



Sri Dharmasthala Manjunatheshwara College
(Autonomous), Ujire-574 240, Dakshina Kannada, Karnataka State

Poornaprajna Institute of Scientific Research

Promoted and Managed by Admar Mutt Education Foundation (AMEF)
Recognised by Department of Scientific & Industrial Research (DSIR) and MAHE, Manipal
City Campus : # 4, 16th Cross, Sadashivanagar, Bengaluru - 560 080. **Ph** : 080 - 2361 1836
Research Institute : # 167, Poornaprajnapura, Bidalur Post, Devanahalli, Bengaluru - 562 164
Email : admin@poornaprajna.org ; **Web** : www.ppisr.res.in



Dated: 05-11-2022

TO WHOM IT MAY CONCERN

It is to certify that **Ms. Aishwarya Ramachandra Jain**, an MSc. student of **Sri Dharmasthala Manjunatheshwara College, Ujire (Mangalore University)** carried out the project work titled "*Catalytic Oxidation of Toluene to Benzaldehyde*" in the **Materials Science and Catalysis Division** of **Poornaprajna Institute of Scientific Research (PPISR), Bengaluru (Bidalur Campus)**. Her project work was done within 4 weeks of time period from 06-10-2022 to 05-11-2022.

This Certificate document issued as a proof of her project work carried out at **PPISR Bengaluru**.

Project Guide

Rajib K. Singha

Dr. Rajib Kumar Singha

Assistant Professor

Materials Science and Catalysis Division

Poornaprajna Institute of Scientific Research (PPISR), Bengaluru

Bidalur Campus, Post – Bidalur

Devanahalli – 562164



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04-11-2022

Bengaluru

CERTIFICATE

This is to certify that Ms. Chaithra V. R., the student of Dept. of Chemistry, Sri Dharmasthala Manjunatheshwara College (Autonomous), Ujire completed her research internship entitled as a partial fulfillment of the requirement for the award of “**Master of Science in General Chemistry**”. During this period, pursued her research work on “**Shape-engineered hybrid (ZnO/Pd) nanoparticles for dye degradation applications**” and acquainted with knowledge on catalysts synthesis and materials characterization using PXRD and testing of sample (dye-degradation) using UV-Visible spectrometry. It is a bona fide record of the research work carried out by her under the supervision of Dr. Naresh Nalajala from 06-10-2022 to 05-11-2022, at Department of Materials Science and Catalysis, Poornaprajna Institute of Scientific Research (PPISR), Bengaluru.

Dr. Naresh Nalajala
05/11/2022

Dr Naresh Nalajala
Assistant Professor
Materials Science and Catalysis Division
Poornaprajna Institute of Scientific Research (PPISR)



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CERTIFICATE

This is to certify that the work incorporated in this project report “Acetalization of Glycerol with Benzaldehyde over Sulfonated Mesoporous Polymer” was carried out at Poornaprajna Institute of Scientific Research by Dhanusha u salian, students of M.Sc. Chemistry, Sri Dharmasthala Manjunatheshwara College (Autonomous), Ujire.

Project Guide

Dr. Sanjeev P. Maradur

Associate Professor,
Materials Science and Catalysis Division,
Poornaprajna Institute of Scientific
Research, Devanahalli, Bengaluru – 562164
E-mail:sanjeevpm@poornaprajna.org



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05-11-2022

Bengaluru

CERTIFICATE

This is to certify that **Ms. Surabhi R. Shetty**, the student of Dept. of Chemistry, Sri Dharmasthala Manjunatheshwara College (Autonomous), Ujire conducted her M.Sc. project internship entitled as **“Designing of tin based heterogeneous catalyst for ring-opening of epoxides by aniline under solvent-free Condition”** as a partial fulfilment for the award of “Master of Science” in Chemistry. She acquainted with the knowledge of catalyst preparation, conducting reaction in glass batch reactor and product analysis using gas chromatograph. It is a bona fide record of the work carried out by her under the supervision of Dr. G. V. Shanbhag for 30 days from 06-10-2022 to 04-11-2022 at Poornaprajna Institute of Scientific Research, Devanahalli, Bengaluru. This research work was carried out by her entirely at PPISR. Her work and conduct were found to be satisfactory.

Dr. Ganapati V. Shanbhag

Associate Professor and HOD

Materials Science and Catalysis Division

Poornaprajna Institute of Scientific Research (PPISR)

Dr. Ganapati V Shanbhag
HOD and Associate Professor
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