



Placement Brochure

2023-24



Contact Us



Phone:
+91-1905267006



Email:
placement@iitmandi.ac.in

M.Sc. Chemistry

School of Chemical Sciences

About the Program

The M.Sc. Chemistry program is the flagship program offered by the School of Chemical Sciences at the Indian Institute of Technology, Mandi. It was started in August 2014 and since then has been one of the most successful postgraduate programs. The program aims to provide students with a fundamental understanding of Chemistry and multi-disciplinary knowledge so they are prepared to take up a research career either in academia or in industries. The curriculum is so designed that it includes core courses as well as elective courses in allied areas to make students competent to do multidisciplinary research. The syllabus of the laboratory courses offers students hands-on training on the methods of synthesis, separation and application of most modern analytical tools. The unique feature of the curriculum is its Design Practicum course from the very first semester which helps students to get an understanding of state-of-the-art research. The M.Sc. program may lead to specialisation in conventional(organic, inorganic or physical chemistry) or relatively unconventional branches (nanoscience, theoretical chemistry or materials chemistry) of Chemistry. During the curriculum students are made to attend mechanical and electronic workshops to help them understand the working principle of different instruments as well as learn about fabrication of small instruments. The salient features of the program are given below :

- Broad curriculum offering several free elective specialisation letters and outside discipline electives without compromising the core chemistry
- State-of-the-art laboratory courses aligned to trendy research areas
- Research-oriented curriculum to enable learning by doing Unique courses on design and innovation practical from 1st year itself
- Practical learning on methods of synthesis separation and purification

Academic Curriculum & Courses

Inorganic Chemistry

- Transition Elements & Coordination Compounds
- Organometallic Chemistry
- Bio-Inorganic Chemistry
- s and p-Block Elements
- Inorganic Spectroscopy

Physical & Computational Chemistry

- Advanced Quantum Mechanics
- Group Theory and Molecular Spectroscopy
- Computational Chemistry
- Thermodynamics & Electrochemistry
- Reaction Dynamics, Kinetics & Catalysis
- Mathematics for Chemists

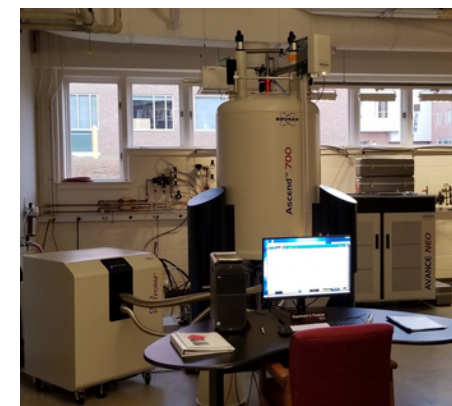
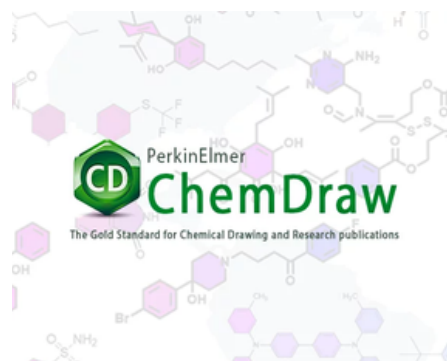
Organic Chemistry

- Reaction Mechanisms and Stereochemistry
- Pericyclic Reactions and Photochemistry
- Heterocyclic Compounds
- Natural Products
- Organic Spectroscopy

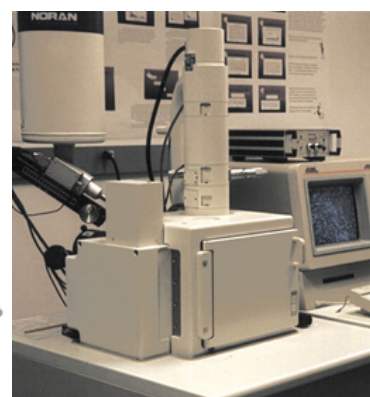
Elective Courses

- Nano Manufacturing
- Nano Biotechnology
- Biological Modelling
- Analytical Bio-techniques
- Polymer Chemistry
- Fluorescence Spectroscopy
- chemical crystallography
- Basic Data Science
- Advanced Inorganic Spectroscopy

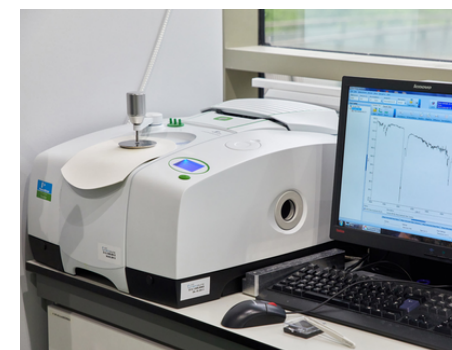
Students' Skills



NMR SPECTROSCOPY



SEM



FTIR SPECTROSCOPY

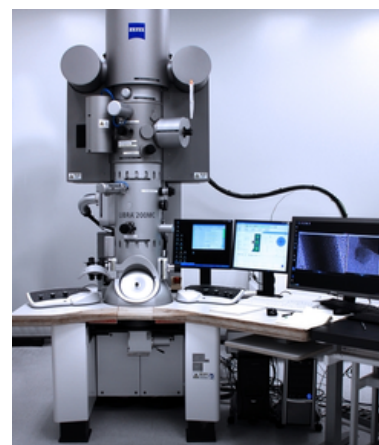
Wolfram *Mathematica*[®]



Gaussian, Inc.



HIGH PERFORMANCE COMPUTING

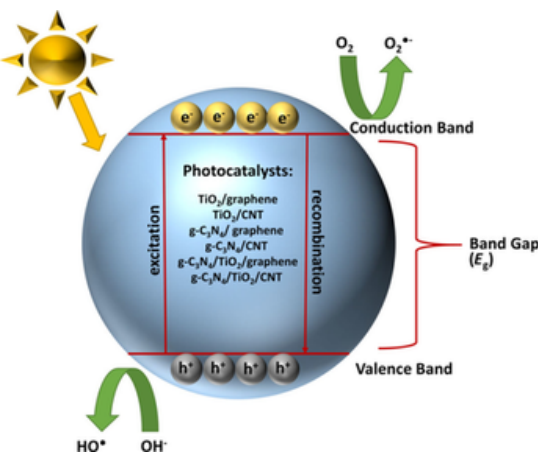


TEM

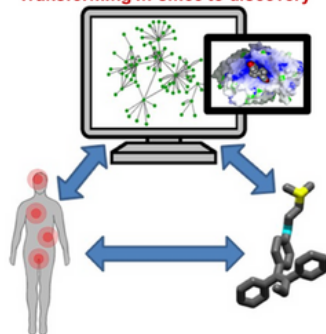


UV SPECTROSCOPY

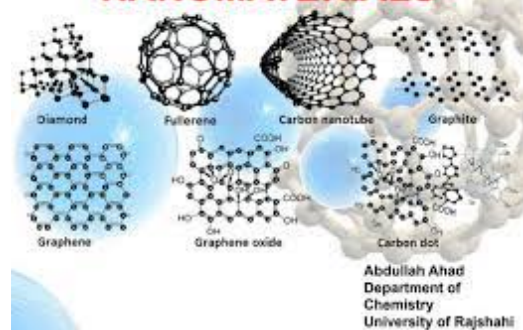
Students' Projects



Transforming in-silico to discovery



NANOMATERIALS



Photocatalysis

Computational Chemistry

Synthesis and Application of Nanomaterial

Super Resolution Fluorescence Microscopy

Organic Synthesis and it's Applications

Food Packaging

Energy Conversion

Electrochemical Synthesis

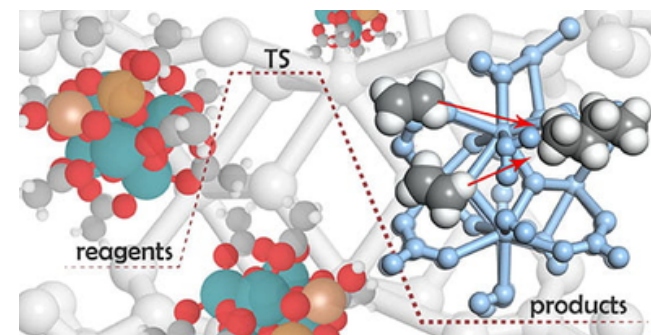
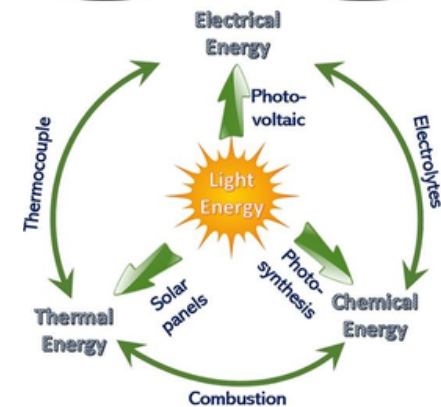
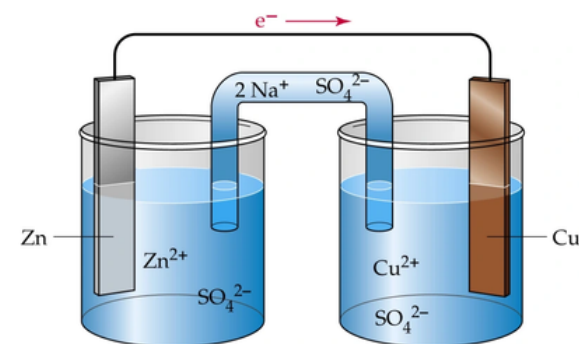
Metal-Based Catalysis

Bio Hydrogen Production

Biomass Conversion

Flow Chemistry

Drug Delivery



Contact Us: Career & Placement Cell, IIT Mandi

Faculty Advisor
MSc. Chemistry

Dr. Moupriya Das

Assistant Professor School of Chemical Sciences
IIT Mandi, Himachal Pradesh, 175075
Email: moupriya@iitmandi.ac.in
Phone: +91-1905-26-7277

Faculty Advisor
Career & Placement Cell

Dr. Tushar Jain

Associate Professor
School of Computing and Electrical Engineering
IIT Mandi, Himachal Pradesh, 175075
Email: advisorcnp@iitmandi.ac.in
Phone : +91-1905-267-920

Career & Placement Executive

Nimisha N B

Career and Placement cell,
IIT Mandi, Himachal Pradesh, 175075
Email: nimisha@iitmandi.ac.in
Phone: +91-1905267-006
+91-7807625022

Student Representatives

Nakul Khodiyar

Email: v22073@students.iitmandi.ac.in
Phone: 7203904301

Vanshika Nandwani

EMail: v22055@students.iitmandi.ac.in
Phone: 7290017872
MSc. Chemistry School of Chemical Sciences
IIT Mandi, Himachal Pradesh, 175075