

**SYNTHESIS OF PURE ZINC OXIDE AND MIXED METAL OXIDE  
NANOPARTICLES AND ITS APPLPLICATION IN DYE DEGRADATION**

A Dissertation Report for  
Course code and Course Title: CGO-500 Dissertation  
Credits: 8  
Submitted in partial fulfilment of Master's Degree  
M.Sc. (Inorganic Chemistry)

By

**VISHAKA DAMODAR NAIK**

Roll Number: 21P049055

Under the Supervision of

**Dr. ROHAN K. KUNKALEKAR**

School of chemical sciences  
Inorganic chemistry



**Goa University**

Date: April 2023



Seal of the School

Examined by:

*[Handwritten signatures and dates]*  
08/05/2023  
08/05/2023  
08/05/2023


### COMPLETION CERTIFICATE

This is to certify that the dissertation report "SYNTHESIS OF PURE ZINC OXIDE AND MIXED METAL OXIDE NANOPARTICLES AND ITS APPLICATION IN DYE DEGRADATION" is a bonafide work carried out Ms. Vishaka D. Naik under my mentorship in partial fulfilment of the requirements for the award of the degree of Master's in Science in the Discipline Inorganic Chemistry at the School of chemical sciences, Goa University.



Dr. Rohan K. Kunkalekar  
Inorganic chemistry

Date: 20/04/2023



20/05/2023

Prof. V. M. S. Verenkar  
Inorganic chemistry  
School of chemical sciences  
Date:  
Place: Goa University

Dean  
School of Chemical Sciences  
GOA UNIVERSITY



School Stamp

### DECLARATION BY STUDENT

I hereby declare that the data presented in this Dissertation report entitled, "SYNTHESIS OF PURE ZINC OXIDE AND MIXED METAL OXIDE NANOPARTICLES AND ITS APPLLLICATION IN DYE DEGRADATION" is based on the results of investigations carried out by me in the Inorganic Chemistry at the School of Chemical Sciences, Goa University under the Mentorship of Dr.Rohan K. Kunkalekar and the same has not been submitted elsewhere for the award of a degree or diploma by me. Further, I understand that Goa University or its authorities will be not be responsible for the correctness of observations / experimental or other findings given the dissertation.

I hereby authorize the University authorities to upload this dissertation on the dissertation repository or anywhere else as the UGC regulations demand and make it available to any one as needed.



Vishaka D. Naik

21P049055

Inorganic Chemistry

School of Chemical Sciences

Date: 20/04/2023

Place: Goa University