Sutirtha Panda

Student

M.Sc. Chemistry

"The important fact in science is not so much to obtain new facts as to discover new ways of thinking about them"

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Educational Background:

Degree/Examination	Year	Institution	University/Board	Percentage/CPI
Master of science (Chemistry)	2018-2020	IIT Guwahati	IIT Guwahati	**8.92**
Bachelor of science (Chemistry)	2018	Midnapore college(Autonomous)	Vidyasagar University	**77.37**
Intermediate/+2	2015	Mahishadal Raj High School	WBCHSE	**90.40**
Matriculation	2013	Mahishadal Gayeswari girls High School	WBBSE	**91.20**

Scholastic Achievement:

1. Secured **ALL INDIA RANK – 206** in the IIT- joint admission test for M.Sc (JAM), CHEMISTRY.	March 2018
2. Recipient of the **INSPIRE** scholarship, given to the top 1% students for their performance in science category by the GOVERNMENT OF INDIA	2015-20
3. **Gate** Qualified	2020

Research Interest:

1. Biochemistry
2. Organic Chemistry
3. Medicinal Chemistry

Topics of Interest:

a. Aggregation of proteins

b. Protein-ligand interactions

c. Targeted drug delivery

d. Development of new synthetic protocols for medicinally important peptides or peptidomimetics

Research Experience:

M.Sc. project : ***Development of cyclic peptides as a therapeutic tools against Alzheimer's Disease*** Dec, 2019-july,2020

Project supervisor: Dr. Bhubaneswar Mandal, Professor, Department of Chemistry. ***Indian Institute of Technology Guwahati***

Summer Project: ***Establishment of an Alzheimer's disease cell model using human neuroblastoma cell line*** May-July,2019

Project supervisor: Dr. Debashis Mukhopadhyay, Professor, Department of Biophysics and structural genomics, ***Saha Institute of Nuclear Physics***, Kolkata – 700064

B.Sc. Project-1

Performed [4+2] cycloaddition at room temperature, Benzil-Benzilic acid rearrangement, Bromination of Acetanilide by Green techniques. Guide: Dr. Tridib Tripathy, ***Midnapore College (Autonomous).***

B.Sc. Project-2

Performed the following organic reactions and recrystallized the product and did the characterization-

- Nitration of the aromatic compounds;
- Condensation reactions;
- Hydrolysis of esters;
- Benzoylation of phenols;
- Bromination of anilides.

Guide: Dr. Tridib Tripathy, ***Midnapore College (autonomous).***

Laboratory Skills:

- ORGANIC CHEMISTRY: Functional group detection, and interconversion, organic synthesis, Recrystallization of products, Characterization by IR, NMR(1D,2D,^{1}H,^{13}C), Mass spectroscopy.
- INORGANIC CHEMISTRY: Group separation technique for identifying cations and anions in a given salt mixture, quantitative analysis of metals in a given solution of salt.
- PHYSICAL CHEMISTRY: Titrimetric methods–redox, iodometry, iodimetry, complexometry, potentiometry, pH metry, Spectroscopic methods like UV-Vis, Colorimetry, IR.
- SEPARATION AND PURIFICATION TECHNIQUES: Fractional distillation, Solvent extraction, Simple distillation, use of Rotavapor.
- CHROMATOGRAPHY: Ion-exchange, column, paper, thin layer chromatography.
- BIOCHEMISTRY: Cell culture, Western blot, RNA isolation, Agarose gel electrophoresis, PCR

Technical Skills:

- Programming Language – C language, Fortran-77
- Data Base Handling - MS WORD, MS POWERPOINT, MS EXCEL
- Software – Chemdraw, Gaussian

Seminars and Workshops:

- Achieved 2nd position in the annual seminar of the department of chemistry of Midnapore college(autonomous) on "Role of Hydrogen bonding in Chemistry" (2016)
- Attended the seminar by prof Richard Niel Zare, Stanford university at Indian institute of technology Kharagpur. (2017)
- Attended National Symposium on *"Chemistry and Environment",* organized by Department of Chemistry, Raja N. L. Khan womens college, Midnapore. (2016)
- Attended the seminar by Prof. Arindam Banerjee, IACS-Kolkata, on *"Self assembling peptides : From designer molecules to soft functional materials in health care, nano hybrids and waste water management*" at IIT Guwahati. (2019)
- Participated in the "MOLECULAR BIOLOGY AND BIOCHEMISTRY TECHNIQUES" training with EDUFABRICA in association with Springfest IIT Kharagpur. (25th August- 3rd September, 2020)
- Participated in A One Day International webinar on "Recent trends in Chemistry in the fields of medicine and Industry" organized by Presidency University, Kolkata, India on 5th September. (2020)

Languages:

English, Bengali, Hindi