

CONTACT

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OBJECTIVE

A highly motivated and erudite student seeking to pursue innovative research in the field of chemical and biological science in order to widen mankind's horizons of knowledge.

RESEARCH INTEREST

- Supramolecular chemistry, Luminescent materials for application in Data storage, Material chemistry

EXPERIENCE

August, 2022 - Pursuing

- **M.Sc project under prof. Mintu Halder**
IIT KHARAGPUR

With the help of nanoparticles I am studying Amyloid chemistry, Different Fluorescence probes and their photophysical study to analyse amyloid fibrils. I am also working on ionic Liquids to prevent amyloid formation.

May, 2022 - July, 2022

- **Summer Research Intern**
IISC BANGALORE

Worked on Polymer Chemistry supervision of prof. S. Ramakrishnan. I worked on synthesis work for modified polyethylene terephthalate.

May, 2021 - July, 2021

- **Summer Internship**
IISER Bhopal

Worked on synthesis and photoluminescent properties of fluorescence probes. My research was on understanding Interorganelle communication using fluorescence probes.

JUNE, 2021 - JULY, 2021

- **Internship**
IIT INDORE

Worked on fluorescence based cation recognition sensors. Here I learned about development of supramolecular sensors and their luminescent properties.

June - June, 2021

- **Online Summer Internship on NMR spectroscopy**
Osaka university, Japan

June - June, 2021

- **Material science course**
CSIR online Skill development training program

EDUCATION

2021-2023

- **Master of Science in Chemistry**
Indian Institute Of Technology Kharagpur
8.84/10

2018-2021

- **Bachelor of Science in Chemistry (Honours)**
Vivekananda Mahavidyalaya, Burdwan University
CGPA-8.89 out of 10

2018

- **Higher Secondary Education,**
West Bengal Board, Chatra High School
Grade-92%, Math(94/100), chemistry(92/100) Physics(92/100), Biology(94/100)

- **Secondary Education,**
WestBengal Board, Chatra High School
Grade-91%,physical science(100/100),Life science(98/100),Math(91/100)

ACHIEVEMENTS & AWARDS

- Got Summer Internship Offer Under Dr.Subi Jacob George on Supramolecular chemistry in JNCASR.
- Awarded with India's most prestigious 'DST INSPIRE SCHOLARSHIP' by Govt Of India, for being amongst the top 1% in 12th standard (WBCSHE Board, 2018-2023).
- Awarded with 'Merit Cum Means SCHOLARSHIP' for being amongst the top 1% in 10th standard (WBBSE Board, 2016-2018).
- Secondary and Higher Secondary examination School Topper
- Secured rank-63 in IIT-JAM(Cheistry)2022 and rank-186 in IIT JAM 2021 among 150000 students.
- Selected for Integrated PhD course in IISER BHOPAL and IISER BEHARAMPUR.
- Cleared Gate and Net exam in first semester of M.Sc.
- Got interview offer from IISC BANGALORE for Integrated phd.

LABORATORY SKILL

- **Spectroscopy:** NMR, UV-Visible, FTIR, Fluorescence, SEM, TEM, AFM, Colorimetric determination.
Chromatography: Column Chromatography, Thin Layer Chromatography (TLC), Ion Exchange,HPLC,GPC.
Separation Technique: Chromatography (column, ion-exchange, paper, TLC, HPLC) solvent extraction, fractional distillation, gravimetric separation, rotary evaporation
Titrimetric Methods: Redox titration, complexometric titration, conductometric & potentiometric titration, Iodometry & Iodimetric titration
Others: Organic synthesis, purification of compounds, crystallization, DLS, qualitative inorganic & organic analysis

COMPUTING SKILLS

- **Software:**
Microsoft office, SciFinder, Chem Draw, MS Nova

OTHER SKILLS

- Independent research work skill, Group work skill, Analytical skill. Expert user of Chemdraw.

RELEVANT COURSES UNDERTAKEN

- **Organic Chemistry:**
Bioorganic Chemistry, Carbohydrate Chemistry, Advance Organic synthesis,Pericyclic and photochemistry,Methods in Organic chemistry, Thermal and Photochemical reactions,
Inorganic Chemistry:
Metallo polymers and their smart applications, Metal complexes in catalysis,Bio-inorganic Chemistry, Organometallic Chemistry, Modern Methods of Analysis, Chemistry of Main Group and Transition Elements, Group Theory, Structure and Properties of Materials.
Physical Chemistry:

Collides and drug delivery, Biophysical chemistry and different techniques to study protein folding, solid state Chemistry, Molecular Spectroscopy, Rate processes, Basic and Advanced Quantum Chemistry, Thermodynamics and Statistical Mechanics. Kinetics.

Computer: Computational Chemistry

Practical Courses: Separation Techniques, Physical Chemistry Lab(spectroscopic techniques, data analysis), Organic Chemistry(synthesis of molecules)

Lab, Inorganic Chemistry Lab(Metallo gels, metal organic framework)

WORKSHOPS AND WEBINARS ATTENDED

- 1. National Webinar on "New Aged Conjugated polymer Nanocomposite Based Coatings and their Applications" organized by Department of Chemistry Of SVR NSS College.
- 2. Webinar series on "RSC-IISER Desktop Seminar with OBC" organized by Royal Society of Chemistry.
- 3. A Symposium on "GN Ramachandran Lecture Series on Bioinformatics and Computational Biology" organized by DBT supported Bioinformatics Centre, department of Biotechnology, IIT Kharagpur
- 4. International Conference organised by IIT Roorkee.

CO-CURRICULARS

- 1. SUBJECT EXPERT | CHEMISTRY | CHEGG
- 2. Participated in several Dancing and Drawing Competitions

LANGUAGES

- English, Hindi, Bengali

REFERENCE

- Dr. Mintu Halder - "IIT KHARAGPUR "**
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