

RESHMA POULOSE

Vadakkepurath, Wayanad, Kerala

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Professional Summary

A dedicated and enthusiastic job seeker with a superior master's degree in chemistry from Trichy, strong organizational skills, and a desire to secure entry-level positions in R&D. Willing to assist the team accomplish corporate goals.

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Education

MSc Chemistry	2017-2019
<i>National Institute of Technology Tiruchirappalli</i>	CGPA: 8.3/10
BSc Chemistry	2014-2017
<i>St. Mary's College Sulthan Bathery</i>	CGPA: 5.4/6
Higher Secondary	2012-2014
<i>Jawahar Navodaya Vidyalaya Wayanad</i>	CBSE: 93.2%
High School	2011-2012
<i>SP&SP EHS Meenangadi</i>	KPBE: 95%

Academic Project / Internships

Catalytic Activity of Ru (II)(p-cymene) Polyoxoniobates Complexes for Transfer Hydrogenation and Biofuel Synthesis: MSC

Guide: Dr. Somenath Garai

Dec 2018 - June 2019

- ❖ Synthesised Ru (II)(p-cymene) Complexes of Polyoxoniobates as per literature and characterized using analytical and spectral techniques such as FT-IR, UV-Vis and NMR.
- ❖ It was discovered that Ru (II) complexes of polyoxoniobates are an efficient base free catalyst for converting carbonyl compounds to alcohols using 2-propanol as a hydrogen source.
- ❖ The conversion of carbonyl compounds to alcohol using the catalyst was confirmed to be chemoselective, with a yield of up to 99% obtained with a catalytic amount of only 0.5 mol%.
- ❖ The scope of the catalysis was expanded to include biomass conversion i.e., levulinic acid to γ -Valerolactone (GVL), a significant biofuel. This conversion was carried out in 2-propanol under base free condition. GVL obtained with selectivity of 95% in 1 mol% of catalyst at 100°C.

Determination of Saponification Value of Esters: BSc

Guide: Dr. Nirmala K N

Dec 2016- May 2017

- ❖ Glycerol and Potassium or Sodium Salt of Fatty Acids are produced by alkaline hydrolysis of oils or fats with KOH or NaOH.
- ❖ The saponification value of various oils was studied, and it was discovered that the saponification value decreases with increasing molecular weight.

Work Shop/ Seminar

- ❖ Participated in the workshop conducted by Department of Biomedical Science, School of Basic Medical Sciences, Bharthidasan University, Tiruchirappalli on “*Techniques in Clinical Hematology and Biochemistry*” which provided class demonstration and hands on training in Clinical Haematology and Biochemistry Techniques- 2018
- ❖ Participated in a 5-day workshop on "Instrumental Method of Analysis" hosted by the Department of Energy and Environment at NIT Tiruchirappalli in- 2019.
- ❖ Participated in a workshop on science leadership hosted by Central University Punjab-2020

Academic Achievements

- ❖ GATE 2023 Chemistry paper qualified.

Skills

- ❖ Strong foundation in organic, physical, and inorganic chemistry.
- ❖ Good understanding of how to identify, characterize, and analyse products made by organic and inorganic synthesis, as well as identifying and accessing the purity of compounds via TLC and isolating compounds from crude extract via column chromatography.
- ❖ Extensive knowledge of FT-IR, UV-Vis spectrophotometer, GC, GC-MS, NMR, and chromatographic techniques.
- ❖ Carrying out literature survey and experimental planning for new product development.
- ❖ Knowledge on the Preparation of Standard Solutions, Test Solutions, and Reagents for Synthetic Workouts.
- ❖ Experience in chemical analysis and testing procedures.
- ❖ Proven ability to create and deliver reports while meeting deadlines, as depicted through my academic records
- ❖ Calibration of Equipment and glass wares.
- ❖ Working for good laboratory practises.
- ❖ Knowledge of computer hardware and software systems and applications.
- ❖ Maintain proper records and keep up-to-date experiments in the lab.
- ❖ Reference sample testing and analysis.
- ❖ Ability to tabulate and interpret data, prepare technical reports, and present at review meetings.
- ❖ Good knowledge of different database search engines like PubChem, chem Spider, etc.

- ❖ Technical writing skills and effective communication.
- ❖ Ability to work effectively in a team or on one's own.
- ❖ Analytical and logical thinking ability.
- ❖ Fast learner and Excellent problem-solving skills.
- ❖ Theoretical understanding of numerous analytical methodologies and analytical data interpretation skills.

Work Experience

Subject Matter Expert

Chegg India Private Limited (2019-2020)

- ❖ Accomplished the task of answering 1000 questions per day.
- ❖ Resolved various queries on NMR, FT-IR, and mass spectra.
- ❖ Improved overall quality of answering questions.

Home Tuition

- ❖ Developed and implemented an easy learning method for students that resulted in increasing marks by 20 percent.
- ❖ Motivate students to achieve their academic goals.
- ❖ Managed students over 25 and made them score over 95% in board exams.

Area of Interests

- ❖ **Research and Development:** Paint, Polymer, Construction Chemicals, Petrochemicals, Pharmaceuticals, Adhesives,
- ❖ **Quality control & Quality Assurance:** Testing, Handling of instruments
- ❖ **Chemical Analysis:** Analytical Testing of Chemicals
- ❖ **Synthesis:** Organic and Inorganic Compound Synthesis for Product Development
- ❖ **Chemist**

Languages

- ❖ English *Proficient*
- ❖ Malayalam *Proficient*
- ❖ Hindi *Intermediate*
- ❖ Tamil *Beginner*

