

"Synthesis and Characterization of Nanoparticles by using Cactus leaf extract and it's Antimicrobial activity"

## SUBMITTED TO

TULJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND SCIENCE, BARAMATI.PUNE 2023-2024

AS A PARTIAL FULFILMENT OF THE DEGREE MASTER OF SCINCE IN INORGNIC CHEMISTRY BY

## GAIKWAD VISHAL ASHOK Roll No-16071

UNDER THE GUIDANCE OF Miss. Prof.R.T.Gadadare DEPARTMENT OF CHEMISTRY



TULJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND SCIENCE, BARAMATI.PUNE 2023-2024

## Certificate

This is to certify that, MR. VISHAL ASHOK GAIKWAD has successfully completed the project. "synthesis and characterization of zinc oxide nanoparticles by using Cactus leaf extract and it's antimicrobial activity. Which is being submitted here with as a partial fulfillment of the award of degree, master of science in Inorganic chemistry, TULJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND SCIENCE, BARAMATI PUNE. is the result of project work completed under my supervision and to the best of my knowledge and belief the work embodied in this is report has not formed earlier for any degree of similar title of this or any other University or examining body.

DATE: 23/04/2004

Miss. Prof.R.T.Gadadare

Project guide

24/04/2014

J Blondwe

**HOD Chemistry** 



"Comparative Study of TiO<sub>2</sub> synthesized by Chemical as well as Green approach using Cactus leaf extract"

#### SUBMITTED TO

TULJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND SCIENCE, BARAMATI, PUNE

AS A PARTIAL FULFILMENT OF THE DEGREE
MASTER OF SCIENCE IN INORGANIC CHEMISTRY BY

THOMBARE KARAN SOMNATH
Roll No-16074

UNDER THE GUIDANCE OF
Miss. Prof. R. T. GADADARE
DEPARTMENT OF CHEMISTRY

## Certificate

This is to certify that Mr. Karan Somnath Thombare has successfully completed the project. "Comparative Study of TiO2 synthesized by Chemical as well as green approach using Cactus leaf extract". Which is being submitted here with as a partial fulfillment of the award of degree, master of science in Inorganic Chemistry, TULJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND SCIENCE, BARAMATI PUNE, is the result of project work completed under my supervision and to the best of my knowledge and belief the work embodied in this is report has not formed earlier for any degree of similar title of this or any other University or examining body.

DATE:

20 | 04 | 2024 Miss. Prof.R.T.Gadadare (Project Guide) (HOD Chemistry)

External Examiner

Examined



"Synthesis and characterization of metal oxide nanoparticles by using Cactus leaf extract and it's antimicrobial activity".

#### SUBMITTED TO

TULJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND SCIENCE, BARAMATI, PUNE

AS A PARTIAL FULFILMENT OF THE DEGREE

MASTER OF SCIENCE IN INORGANIC CHEMISTRY BY

JAMDAR PRATIKSHA DATTATRAY
Roll No- 16078

#### UNDER THE GUIDANCE OF

Miss. Prof. R. T. GADADARE

OF ARTS, COMMERCE AND SCIENCE, BARAMATI.PUNE
2023-24

## Certificate

This is to certify that Miss Jamdar Pratiksha Dattatray has successfully completed the project. characterization of metal oxide nanoparticles by using Sonneratia Alba Apetala leaf extract and its antimicrobial activity. Which is being submitted here with as a partial fulfilment of the award of degree, Master of Science in Inorganic chemistry, TULJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND SCIENCE, BARAMATI PUNE. is the result of project work completed under my supervision and to the best of my knowledge and belief the work embodied in this is report has not formed earlier for any degree of similar title of this or any other University or examining body.

DATE: 23/04/2024

at Godad are Miss. Prof. R.T. GADADARE

Project guide

**HOD Chemistry** 

T. C. College, Baramati

Examiner



"Synthesis and characterization of metal oxide nanoparticles by using Cactus leaf extract and it's antimicrobial activity"

## SUBMITTED TO

TULJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND SCIENCE, BARAMATI, PUNE

AS A PARTIAL FULFILMENT OF THE DEGREE

MASTER OF SCIENCE IN INORGANIC CHEMISTRY BY

AHIWALE SAYALI DEVDUTTA

Roll No-16081

UNDER THE GUIDANCE OF
Miss. Prof. R. T. GADADARE
DEPARTMENT OF CHEMISTRY. 2023-24

## Certificate

This is to certify that Miss Ahiwale Sayali Devdutta has successfully completed the project. "Synthesis and characterization of metal oxide nanoparticles by using Cactus leaf extract and it's antimicrobial activity. Which is being submitted here with as a partial fulfillment of the award of degree, master of science in Inorganic chemistry, TULJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND SCIENCE, BARAMATI PUNE. is the result of project work completed under my supervision and to the best of my knowledge and belief the work embodied in this is report has not formed earlier for any degree of similar title of this or any other University or xamineo examining body.

DATE: 20/04/2024

Stradador 2010412024 Miss. Prof. R.T.GADADARE

Project guide

Examiner



#### A Project Report on

## "GREEN SYNTHESIS OF NICKEL OXIDE NANOPARTICLES USING <u>HIBISCUS</u> FLOWER EXTRACT."

Submitted To.

## THE DEPARTMENT OF CHEMISTERY TULJARAM CHARTURCHAND COLLEGE, BARAMATI

(Autonomous)

DIST - PUNE.

As Partial Fulfilment of M.Sc. Degree 2023 - 2024

Submitted By,

Mr. POTE RAJDEEP YUVRAJ. Mr. KHATKE VIJAY MAHADEV.

Under the guidance of

Prof. G. D PIRALE



## ANEKANT EDUCATION SOCIETY'S

## TULJARAM CHARTURCHAND COLLEGE, BARAMATI

(Autonomous)

## DEPARTMENT OF CHEMISTRY

#### CERTIFICATE

This is to certify that the work incorporated in the project report entitled. "GREEN SYNTHESIS AND CHARACTERIZATION OF NICKEL OXIDE NANOPARTICLES USING HIBSCUS FLOWER EXTRACT." Submitted by Mr. Pote Rajdeep Yuvraj, Mr. Khatke Vijay Mahadev for the partial fulfilment of practical course PSCHI-245 for the degree of the Master of Science in "INORGANIC CHEMISTRY." The project was carried out in excellent / Satisfactorily manners under supervision of Prof. Pirale G.D in department of chemistry.

Prof. G.D. PIRALE

(Project Guide)

DR. R.S. BHONDWE

\$Pondue

(PG Co-Ordinator)

PROF. Di.

(Head of Chemistry Department)



A

Project Report On

## "SYNTHESIS AND CHARACTERIZATION OF 2-AMINOTHIAZOLE BASED METAL COMPLEXES"

Submitted to

## THE DEPARTMENT OF CHEMISTRY TULAJARAM CHATURCHAND COLLEGE, BARAMATI, DIST: PUNE

As a Partial Fulfilment of M. Sc. Degree 2023-2024

Submitted By, Miss- HAKE RUTUJA GANPAT Mr- MALAVE NIKHIL ASHOK

Under Guidance of

Prof. G.D. PIRALE



## ANEKANT EDUCATION SOCIETY'S TULAJARAM CHATURCHAND COLLEGE, BARAMATI,

THE DEPARTMENT OF CHEMISTRY

Page border

#### CERTIFICATE

This is to certify that the work incorporated in the report entitle "SYNTHESIS AND CHARACTERIZATION OF 2-AMINOTHIAZOLE BASED METAL COMPLEXES" submitted by Miss- Hake Rutuja Ganpat, Mr-Malve Nikhil Ashok for the partial fulfilment of practical course PSCHI 246 for the Degree of the Master of Science in "INORGANIC CHEMISTRY". The Project was carried out in excellent / satisfactorily manner sounder supervision of Prof. G.D. PIRALE in Department of Chemistry TULAJARAM CHATURCHAND COLLEGE, BARAMATI,

(PG Co-ordinator)

Prof. G. D. PIRALE

(Project Guide)

(Head of Department)



A

Project Report on

## "ANALYSIS OF MICROPLASTIC IN ENVIRONMENTAL SAMPLE BY SPECTROSCOPY METHOD"

project report submitted to

The Department of Chemistry

Tuljaram Chaturchand College of Arts, Science And Commerce,

Baramati (Autonomous)

As partial fulfilment of M.sc degree

(2023-24)

BY

Miss. Shitole Priti Umesh(16227)

Miss. Attar Pakija Latib(16231)

Miss. Kharat Prajkta Vijaykumar(16230)

Under the Guidence of Prof. Maharudra A. Dudhe



#### ANEKANT EDUCATION SOCIETY'S

Tuljaram Chaturchand College of Arts, Science And Commerce,

Baramati (Autonomous)

#### DEPARTMENT OF CHEMISTRY

#### CERTIFICATE

This is to certify that the work incorporated in the project report entitled "Analysis of microplastic in environmental sample by spectroscopy method. "submitted by Shitole Priti U., Attar Pakija L., Kharat Prajkta V. for the partial fulfilment of practical cource PSCHA246 or the degree of master of science in Analytical Chemistry the project was carried out in excellent/satisfactory manner under my supervision in Department of Chemistry,

Tuljaram Chaturchand College of Arts, Science And Commerce, Baramati (Autonomous).

Prof. M.A.Dudhe

(Project Guide)

External

(Examiner)

DE2014124.

Head Department of Chemistry

## "ANEKANT EDUCATION SOCIETY"

# TULJARAM CHATURCHAND COLLEGE OF ARTS, SCIENCE & COMMERCE, BARAMATI-413102

(Autonomous)



A PROJECT REPORT ON

"SYNTHESIS, CHARACTERIZATION & ANTIMICROBIAL STUDY OF CdS NANOPARTICLES"

SUBMITTED TO

DEPARTMENT OF CHEMISTRY

SAVITRIBAI PHULE PUNE UNIVERSITY

By

Mr. Mandhare Omkar Balasaheb.
Mr. Deokar Sanket Trimbak.

UNDER THE GUIDENCE OF

Miss. Sonali P. Nale 2023-2024

## "ANEKANT EDUCATION SOCIETY"

## TULJARAM CHATURCHAND COLLEGE OF ARTS, SCIENCE &COMMERCE, BARAMATI-413102

(Autonomous)



#### CERTIFICATE

This is to certify that Mr. Mandhare Omkar Balasaheb, Mr. Deokar Sanket Trimbak, regular students of class M.Sc.-II (Chemistry) has completed project on "Synthesis, Characterization & Antimicrobial Study Of CdS Nanoparticals" in the partial fulfilment of the program in M.Sc. II as per the syllabus laid by Savitribai Phule Pune University, during the academic year 2023-2024 conducted under my supervision.

20/04/2024. Miss. Sonali P. Nale

PROJECT GUIDE

EXTERNAL EXAMINER

PLACE :- BARAMATI

DATE : 24/04/2024

## "ANEKANT EDUCATION SOCIETY" TULJARAM CHATURCHAND COLLEGE OF ARTS, SCIENCE & COMMERCE, BARAMATI-413102

(Autonomous)



## A PROJECT REPORT ON

## Adsorption studies of methylene blue on coconut shell based low cost adsorbent.

## SUBMITTED TO DEPARTMENT OF CHEMISTRY SAVITRIBAI PHULE PUNE UNIVERSITY

By

Miss. Varsha Pandit Kanhere

Miss. Pratiksha Sanjay Burungale

Miss. Shrushti Balaso Atole

UNDER THE GUIDENCE OF

Miss. Sonali P. Nale

2023-2024

## "ANEKANT EDUCATION SOCIETY"

## TULJARAM CHATURCHAND COLLEGE OF ARTS, SCIENCE & COMMERCE, BARAMATI-413102

(Autonomous)



## CERTIFICATE

This is to certify that MISS. VARSHA PANDIT KANHERE, MISS. PRATIKSHA SANJAY BURUNGALE, MISS. SHRUSHTI BALASO ATOLE, regular students of class M.Sc.-II (Chemistry) has completed project on ADSORPTION STUDIES OF METHYLENE BLUE ON COCONUT SHELL BASED LOW COST ADSORPTION' in the partial fulfilment of the program in M.Sc. II as per the syllabus laid by Savitribai Phule Pune University, during the academic year 2023-2024 conducted under my supervision.

Miss. Sonali P. Nale

PROJECT GUIDE

EXTERNAL **EXAMINER** 

HEAD OF DEPARTMENT

PLACE: BARAMATI



## A Project Report on

## "GREEN SYNTHESIS AND CHARACTERIZATION OF NICKEL OXIDE NANOPARTICLES USING <u>ORANGE PEEL</u> EXTRACT."

Submitted To.

## THE DEPARTMENT OF CHEMISTERY

## TULJARAM CHARTURCHAND COLLEGE, BARAMATI

(Autonomous)

DIST-PUNE.

As Partial Fulfilment of M.Sc. Degree 2023 - 2024

Submitted By,

Mr. Wagh Omkar Suresh.

Mr . Sodmise Amol kamalakar

Mr . Bokil Prajwal Prashant

Mr . Sonwane Tushar Rajendra

Under the guidance of

Prof. G. D PIRALE



## ANEKANT EDUCATION SOCIETY'S

## TULJARAM CHARTURCHAND COLLEGE, BARAMATI

(Autonomous)

#### DEPARTMENT OF CHEMISTRY

#### CERTIFICATE

This is to certify that the work incorporated in the project report entitled. "GREEN SYNTHESIS OF NICKEL OXIDE NANOPARTICLES USING ORANGE PEEL EXTRACT." Submitted by Mr., Wagh Omkar Suresh, Mr., Sodmise Amol kamalakar, Mr., Bokil Prajwal Prashant, Mr., Sonwane Tushar Rajendra for the partial fulfilment of practical course PSCHA246 for the degree of the Master of Science in "INORGANIC CHEMISTRY." The project was carried out in excellent / Satisfactorily manners under supervision of Prof. Pirale G.D in department of chemistry.

Prof. G.D. PIRALE

(Project Guide)

DR. R.S. BHONDWE

(PG Co-ordinator)

Blondul

PROF.Dr.

(Head of Chemistry Department)



"GREEN SYNTHESIS OF CROMIUM OXIDE (Cr2O3) NANOPARTICLESBY USING CACTUS LEAF EXTRACT AND ITS ANTIMICROBIAL ACTIVITIES"

# SUBMITTED TO TULJARAM CHARTURCHAND COLLEGE, BARAMATI DIST - PUNE.

As Partial Fulfilment of M.Sc. Degree 2023 - 2024

SUBMITED BY

NALE NIKITA DATTATRAY

UNDER THE GUIDANCE OF

Prof. R. T GADADARE



## Certificate

This is to certified that they work incorporated in the project NALE NIKITA Cromium Oxide (Cr203) Nanoparticlesby Using Cactus Leaf Extract And Its award of degree, master of science in Analytical chemistry, at TULJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND SCIENCE, BARAMATI, PUNE

Result of project work completed under my supervision and to the best of my knowledge and belief the work embodied in this is reported has not formed earlier for any degree of similar title of this or any other University or examining body.

DATE: 22/04/2024

22104124 Prof. R. T. GADADARE

Project Guide

Head deapartment of chemistry

T. C. College Baramati.



# "GREEN SYNTHESIS OF SILVER NANOPARTICALES BY USING CACTUS LEAF EXTRACT AND ITS ANTIMICROBIAL ACTIVITIES"

#### SUBMITTED TO

TULJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND SCIENCE, BARAMATI, PUNE

AS A PARTIAL FULFILMENT OF THE DEGREE

MASTER OF SCIENCE IN ANALYTICAL CHEMISTRY

BY

GULUMKAR PRITAM RAMDAS
Roll No-16233

UNDER THE GUIDANCE OF
Miss. Prof. R. T. GADADARE
DEPARTMENT OF CHEMISTRY

#### Certificate

This is to certify that Mr. Gulumkar Pritam Ramdas has successfully completed the project. "Green synthesis of silver nanoparticales by using cactus leaf and its antimicrobial activities". Which is being submitted here with as a partial fulfillment of the award of degree, master of science in Analytical Chemistry. TULIARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE ANDSCIENCE, BARAMATI PUNE, is the result of project work completed under my supervision and to the best of my knowledge and belief the work embodied in this is report has not formed earlier for any degree of similar title of this or any other University or examining body.

DATE: 24/04/2024

Phadador 24/04/2024 Miss. Prof.R.T.Gadadare

(Project Guide)

Fuylzy (HOD Chemistry)

14/09/10/2 External

Examiner

"Synthesis, characterization of manganese oxide nanoparticles

by using groundnut shell extract and it's antimicrobial activity"

# SUBMITTED TO TULJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND SCIENCE, BARAMATI, PUNE



# AS A PARTIAL FULFILMENT OF THE DEGREE MASTER OF SCIENCE IN ANALYTICAL CHEMISTRY BY

Londhe kiran rajendra Roll No-16236

UNDER THE GUIDANCE OF
Miss. Prof.R.T.Gadadare
DEPARTMENT OF CHEMISTRY



## TULIJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND

#### SCIENCE, BARAMATI.PUNE

2022-23

#### Certificate

This is to certify that, Miss., Londhe Kiran Rajendra has successfully completed the project. "synthesis, Characterization of manganese oxide nanoparticles by using groundnut shell extract and it's antimicrobial activity. Which is being submitted here with as a partial fulfillment of the award of degree, Master of Science in analytical chemistry, TULJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND SCIENCE, BARAMATI PUNE. is the result of project work completed under my supervision and to the best of my knowledge and belief the work embodied in this is report has not formed earlier for any degree of similar title of this or any other University or examining body-

DATE: 22/04/2024

Project guide

External examine

"Synthesis and characterization of metal oxide nanoparticles by using groundnut extract and it'santimicrobial activity"

SUBMITTED TO

TULJARAM CHATURCHAND COLLEGE OF ARTS,

COMMERCE AND SCIENCE, BARAMATI, PUNE



AS A PARTIAL FULFILMENT OF THE DEGREE

MASTER OF SCIENCE IN ANALYTICAL CHEMISTRY
BY

Masal Nikita Balbhim Roll No-16232

UNDER THE GUIDANCE OF
Miss. Prof.R.T.Gadadare
DEPARTMENT OF CHEMISTRY



## TULIJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND SCIENCE, BARAMATI.PUNE

2022-23

#### Certificate

This is to certify that, Miss. Masal Nikita Balbhim, Londhe Kiran Rajendra has successfully completed the project. "synthesis and characterization of metal oxide nanoparticles by using groundnut leaf extract and it's antimicrobial activity. Which is being submitted here with as a partial fulfillment of the award of degree, Master of Science in analytical chemistry, TULJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND SCIENCE, BARAMATI PUNE. is the result of project work completed under my supervision and to the best of my knowledge and belief the work embodied in this is report has not formed earlier for any degree of similar title of this or any other University or examining body-

DATE: 22/04/2024

Miss. Prof. R.T. Gadadare

Project guide

Examiner

HOD HOD

External Hou 2024

Examiner

Pyridine based Ionic liquid an alternate green catalyst for organic synthesis.

#### SUBMITTED

To

TULJARAM CHATURCHAND COLLEGE OF ARTS, SCIENCE
AND COMMERCE, BARAMATI, PUNE



## AS A PARTIAL FULFILLMENT OF THE DEGREE MASTER OF SCIENCE IN ORGANIC CHEMISTRY

By

MR. PAWAR SWAPNIL SITARAM
MR.KOLEKAR SHANKAR VILAS
MR.SHIPKULE GANESH ANIL

#### UNDER THE GUIDANCE OF

Dr. N. C. Dige
M. Sc. Ph. D.
DEPARTMENT OF CHEMISTRY
TULJARAM CHATURCHAND COLLEGE OF ARTS, SCIENCE AND

COMMERCE, BARAMATI, PUNE 2023 - 24

## TULJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND SCIENCE, BARAMATI, PUNE



## CERTIFICATE

This is to certify that ,MR. PAWAR SWAPNIL SITARAM MR.KOLEKAR SHANKAR VILAS MR.SHIPKULE GANESH ANIL has successfully completed the project work on "Pyridine based Ionic liquid an alternate green catalyst for organic synthesis" which is being submitted herewith as a partial fulfillment for the award of degree, Master of Science in Organic Chemistry, Tuljaram Chaturchand College, Baramati is the result of project work completed under my supervision and to the best of my knowledge and belief the work embodied in this report has not formed earlier for any degree of similar title of this or any other University or examining body.

DATE- 22/04/2024

Examined

A Dino

Dr. N. C. Dige Project Guide, Dept. of Chemistry, TC College,

Baramati

**EXAMINER** 

PG coordinator Dept. of Chemistry

## PROJECT REPORT

ON

Synthesis of Morphiline Based Ionic Liquids and their applications for the synthesis of heterocyclic compounds

## SUBMITTED

To

TULJARAM CHATURCHAND COLLEGE OF ARTS, SCIENCE AND COMMERCE, BARAMATI, PUNE



## AS A PARTIAL FULFILLMENT OF THE DEGREE MASTER OF SCIENCE IN ORGANIC CHEMISTRY

#### By

MISS. NALAWADE RUTUJA BALU

MISS. PAWAR NIKITA SHIVA.II

MISS. LONDHE VARSHARANI AJINATH

UNDER THE GUIDANCE OF

Dr. N. C. Dige M. Sc. Ph. D.

DEPARTMENT OF CHEMISTRY

TULJARAM CHATURCHAND COLLEGE OF ARTS, SCIENCE AND

COMMERCE, BARAMATI, PUNE 2023 - 24

# TULJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND SCIENCE, BARAMATI, PUNE



## CERTIFICATE

This is to certify that, MISS. NALAWADE RUTUJA BALU MISS. PAWAR NIKITA SHIVAJI MISS. LONDHE VARSHARANI AJINATH has successfully completed the project work on "Synthesis of Morphiline Based Ionic Liquids and their applications for the synthesis of heterocyclic compounds." which is being submitted herewith as a partial fulfillment for the award of degree, Master of Science in Organic Chemistry, Tuljaram Chaturchand College, Baramati is the result of project work completed under my supervision and to the best of my knowledge and belief the work embodied in this report has not formed earlier for any degree of similar title of this or any other University or examining body

DATE- 22/04/2024

Elons.

Dr. N. C. Dige Project Guide, Dept. of Chemistry, TC College, Baramati Examined

EXAMINER

PG coordinator Dept. of Chemistry

Blund we



## A project report on

"Reaction of hydrzones derived from electron rich ketones with Vilsmeier-Haack reagent

## Submitted to

## **Department Of Chemistry**

## Performed by

Mr : Nalawade Omkar Dhananjay .

Mr : Gaikwad Rohit Nagnath .

Under the Guidance of

Dr. Landge V.P.

**Department of Chemistry** 

**Anekant Education Society's** 

Tuljaram Chaturchand College of

Arts, Commerce and Science

(Autonomous)

2023-2024

## Certificate

This is to certify that the work incorporated in the project report on" Reaction of hydrazone derived from electron rich ketone with Vilsmeier-Haack reagent. "Submited by Mr. Nalawade Omkar Dhananjay, Mr. Gaikwad Rohit Nagnath. Students to Arts, Commerce and Science college, Bramati ( Autonomous), affiliated to Savitribai Phule Pune Univercity in paratial requirement for the post graduate degree in Organic Chemistry.

Dr. Landge. V.P Project Guide

External Examiner

Frof. 214124.
Head of dept.

Synthesis, characterization and Application of surfactant based ionic

SUBMITTED

TULJARAM CHATURCHAND COLLEGE OF ARTS, SCIENCE AND COMMERCE, BARAMATI, PUNE



## AS A PARTIAL FULFILLMENT OF THE DEGREE MASTER OF SCIENCE IN ORGANIC CHEMISTRY

By

Miss. SHELAKE SHIVANI DIPAK

Miss. CHAVAN KETAKI VISHAL

Miss. BANKAR PRATIKSHA RAJENDRA

UNDER THE GUIDANCE OF

Dr. Nilam C. Dige

M. Sc. Ph. D.

DEPARTMENT OF CHEMISTRY TULJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND SCIENCE, BARAMATI, PUNE 2024 - 2025

SCIENCE, BARAMATI, PUNE



# GERTIFICATE

This is to certify that, Miss. SHIVANI DIPAK SHELAKE, CHAVAN KETAKI VISHAL BANKAR PRATIKSHA RAJENDRA has successfully completed the project work on "Synthesis, characterization and Application of Surfactant based ionic liquids" which is being submitted herewith as a partial fulfillment for the award of degree, Master of Science in Organic Chemistry, Tuljaram Chaturchand College, Baramati is the result of project work completed under my supervision and to the best of my knowledge and belief the work embodied in this report has not formed earlier for any degree of similar title of this or any other University or examining body.

DATE-20 / 4 / 2024

Polist!

Dr. N. C. Dige Project Guide, Dept. of Chemistry, TC College, Baramati Examined

Examiner

PG coordinator
Dept. of Chemistry

#### PROJECT REPORT ON

# Synthesis of task specific ionic liquids for the synthesis of heterocyclic compounds

SUBMITTED

TO

TULIARAM CHATURCHAND COLLEGE OF ARTS, SCIENCE AND COMMERCE, BARAMATI, PUNE



AS A PARTIAL FULFILLMENT OF THE DEGREE

MASTER OF SCIENCE IN ORGANIC CHEMISTRY

By

Miss. PAWAR KAJAL VIJAY

Miss. ZOND MAYURI BALASO

Miss, LONDHE GAYATRI DATTATRAY

UNDER THE GUIDANCE OF

Dr. Nilam C. Dige

M. Sc. Ph. D.

DEPARTMENT OF CHEMISTRY

TULIARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND SCIENCE, BARAMATI,

2023 - 24

TULIARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE ANDSCIENCE,

BARAMATI, PUNE



# CERTIFICATE

This is to certify that, Miss. PAWAR KAJAL VIJAY, Miss. ZOND MAYURI BALASO and Miss. LONDHE GAYATRI DATTATRAY has successfully completed the project work on "Synthesis of ttask specific ionic liquids for the synthesis of heterocyclic compounds" which is being submitted herewith as a partial fulfillment for the award of degree, Master of Science in Organic Chemistry, Tuljaram Chaturchand College, Baramati is the result of project work completed under my supervision and to the best of my knowledge and belief the work embodied in this report has not formed earlier for any degree of similar title of this or any other University or examining body.

DATE: 10/4/2024

Dr. N. C. Dige

Project Guide,

Dept. of Chemistry,

TC College,

Baramati

\$

PG coordinator

Dept. of Chemistry

Examina

f 2014/24

Head

Dept. of Chemistry,



# Anekant Education Scoiety's,

# Tuljaram Chaturchand College, Baramati 413102

Affiliated to Savatribai Phule Pune University, Pune.

Project Report on,

# Synthesis, Charecterisation and Densisty functional theory (DFT) study of 3-(2-aminothiazol-4-yl)-2H-chromen-2-one

PROJECT REPORT

SUBMITTED TO.

# DEPARTMENT OF CHEMISTRY,

As partial fulfilment of MSc degree,

2023-2024

By

Suravase Chetan Balasaheb

Roll No:- 15992

Under the guidance of

Dr. Bhondwe R.S.

MSc, PhD, SET



# ANEKANT EDUCATION SOCIETY'S TULJARAM CHATURCHAND COLLEGE, BARAMATI 413102

#### DEPARTMENT OF CHEMISTRY

#### CERTIFICATE

This is to certify that the work incorporated in the project report entitled "Synthesis, charecterisation and densisty functional theory (DFT) study of 3-(2-aminothiazol-4-yl)-2H-chromen-2-one" submitted by Suravase Chetan Balasaheb for the partial fulfilment of practical course PSCHO-246 for the degree of Master of Science in Organic Chemistry. The project was carried out in excellent/satisfactory manner under my supervision in Department Of Chemistry, Tuljaram Chaturchand College, Baramati.

Dr. Bhondwe R.S.

#Blond-M

Project Guide

Examined Asokals

External

Head of Department Chemistry

Bhondue



# Tuljaram Chaturchand College of Arts, Commerce and Science,

Baramati, Dist.-Pune

Year: 2023-24

A Project Report

On

# "Green Synthesis of Metal Complexes"

#### Submitted by

Chikane Rushikesh Kakaso Mr. Chayare

Mr. Chavare Nikhil Baban

Mr. Chavan Omakar Abhimanyu

Roll No: 15974

Roll No:15962

Roll No: 16000

Exam No:

Exam No:

Exam No:

Under the guidance of

Dr Bhondwe R.S



# CERTIFICATE

This is to certify the work incorporated in the project report entitled "Green Synthesis of Metal Complexes" submitted by Mr. Chikane Rushikesh Kakaso, Mr. Chavare Nikhil Baban & Mr. Chavan Omakar Abhimanyu for the award of the degree of Master of Science in Chemistry by Department of Chemistry, Tuljaram Chaturchand College of Arts, Commerce and Science, Baramati was carried out by the candidate under the supervision of Dr Bhondwe R.S Department of Chemistry, Tuljaram Chaturchand College of Arts, Commerce and Science, Baramati during April 2024.

PG Coordinator

Examiner

Department of Chemistry

Place: Baramati

Date:



# Anekant Education Society's,

# Tuljaram Chaturchand College, Baramati 413102

Affiliated to Savitribai Phule, Pune University, Pune.

# Project Report on,

"Synthesis, Characterization and Antimicrobial Activity of some Metal Complexes Derived from 2-amino- 4-phenylthiazole".

# PROJECT REPORT SUBMITTED TO,

# DEPARTMENT OF CHEMISTRY,

As partial fulfilment of M.Sc. degree, 2023-2024

By,

Doifode Punam Hanumant

Tate Pranali Prabhakar

Under the guidance of

Prof. Dr. Bhondwe R.S.

(MSc. PhD, SET)



# ANEKANT EDUCATION SOCIETY'S, TULJARAM CHATUARCHAND COLLEGE, BARAMATI 413102

#### DEPARTMENTOF CHEMISTRY

#### CERTIFICATE

This is to certify that the work incorporated in the project entitled "Synthesis, Characterization and Antimicrobial Activity of some Metal Complexes Derived from 2-amino-4-phenylthiazole". Submitted by Doifode Punam. Hanumant. & Tate Pranali Prabhakar. for the partial fulfilment of practical course PSCHO-246 for the degree of Master of Science in Organic Chemistry. The project was carried out in excellent/satisfactorily manner under my supervision in Department of Chemistry, Tuljaram Chaturchand College, Baramati.

Examined.

Project Guide

External

Head, Department of Chemistry



# A PROJECT TITLE ON

"Synthesis, Characterization and Computational study of Azo Dyes"

Submitted to,

# ANEKANT EDUCATION SOCITY'S TULJARAM CHATURCHAND COLLEGE, BARAMATI, DIS- PUNE.

# DEPARTMENT OF CHEMISTRY

YEAR: 2023 - 2024

Submitted by,

# PARKALE MOHINI DATTATRAYA

Exam No:

Seat No:

Under the guidance of

Dr. Bhondawe R. S.

M.sc, PhD, SET.

# CERTIFICATE

This is to certify that the work incorporated in the project report entitled "The synthesis, purification and characterization of N-Heterocyclic compounds" Submitted by Parkale Mohini Dattatraya for the partial fulfilment of practical course PSCHO-246 for the degree of Master of Science in Organic Chemistry. The project was carried out in excellent /satisfactorily manner under my supervision in Department of Chemistry, Tuljaram Chaturchand College, and Baramati.

Project Guide

Head Department of Chemistry

Examined

Following

External



## A PROJECT REPORT ON

"Synthesis and characterisation of 2(3aryl 4-formylpyrazol-1yl) thiazole derivatives"

#### SUBMITTED TO

TULJARAM CHARTURCHAND COLLEGE, BARAMATI DIST - PUNE.

As Partial Fulfilment of M.Sc. Degree 2023 - 2024

SUBMITED BY

MIND PANKAJ CHANDRAKANT (15986) KADAM ABHAYSINHA VITTHAL(15954) SALVE YASH NAGSEN (15984)

UNDER THE GUIDANCE OF

Prof. Dr, R.S.BHONDWE



## CERTIFICATE

This is to certify that the work incorporated in the project report entitled "Synthesis and characterisation of 2(3aryl 4-formylpyrazol-1yl) thiazole derivatives" submitted by Mind Pankaj Chandrakant, Kadam Abhaysinha Vitthal, Salve Yash Nagsen for the partial fulfilment of practical course PSCHO-246 for the degree of Master of Science in Organic Chemistry. The project was carried out in excellent/satisfactory manner under my supervision in Department of Chemistry, Tuljaram Chaturchand College, Baramati.

(Project Guide)

(External)

(Head Department Of Chemistry)



#### A PROJECT REPORT ON

### "SYNTHESIS OF CHALCONE"

#### SUBMITTED TO

# TULJARAM CHARTURCHAND COLLEGE, BARAMATI DIST - PUNE.

As Partial Fulfilment of M.Sc. Degree 2023 - 2024

SUBMITED BY

NICHAL BUDHHABHUSHAN DILIP

UNDER THE GUIDANCE OF

Prof. Dr BHONDAWE R. S



ANEKANT EDUCATION SOCIETY'S.

# TULJARAM CHATUARCHAND COLLEGE, BARAMATI 413102

DEPARTMENTOF CHEMISTRY

#### CERTIFICATE

This is to certify that the work incorporated in the project entitled "Synthesis and Characterization of Chalcone". Submitted by Nichal Buddabhushan. for the partial fulfilment of practical coure PSCHO-5406 for the degree of Master of Science in Organic Chemistry. The project was carried out in excellent/satisfactorily manner under my supervision in Department Of Chemistry, Tuljaram Chaturchand College, Baramati.

Project Guide)

Head , Department of Chemistry )



# A Project Report on

# "SYNTHESIS AND CHARACTERIZATION OF SILVER NANOPARTICLES BY USING ALOE VERA LEAF EXTRACT AND IT'S ANTIMICROBIAL ACTIVITY"

Submitted to

TULJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND SCIENCE, BARAMATI, PUNE

As a partial fulfilment of the degree master of science in organic chemistry

By

**TAKALE SAHITA RAVINDRA (16003)** 

Under the guidance of

Miss. Prof. F. H. SHAIKH

**Department of Chemistry** 

Tuljaram Chaturchand College of Arts, Commerce and Science, Baramati.Pune

2023-24

#### Certificate

This is to certify that. Miss. TAKALE SAHITA RAVINDRA has successfully completed the project. "Synthesis and characterization of silver nanoparticles by using ALOE VERA leaf extract and it's antimicrobial activity. Which is being submitted here with as a partial fulfillment of the award of degree, master of science in analytical chemistry, TULIARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND SCIENCE, BARAMATI PUNE. is the result of project work completed under my supervision and to the best of my knowledge and belief the work embodied in this is report has not formed earlier for any degree of similar title of this or any other University or examining body. Examined.

DATE:

Project guide

External

Examiner



Tuljaram Chaturchand College of Arts, Commerce and Science,

Baramati, Dist.-Pune

Year: 2023-24

A Project Report

On

# "Synthesis Characterization and Calculation of Economy of Schiff Bases Formation and its Application"

Submitted by

**Umap Prathamesh Popat** 

Roll No: 15961

Exam No:

Karche Tejas Sunil

Roll No: 15957

Exam No:

Under the guidance of

Prof. Shaikh F. H.



# Certificate

This is to certify that the work incorporated in the project "Synthesis Characterization and Calculation of Economy of Schiff Bases Formation and its Application" Submitted by Mr. Umap Prathamesh Popat and Mr. Karche Tejas Sunil for the award of the degree of Master of Science in Chemistry by Department of Chemistry, Tulajaram Chaturchand College of Art, Commerce and Science Baramati was carried out by the candidate under the supervision of Prof. Shaikh F. H. Department of Chemistry Tulajaram Chaturchand College of Art, Commerce and Science, Baramati during April 2024.

Blond we

Examiner

**Department of Chemistry** 

Place: Baramati

Date:



# **Anekant Education Scoiety s**

TuljaramChaturchand College, Baramati 413102

Affiliated to SavitribaiPhule, PuneUniversity, Pune

Project Report On,

"Synthesis, Characterization and Applications of Metal Oxide Nanoparticles (MgO, MoO) by Green Method"

PROJECT REPORT SUBMITTED TO,

### DEPARTMENT OF CHEMISTRY

As partial fulfillment of M.Sc degree 2023-24

By,

Mr. Kare Shripad Ramchandra

Mr. Dhaigude Sani Daulat

Mr. Shelke Akshay Bhausaheb

Miss. Chavan Anushka Bharat

Under the guidance of

Prof. Deokate S.A.



# ANEKANT EDUCATION SOCIETYS,

# TULJARAM CHATURACHAND COLLEGE,

## **BARAMATI 413102**

# DEPARTMENT OF CHEMISTRY

### CERTIFICATE

This is to certify that the work incorporated in the project report entitled "Synthesis, Characterization and Applications of Metal Oxide Nanoparticles (MgO, MoO) by Green Method"submitted by Kare Shripad Ramchandra, Dhaigude Sani Daulat, Shelke Akshay Bhausaheb, Chavan Anushka Bharat. for the partial fulfillment of practical course PSCHO- 245 for the degree of Master of Chemistry in Organic Chemistry. The project was carried out in excellent /satisfactory manner under my supervision in Department Of Chemistry Tuljaram Chaturchand College, Baramati

Prof. Deokate S.A.

( Project Guide )

Head, Department of Chemistry)



Tuljaram Chaturchand College of Arts, Commerce and Science,

Baramati, Dist.-Pune

Year: 2023-24

A Project Report

On

# Synthesis Characterization and Applications of Cobalt, Manganese and Nickel Nanoparticles

### Submitted by

Kharat Suhasini Yuvraj

Roll No: 15960

Exam No:

Kale Priyanka Balu

Roll No: 15990

Exam No:

Namdas Archana .A

Roll No:16001

Exam No:

Under the guidance of

Prof. Deokate S.A.



# CERTIFICATE

This is to certify the work incorporated in the project report entitled "Synthesis Characterization and Applications of Cobalt, Manganese and Nickel Nanoparticles" submitted by Miss. Kharat Suhasini Yuvraj, Kale Priyanka Balu & Namdas Archana A. for the award of the degree of Master of Science in Chemistry by Department of Chemistry, Tuljaram Chaturchand College of Arts, Commerce and Science, Baramati was carried out by the candidate under the supervision of Prof. Deokate S.A. Department of Chemistry, Tuljaram Chaturchand College of Arts, Commerce and Science, Baramati during April 2024.

A dinator

Examined

Thanks

Transper

Department of Chemistry

Place: Baramati

Date:



Anekant Education Society's, Tuljaram Chaturchand College, Baramati 413102

Affiliated to Savitribai Phule, Pune University, Pune

#### Project Report on,

Synthesis, Characterization and Applications of ZnO, FeO and CuO Nanoparticles by Chemical and Green Method.

Project report Submitted to,
DEPARTMENT OF CHEMISTRY.

As partial fulfilment of MSc degree, 2023-2024

By,

Mr. Deokate Sahil Balasaheb

Ms. Khomane Siddhi Dattatray

Ms. Salunke Pranjal Avinash

Ms. Gaikwad Anjali Dipak

Under the guidance of Prof. Deokate S. A.



# ANEKANT EDUCATION SOCIETY'S TULJARAM CHATURCHAND COLLEGE, BARAMATI 413102

DEPARTMENT OF CHEMISTRY

#### CERTIFICATE

This is to certify that the work incorporated in the project report entitled "Synthesis, Characterization and Applications of ZnO, FeO and CuO Nanoparticles by Chemical and Green Method" submitted by Deokate Sahil Balasaheb, Khomane Siddhi Dattatray, Salunke Pranjal Avinash, Gaikwad Anjali Dipak for the partial fulfilment of project course PSCHO-246 for the degree of Master of Science in Organic Chemistry. The project was carried out in excellent/ satisfactorily manner under my supervision in Department Of Chemistry, Tuljaram Chaturchand College, Baramati.

Prof. Deokate S. A.

(Project Guide)

(Head Department Of Chemistry)

Thankh 23/21/24 External



A Project Report on

# "SYNTHESIS, CHARACTERIZATION AND BIOLOGICAL ACTIVITY OF OXIMES DERIVED FROM ORGANIC COMPOUNDS"

Submitted To

#### DEPARTMENT OF CHEMISTRY

TULJARAM CHATURCHAND COLLEGE OF ARTS ,COMMERCE AND SCIENCE, BARAMATI- PUNE

As a partial fulfillment of the Degree Master of Science in Organic Chemistry

By

Miss. GAWATE DIVYA SUNIL (15995)

Miss. SHIRSAT SHRADDHA MARUTI (15987)

Mr. DADAS AKSHAY KALIDAS (15973)

Under The Guidance of

Miss.Prof.F.H.Shaikh.



#### CERTIFICATE

This is to certify that, Ms.Gawate Divya Sunil ,Ms. Shirsat Shraddha Maruti, Mr.Dadas Akshay Kalidas has successfully completed the project work on Synthesis, Characterization and Biological activities of Oximes Derived from organic Compound which being submitted here with as a partial fulfillment of the award of Degree, Master of Science in Organic Chemistry at TULJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE, AND SCIENCE BARAMATI, PUNE.

All the information in this work is genuine to the best of my knowledge.

DATE: 20/4/2024

Project Guide

Department of Chemistry

Examined

Examiner

Head of Department

Department of Chemistry



A project report on

# "SYNTHESIS AND CHARACTERIZATION AND BIOLOGICAL ACTIVITY OF HETEROCYCLIC DERIVED FROM CHALCONE"

Submitted to

Department of Chemistry
ANEKANT EDUCATION SCOIETY'S,
TULJARAM CHATURCHAND COLLEGE OF
ARTS, COMMERCE AND SCIENCE, BARAMATI,
DIST-PUNE YEAR: 2023-24

AS A PARTIAL FULFILMENT OF THE DEGREE

MASTER OF SCIENCE OF ORGANIC CHEMISTRY

SUBMITTED BY

By

Mrs. ANGRE KALYANI BHARAT

Roll No- 15996

Under the guidance of

Prof. Shaikh F. H.

# CERTIFICATE

This is to certify the work incorporated in the project report entitled "Synthesis and characterization and biological activity of heterocyclic derived from chalcone" submitted by Ms. Angre kalyani bharat for the award of the degree of Master of Science in Chemistry by Department of Chemistry, Tuljaram Chaturchand College of Arts, Commerce and Science, Baramati was carried out by the candidate under the supervision of Prof. Shaikh F. H. Department of Chemistry, Tuljaram Chaturchand College of Arts, Commerce and Science, Baramati during April 2024

Hauks 2014124

Project quide

Examined

24104124

Examiner

1 Doname HODW/4/24

Department of chemistry

#### A PROJECT REPORT ON

# Synthesis of sunscreen containing zinc oxide comparision of sun protection factor

#### SUBMITTED TO

TULJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND SCIENCE, BARAMATI.PUNE



AS A PARTIAL FULFILMENT OF THE DEGREE
MASTER OF SCIENCE IN ORGANIC CHEMISTRY

By Mr. KOLEKAR SUMIT PRASHANT(15953) Mr. PISAL SURAJ NANA (15999)

UNDER THE GUIDANCE OF

Miss. Prof. F.H.Shaikh

DEPARTMENT OF CHEMISTRY

2023-24



#### Certificate

This is to certified that they work incorporated in the project, Pisal Suraj N, Kolekar Sumit P has successfully completed the project work on "Synthesis of sunscreen containing Zinc Oxide comparision of sun protection factor". Which is being submitted herewith as a partial fulfillment of the award of degree, master of science in Organic chemistry, Tuljaram Chaturchand College Of Arts, Commerce and Science, Baramati, Pune is the.

Result of project work completed under my supervision and to the best of my knowledge and belief the work embodied in thisis reported has not formed earlier for any degree of similar title of this or any other University or examining body.

DATE: 20/04/2024

Miss. Prof. F.H. Shaikh Project Guide

Examined.

EXTERNAL EXAMINER

Department of Chemistry

Blondie.

T.C. College, Baramati.



Tuljaram Chaturchand College of Arts, Commerce and Science,

Baramati, Dist.-Pune

Year: 2023-24

Project Report

On

"Synthesis Characterization and Biological Activity of thiosemicarbazone"

Submitted by

Gadadare Sanikumar vilas

Roll No: 15983

Exam No:

Under the guidance of

Prof. Shaikh F. H.



#### Certificate

This is to certify the work incorporated in the project report entitled "Synthesis Characterization and biological activity of thiosemicarbazone" submitted by Mr. Gadadare Sanikumar vilas for the award of the degree of Master of Science in Chemistry by Department of Chemistry, Tuljaram Chaturchand College of Arts, Commerce and Science, Baramati was carried out by the candidate under the supervision of Prof. Shaikh F. H. Department of Chemistry, Tuljaram Chaturchand College of Arts, Commerce and Science, Baramati during April 2024.

Place:Baramati

Date:-

PG Coordinator

\$ londone

Examined

Following

Examiner

1 13 wood we HOD 14/24.

Department of Chemistry



# DEPARTMENT OF CHEMISTRY

# TULJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND SCIENCE, BARAMATI.PUNE

2023-24

#### A PROJECT REPORT ON

"PREPARATION OF MOSQUITO REPELLENT DHOOP FORM ORANGE PEEL'S."

#### SUBMITTED TO

TULJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND SCIENCE, BARAMATI.PUNE

AS A PARTIAL FULFILMENT OF THE DEGREE
MASTER OF SCIENCE IN ORGANIC CHEMISTRY

By

LAVATE TANUJA SUNIL (15991) UNDER THE GUIDANCE OF

Miss. Prof. F.H. Shaikh.



# TULJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND SCIENCE, BARAMATI.PUNE

### Certificate

This is to certify that, Miss. LAVATE TANUJA SUNIL has successfully completed the project work on "PREPARATION OF MOSQUITO REPELLENT DHOOP FORM ORANGE PEELS" Which is being submitted here with as a partial fulfilment of the award of degree, Master of Science in Organic chemistry, TULJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND SCIENCE, BARAMATI.PUNE is the result of project work completed under my supervision and to the best of my knowledge and belief the work embodied in this is report has not formed earlier for any degree of similar title of this or any other University or examining body.

Examined.

External

Examiner

Dept.of chemistry T.C.College, Baramati.

DATE:

Project guide

External

## A PROJECT REPORT

ON

Synthesis and Characterization of a Coordination complexes of Ni and Cu with Diphenylamine

**SUBMITTED** 

To

TULJARAM CHATURCHAND COLLEGE OF ARTS, SCIENCE AND COMMERCE, BARAMATI, PUNE



# AS A PARTIAL FULFILLMENT OF THE DEGREE BACHLOR OF SCIENCE IN ORGANIC CHEMISTRY

By

MS.BHAPKAR MAYURI A
MS. SINHA JYOTI
MR. DHUMAL VISHWAJEET ANIL
MR. THOMBARE RUSHIKESH ANNA
UNDER THE GUIDANCE OF

Dr. N. C. Dige

M.Sc. Ph.D.

DEPARTMENT OF CHEMISTRY
TULJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND
SCIENCE, BARAMATI, PUNE

# TULJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND SCIENCE, BARAMATI, PUNE



CERTIFICATE

This is to certify that, Ms. bhapkar mayuri A., Ms. sinha Jyoti, Mr. Dhumal vishwajeet anil, Mr. Thombare rushikesh anna has successfully completed the project work on "Synthesis and Characterization of a Coordination complexes of Ni and Cu with Diphenylamine" which is being submitted herewith as a partial fulfillment for the award of degree, Bachlor of Science in Chemistry, Tuljaram Chaturchand College, Baramati is the result of project work completed under my supervision and to the best of my knowledge and belief the work embodied in this report has not formed earlier for any degree of similar title of this or any other University or examining body.

DATE- 10 / 4 / 2023 - 2024

Dr. N. C. Dige

Project Guide,

Dept. of Chemistry,

Head

DEPARTMENT OF CHEMISTRY Tuljaram Chaturchand College Baramati (Dist.Pune)



# "METHOD DEVELOPMENT AND VALIDATION OF PARACETAMOL BY UV VISIBLE SPECTROSCOPY"

A Project Report Submitted to the

# DEPARTMENT OF CHEMISTRY, TULJARAM CHATURCHAND COLLEGE OF ARTS, SCIENCE AND COMMERCE, BARAMATI, DIST- PUNE

In partial fulfilment of Degree of

Master of Science (Analytical Chemistry)

By

Mr. Patil Shubham Mohan

Roll No- 16193

Mr. More Rushank Yuvraj

Roll No- 16192

Under the Guidance of

Dr. Indulkar Yogesh Nana

YEAR 2023-24



### DEPARTMENT OF CHEMISTRY

#### CERTIFICATE

This is to certified that the work incorporated in the project report entitled "METHOD DEVELOPMENT AND VALIDATION OF PARACETAMOL BY UV VISIBLE SPECTROSCOPY" Submitted by Mr. Patil Shubham Mohan and Mr. More Rushank Yuvraj for the partial fulfilment of project cource PSCHA-246 for the degree of master of science in Analytical chemistry by Department of Chemistry, Tuljaram Chaturchand College, Baramati was carried out by the candidate under the supervision of Dr. Indulkar Yogesh Nana Department of Chemistry, Tuljaram Chaturchand College, Baramati during for academic year 2023-24.

Dr. Y.N.Indulkar Project Guide Dr. R.S.Bhondwe PG Coordinator

Head, Department of Chemistry

Place: Baramati

Date: 23 104 12024

#### "ANEKANT EDUCATION SOCIETY"

# TULJARAM CHATURCHAND COLLEGE OF ARTS, SCIENCE & COMMERCE, BARAMATI-413102



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#### A PROJECT REPORT ON

"COMPARATIVE STUDY OF THE GREEN & CHEMICALLY SYNTHESIED ZnO NANOPARTICALS FOR ANTIBACTERIAL ACTIVITY"

#### SUBMITTED TO

DEPARTMENT OF CHEMISTRY

### TULJARAM CHATURCHAND COLLEGE OF ARTS, SCIENCE AND COMMERCE BARAMATI

By

Name	Roll No.
Ms. Chavan Jyoti Bhaskar	16225
Mr. Gaikwad Vivek Hanmant	16210
Mr. Ghule Sushant Damodar	16207
Mr. Gaikwad Vishal Shamrao	16204
Mr. Magdum Darshan Dhananjay	16201

### UNDER THE GUIDENCE OF

Asst. Prof. H. J. Salunkhe

2023-2024

#### "ANEKANT EDUCATION SOCIETY"

# TULJARAM CHATURCHAND COLLEGE OF ARTS, SCIENCE &COMMERCE, BARAMATI-413102

(Autonomous)



#### CERTIFICATE

This is to certify that Ms. Chavan Jyoti Bhaskar, Mr. Gaikwad Vivek Hanmant, Mr. Ghule Sushant Damodar, Mr. Gaikwad Vishal Shamrao and Mr. Magdum Darshan Dhananjay, regular students of class M.Sc.-II (Chemistry) has completed project on "Comparative Study Of Green & Chemically Synthesized ZnO NPs For Anti-bacterial Activity" in the partial fulfilment of the program in M.Sc. II as per the syllabus laid by Tuljaram Chaturchand College of Arts, Science and Commerce Baramati, during the academic year 2023-2024 conducted under my supervision.

Asst. Prof. H. J. Salunkhe

**Project Guide** 

Examiner Examiner

Department of Chemistry

PLACE: BARAMATI

DATE 20/04/ 2024

#### A PROJECT REPORT ON

COMPARATIVE ASSESSMENT OF GREEN AND CHEMICALLY SYNTHESIZED EDTA CAPPED SILVER NANOPARTICLES FOR ANTIOXIDANT ACTIVITY

#### SUBMITTED TO

TULJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND SCIENCE, BARAMATI PUNE.



# AS A PARTIAL FULFILMENT OF THE DEGREE MASTER OF SCIENCE IN ANALYTICAL CHEMISTRY

By

Nikam Prapti Yuvraj (16222)

Jagdale Pooja Pandharinath (16213)

Chougule Dhiraj Dadaso (16195)

Thorat Abhishek Vijay (16198)

### UNDER THE GUIDANCE OF

Prof. Salunkhe H.J.

## DEPARTMENT OF CHEMISTRY

TULJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND SCIENCE, BARAMATI.PUNE

2023-24

#### TULJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND SCIENCE, BARAMATI.PUNE



#### Certificate

This is to certify that, Miss. Nikam P. Y., Miss. Jagdale P.P., Mr. Chogule D.D., Mr. Thorat A.V. has successfully completed the project work on "comparative study of Green and chemically synthesized EDTA capped silver nanoparticles for antioxidant activity". Which is being submitted herewith as a partial fulfilment of the award of degree, master of science in analytical chemistry, TULJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND SCIENCE, BARAMATI, PUNE. is the result of project work completed under my supervision and to the best of my knowledge and belief the work embodied in this is report has not formed earlier for any degree of similar title of this or any Other University or examining body.

DATE: 20/04/2029

Project Guide

Prof. H. J. Salunkhe

Examiner Examiner

rof.

Department of Chemistry,

T. C. College, Baramati.

#### A PROJECT REPORT ON

Biosynthesis of Copper oxide and Iron oxide Nanoparticles using Neem (Azadirachta indica) Leaf Extract

#### **SUBMITTED TO**

TULJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND SCIENCE, BARAMATI PUNE.



# AS A PARTIAL FULFILMENT OF THE DEGREE MASTER OF SCIENCE IN ANALYTICAL CHEMISTRY

Ву

Bhoite Vishal Mahendra
Dombale Sneha Bapurao
Narute Vijay Dnyandev
Digge Samruddhi Gururaj
Ranaware Shweta Pramod

UNDER THE GUIDANCE OF

Miss. Prof. A.N. Bhong

DEPARTMENT OF CHEMISTRY

2023-24



#### Certificate

This is to certified that they work incorporated in the project, Mr. Bhoite V., Ms. Dombale S., Mr. Narute V., Ms. Digge S., Ms. RanawareS., has successfully completed the project work on "Biosynthesis of Copper oxide and Iron oxide Nanoparticles using Neem (Azadirachta indica) Leaf Extract". Which is being submitted here with as a partial fulfillment of the award of degree, master of science in analytical chemistry, TULJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND SCIENCE, BARAMATI, PUNE is the result of project work completed under my supervision and belief the work embodied in this is reported has not formed earlier for any degree of similar title of this or any other University or examining body.

DATE: 29104 pag

Miss. Prof. A.N. Bhong

Project Guide

Head, Department of Chemistry

T.C. College, Baramati.

EXTERNAL EXAMINER



# A PROJECT REPORT ON "EXTRACTION OF CURCUMIN FROM TURMERIC ROOT BY USING SOLVENT EXTRACTION METHOD"

SUBMITTED TO

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TULJARAM CHARTURCHAND COLLEGE, BARAMATI DIST - PUNE.

As Partial Fulfilment of M.Sc. Degree 2023 - 2024

SUBMITED BY

BHISE VIJAY KRUSHNA (16208)
KHATAL SANKET TANAJI (16202)
PATIL RUSHIKESH ANNASAHEB (16211)
DEVKATE RAHUL KALYAN (16205)

UNDER THE GUIDANCE OF

Prof. A. N. BHONG



#### Certificate

This is to certified that they work incorporated in the project Bhise Vijay Krushna, Khatal Sanket Tanaji, Patil Rushikesh Annasaheb, Devkate Rahul Kalyan has successfully completed the project work on "Extraction Of Curcumin From Turmeric Root By Using Solvent Extraction Method "Which is being submitted here with as a partial fulfillment of the award of degree, master of science in Analytical chemistry, Tuljaram Chaturchand College Of Arts, Commerce And Science, Baramati, Pune

Result of project work completed under my supervision and to the best of my knowledge and belief the work embodied in thisis reported has not formed earlier for any degree of similar title of this or any other University or examining body.

DATE:

Prof. L. N. BHONG

Project Guide

1 Prof. 2014 124

Head deapartment of chemistry

T. C. College Baramati.

#### A PROJECT REPORT ON

Synthesis and characterization of Nickel Oxide, Copper Oxide, Cobalt Oxide, and Zinc Oxide Nanoparticles.

#### SUBMITTED TO

TULJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND SCIENCE, BARAMATI PUNE.



# AS A PARTIAL FULFILMENT OF THE DEGREE MASTER OF SCIENCE IN ANALYTICAL CHEMISTRY

Ву

Thorat Trupti Tarachand (16197)

Solankar Priyanka Vijay (16221)

Patane Pratiksha Appaso (16212)

Sawant Apeksha Kailas (16209)

Talekar Prathamesh Anil (16200)

## UNDER THE GUIDANCE OF

Miss. Prof. G. S. Bhunje

DEPARTMENT OF CHEMISTRY

TULJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND SCIENCE, BARAMATI.PUNE

2023-24

# TULJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND SCIENCE, BARAMATI.PUNE



#### Certificate

This is to certify that, Miss. Thorat T.T., Miss. Solankar P.V., Miss. Patane P.A., Miss. Sawant A.K., Mr. Talekar P.A. has successfully completed the project work on "Synthesis and characterization of Nickel Oxide, Copper Oxide, Cobalt Oxide and Zinc Oxide Nanoparticles". Which is being submitted herewith as a partial fulfillment of the award of degree, master of science in analytical chemistry, TULJARAM CHATURCHAND COLLEGE OF ARTS, COMMERCE AND SCIENCE, BARAMATI, PUNE. is the result of project work completed under my supervision and to the best of my knowledge and belief the work embodied in this is report has not formed earlier for any degree of similar title of this or any Other University or examining body.

DATE:

Project Guide,

Miss. Prof. G. S. Bhunje

Examiner Park

Department of Chemistry,

T. C. College, Baramati.



#### **Anekant Education Society**

Tuljaram Chaturchand College of Arts, Science, and Commerce, Baramati
(Autonomous)
413102

#### A Project Report on

Phytochemical screening by FTIR, AAS, UV-Visible Spectroscopy analysis of Seed, Root, Stem & Leaf Extract of Argemone Mexicana plant.

#### Submitted to

#### **Department of Chemistry**

Tuljaram Chaturchand college of Arts, Science and Commerce, Baramati (Autonomous)

By

Name	Roll No
Ms. Shingade Pratiksha Dhanaji	16206
Ms. Deokate Sakshi Chhagan	16224
Mr. Pawar Vaibhav Dnyaneshwar	16194
Mr. Nevase Rushikesh Somnath	16203

Under the Guidance of

Asst. Prof: G.S.Bhunje



### CERTIFICATE

This is to certify that partial fulfillment of curriculum MSc-II Students Ms. Shingade Pratiksha Dhanaji, Ms. Deokate Sakshi Chhagan, Mr. Pawar Vaibhav Dnyaneshwar & Mr. Nevase Rushikesh Somnath. Have successfully completed the project work in the Chemistry entitled "Phytochemical screening by FTIR, AAS, UV-Visible Spectroscopy analysis of Leaf, Stem, Seed & Root extract of Argemone Mexicana plants" prescribed by Tuljaram Chaturchand Collage of Arts, Science and Commerce Baramati during academic year 2023-2024

This is a record of Bonafede work carried out by them under my supervision and guidance.

Asst. Prof. G.S. Bhunje.

Project Guide

Department of Chemistry

Place: Baramati

Date 20/04/2024