

# ROSHNY ROY

06-06-1997  
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## APPLYING FOR DOCTORAL POSITION

### EXPERIENCE

#### **RESEARCH ASSISTANT**

DDRC/FIST RESEARCH MATERIAL LAB  
NEWMAN COLLEGE

- Assisted in Organic Synthesis and Electrochemistry Works.
- A facile synthesis of porous graphene oxide for wastewater treatment.
- Synthesis of glucose-reduced graphene oxide for wastewater treatment.

#### **SUBJECT MATTER EXPERT IN CHEMISTRY**

ACADECRAFT

- Developing academic content for Chemistry.
- Creating academic content: test series, a question bank, assessments, questions and answers, and textbook solutions.
- Working on Math Type and LaTeX for writing equations and formulas.
- Creating plagiarism-free content, rectifying errors, and working on the quality check.

### **PROJECTS**

#### **Green synthesis of copper oxide and iron oxide nanoparticle (Undergraduate Project)**

- Eco-friendly green synthesis of copper oxide and Iron oxide from benign plants such as aloe vera and green tea.

#### **A facile synthesis of porous graphene oxide for wastewater treatment**

- Synthesis of porous graphene oxide from graphene oxide and NaOH.
- Characterization of pgo using XRD, BET, SEM, TGA.
- Application includes dye adsorption, heavy metal adsorption, and antimicrobial properties.

#### **Synthesis of glucose reduced graphene oxide for wastewater treatment**

- Green Synthesis of glucose reduced graphene oxide.

- Characterization of RGO using XRD, BET, SEM, TGA.
- The application includes dye adsorption, heavy metal adsorption, and antimicrobial properties.

### Synthesis and characterization of naphthaldehyde and benzothiazole based molecular imprinted polymer(ongoing)

- The monomer is synthesized from 2-aminobenzothiazole and 2-hydroxy-1-naphthaldehyde and a complex of copper is synthesized with the monomer.
- The copper complex is then modified with graphene oxide and polymerized to form the metal imprinted polymer.
- MIP is used for the removal of heavy metal ions from water.

### EDUCATION

COURSE	YEAR OF PASSING	BOARD/UNIVERSITY	INSTITUTE	GRADE POINTS	PERCENTAGE
<b>Master of Science in Chemistry</b>	2021	Mahatma Gandhi University Kottayam	Newman College, Thodupuzha	3.35/4	84%
<b>Bachelor of Science in Chemistry</b>	2018	Mahatma Gandhi University Kottayam	Nirmala College, Muvattupuzha	9.03/10	85.8%
<b>PLUS TWO</b>	2015	Central Board of Secondary Education	Carmel Public School, Vazhakulam		84 %
<b>S.S.L.C</b>	2013	Central Board of Secondary Education	Carmel Public School, Vazhakulam	9.2/10	87.4 %

### SKILLSETS

- Experimental Skills
  - Proficient in Electrochemical workstation.
  - Familiar with Raman, AFM, FTIR, UV, XRD, PCR, Gel-Electrophoresis
- Software/Computational Skills
  - Familiar with Python, Math Lab, Origin Pro, MS Office, Chem Draw
  - Familiar with Docking and molecular simulation (Pymol, VMD, chimera, Gromacs).

## **PROFESSIONAL CERTIFICATE**

- Spectral interpretation of organic compounds  
St Aloysius College (Autonomous), Mangalore

## **CONFERENCE**

- Current innovation and future of therapeutics
- Drug design-Is it really easy?
- Molecular Crystallography

## **RESEARCH INTEREST**

- Biochemistry
- Electrochemistry
- Drug-Discovery
- Nanochemistry

## **WORKSHOP**

- Advanced MD Simulation-IISER Pune
- Microscale Experiment in Chemistry

## **ACHIEVEMENTS**

- Passed out as a top student in both undergraduate (4<sup>th</sup> position) and post-graduation program (3<sup>rd</sup> position) in Chemistry.
- KPRC Scholarship (2015-2020) Full-tuition Scholarship awarded.
- Best NSS Volunteer (2018).
- Second position in Speech Competition at St Vincent De Paul Central Council (2019-2020).

## **EXTRA-CURRICULAR ACTIVITIES**

- NSS volunteer (2015-2016) and Volunteer Secretary (Captain) of NSS (2016-2017).
- General Secretary in Forane Level at Kerala Catholic Youth Movement (KCYM) and active member now.
- Active Member of Red Cross Community -International Humanitarian Community (2015-2018).
- Active Member of Jesus Youth Community (2015-2020).
- Professional Emcee-Hosted weddings, meetings, inaugurations.
- Avocation-Debater, Emcee, Orator, Dancing, Pencil Artist, Photography.

## **REFERENCES**

- Dr. Alex Joseph, Associate Professor  
Newman College, Thodupuzha  
alex.chiramattel@gmail.com
- Dr. Bejoy Thomas, Associate Professor  
Newman College, Thodupuzha  
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- Dr. Cincy George, Associate Professor  
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