



Idhaya College for Women, Kumbakonam  
Accredited with A+ Grade by NAAC 1<sup>st</sup> Cycle

NAAC AQAR 2023-2024

1.3 Curriculum Enrichment

1.3.2 Number of Courses Project Work / Field Works /  
Internships

# Project Work


## Department of Physics

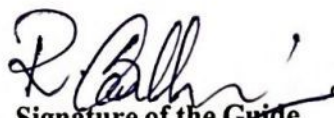
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### CERTIFICATE

This is to certify that the dissertation entitled “SYNTHESIS AND CHARACTERIZATION OF ZINC OXIDE DOPED COPPER OXIDE NANOPARTICLES BY CO-PRECIPIATION METHOD” Submitted to Bharathidasan University in the Partial fulfillment for the award of the degree of Master of Science in Physics to Idhaya College for Women, Kumbakonam, is a bonafide theoretical work carried out by S. AKSHARA (Reg. No. P 22203701) under my guidance during the academic year 2023-2024.


  
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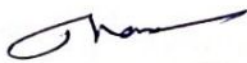
Department of Physics,

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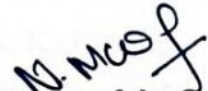
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### CERTIFICATE

This is to certify that the dissertation entitled "SYNTHESIS CHARACTERIZATION OF ZINC OXIDE NANOPARTICLES PREPARED BY SOL-GEL METHOD USING (PVA) AS CAPPING AGENT" Submitted to Bharathidasan University in the Partial fulfillment for the award of the degree of Master of Science in Physics to Idhaya College for Women, Kumbakonam, is a bonafide theoretical work carried out by K. KALAIVANI (Reg. No. P22203702) under my guidance during the academic year 2023-2024.



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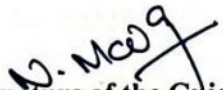
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### CERTIFICATE

This is to certify that the dissertation entitled “SYNTHESIS AND CHARACTERIZATION OF ZIRCONIUM OXIDE NANOPARTICLES BY USING HYDROTHERMAL METHOD” Submitted to Bharathidasan University in the Partial fulfilment for the award of the degree of **Master of Science in Physics** to **Idhaya College for Women, Kumbakonam**, is a bonafide theoretical work carried out by **G. KAVIYA (Reg. No. P22203703)** under my guidance during the academic year **2023-2024**.

  
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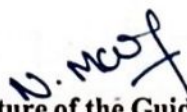
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**CERTIFICATE**

This is to certify that the dissertation entitled **“BIOSYNTHESIS AND CHARECTERISTICS OF ZINC OXIDE NANOPARTICLE USING SOL-GEL METHOD AND THEIR ANTIBACTERIAL ACTIVITY** Submitted to Bharathidasan University in the Partial fulfilment for the award of the degree of **Master of Science in Physics** to Idhaya College for Women, Kumbakonam, is a bonafide theoretical work carried out by **M. NESHKA (Reg. No. P 22203704)** under my guidance during the academic year 2023-2024.



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This is to certify that the dissertation entitled “SYNTHESIS AND CHARACTERIZATION OF ZINC OXIDE AND CHROMIUM NANOPARTICLES BY CO-PRECIPIATION METHOD” Submitted to Bharathidasan University in the Partial fulfilment for the award of the degree of Master of Science in Physics to Idhaya College for Women, Kumbakonam, is a bonafide theoretical work carried out by K.NESIKA (Reg. No. P22203705) under my guidance during the academic year 2023-2024.



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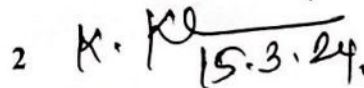


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**CERTIFICATE**

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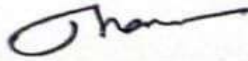
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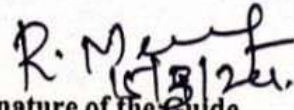
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### CERTIFICATE

This is to certify that the dissertation entitled "SYNTHESIS OF NANOPOWDER BY USING catharanthus roseus EXTRACT AND ITS CHARACTERISTICS OF XRD, SEM AND ANTIMICROBIAL ACTIVITY OF *Klebsiella species*" submitted to Bharathidasan University in the Partial fulfilment for the award of the degree of MASTER OF <sup>SCIENCE</sup> IN PHYSICS to IDHAYA COLLEGE FOR WOMEN KUMBAKONAM is a bonafied theoretical work carried out by V.PRIYADHARSHINI (Reg. No. P 22203708) under my guidance during the academic year 2023-2024.



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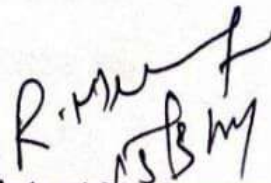
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## CERTIFICATE

This is to certify that the dissertation entitled **“GREEN SYNTHESIS OF ZINC OXIDE NANOPARTICLES USING CYPERUS ROTUNDUS AND CHARACTERIZATION OF ANTIMICROBIAL ACTIVITY”** Submitted to Bharathidasan University in the Partial fulfilment for the award of the degree of **MASTER OF SCIENCE IN PHYSICS** to **Idhaya College for Women, Kumbakonam**, is a bonafide theoretical work carried out by **P. RAJESWARI (Reg. No. P 22203709)** under my guidance during the academic year **2023 - 2024**.




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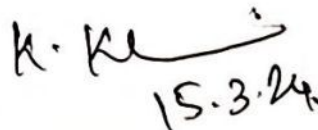
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## **CERTIFICATE**

This is to certify that the dissertation entitled “**BIOSYNTHESIS OF ZINC OXIDE NANOPOWDER BY USING CATHARANTHUS ROSEUS FLOWER EXTRACT AND ITS CHARACTERIZATION OF XRD, SEM, AND ANTIBACTERIAL ACTIVITY OF E.coli**” Submitted in partial fulfilment for the award of the Degree of **MASTER OF SCIENCE IN PHYSICS** to **Idhaya College for Women, Kumbakonam**, is a bonafide theoretical work carried out by **T.RAMAPRIYA (Reg. No. P 22203710)** under my guidance during the academic year **2023-2024**.



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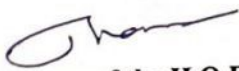
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### CERTIFICATE

This is to certify that the dissertation entitled “SYNTHESIS AND CHARACTERIZATION OF TITANIUM DIOXIDE DOPED ZINC OXIDE (TiO<sub>2</sub>-ZnO) NANO PARTICLES BY CO-PRECIPITATION METHOD” submitted to Bharathidasan University in the partial fulfilment for the award of the degree of Master of Science in physics to Idhaya College for women, Kumbakonam, is a bonafide theoretical work carried out by R. SIVARANJANI (Reg. No. P 22203711) under my guidance during the academic year 2023-2024.

  
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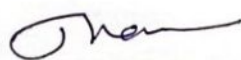
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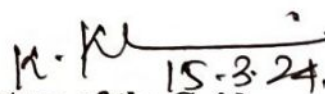
### CERTIFICATE

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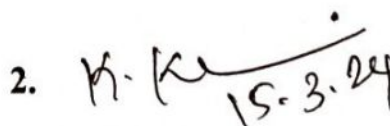
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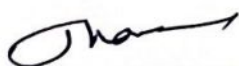
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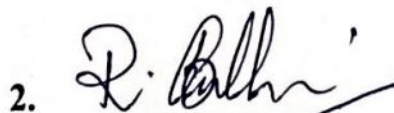


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