

Academic Year-2024-2025

MARATHA VIDYA PRASARAK SAMAJ'S
G.M.D ARTS, B. W. COMMERCE AND SCIENCE COLLEGE,
SINNER-422103



This is to certify that **MS. RESHMA ASHOK TRIMUKHE**, have successfully completed the Project entitled "**WATER EXTRACT OF PIPER NIGRUM SEED**" under my supervision in the partial fulfillment of a master of science in the project of Organic Chemistry of Savitribai Phule Pune University, Pune

Date:- 25/04/2025

Place:-Sinner

Mrs. D. H. Dabhane

(Project Guide)

Dr. M. R. Gaware

Head Of The Department

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

DECLARATION

I hereby declare that the presented Research Project on **WATER EXTRACT OF PIPER NIGRUM SEED** is uniquely prepared by me at G.M.D. Arts, B.W. Commerce And Science College Sinnar under the guidance of Mrs. D. H. Dabhane

Place: Sinnar

Date: 25/04/2025

Sign- Reshma Ashok Trimukhe

Name-Reshma Ashok Trimukhe



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

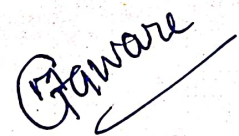
CERTIFICATE

This is to certify that PG dissertation entitled Synthesis **WATER EXTRACT OF PIPER NIGRUM SEED** submitted by **Ms. Reshma Ashok Trimukhe** and it was carried out by the candidate under the supervision of **Mrs. D. H. Dabhane Sir**. He has successfully completed the project work in Organic Chemistry (**CHO-607**) during the Sem-III of academic year 2024-2025.

Date: 25/04/2025

Place: Sinnar


Mrs. D. H. Dabhane
(Project Guide)


Prof. (Dr.) M. R. Gaware
(HoD)


Dr. R. V. PAWAR
(Principal)

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

PRINCIPAL
GMD Arts BW Commerce & Science
College, Sinnar, Dist. Nashik.


Internal Examiner


External Examiner


External Examiner

ACKNOWLEDGEMENT

We would to the privilege to thank the selfless people from the core of our heart who with their constant support, affection, inspiration and encouragement made us feel comfortable to successfully compete this venture.

Our deep sense of grattude and harmful thank to **Mrs. D. H. Dabhane** for his expert guidance, constant encouragement, stimulating discussion.

I am thankful to **Principal Mr. R. V. Pawar , HOD Dr. M. R. Gaware & Guide Mr. D. H. Dabhane**, Faculty coordinator for support and providing all the necessary facilities during the course of my project work and guided me in light path of the life.

It is our privilege to express our gratitude and sincere thanks to our family for their unconditional love prayer and moral support.

Our acknowledgement is many more what we have expressed here.

Place: Sinnar

Date: 25/04/2025

Sign- Reshma Ashok Trimukhe

Name-Reshma Ashok Trimukhe