

# IISER Kolkata Central Instrument Facility (iCIF)



- [Outreach programs](#)
- [Instruments and Booking details](#)

The iCIF supports the research needs of both internal and external users—including academic institutions and industry—by providing access to a wide range of advanced scientific instruments. This facility reflects our strong commitment to maintaining and elevating research standards to meet global benchmarks.

A variety of state-of-the-art instruments are located at the IISER Kolkata Mohanpur campus, with several more already operational and additional equipment scheduled for installation. We are proud to offer these services through a fully online booking system designed to minimize human intervention and ensure smooth, transparent access. As we continue to grow and refine our services, we welcome your feedback and suggestions. Please feel free to reach out to us at [cif@iiserkol.ac.in](mailto:cif@iiserkol.ac.in).

## **iCIF Administration**

Dean (Research and Development)



Coordinator iCIF and HoDs



Manager iCIF



Operators of instruments

Contact: [cif@iiserkol.ac.in](mailto:cif@iiserkol.ac.in)

Phone no: +91-033-61360000 (ext: 2208)

## Outreach Programs

Outreach programs establish mutually beneficial partnerships between educational institutions and sponsoring organizations—including corporations, community groups, and government agencies. These collaborations bring valuable resources, specialized knowledge, and real-world perspectives into the learning environment, while also helping sponsors advance their goals and support the broader community. Such programs enrich learning by offering varied educational pathways, fostering civic engagement, encouraging positive behaviour change, and delivering targeted instruction on important topics. They enable students, professionals, and educators to link classroom concepts with real-world issues, build essential life skills, and contribute meaningfully to community development. For sponsoring entities, outreach programs create opportunities to address local challenges, promote key initiatives, strengthen brand presence, and share mission-focused information. They also provide a powerful platform for organizations to engage young audiences in ways that are both meaningful and long-lasting.

Effective outreach initiatives rely on well-aligned educational content, engaging and memorable activities, developmentally appropriate design, and clear methods for measuring impact. When thoughtfully executed, these programs generate enduring positive outcomes—supporting community growth, empowering future leaders, and fostering long-term partnerships between educational institutions and their sponsors.

### iCIF played important roles in organizing following events



**ORGANIZED BY**



**FOR MORE DETAILS & REGISTRATION SCAN:**





**FRONTIERS IN DISEASE BIOLOGY**  
**BASED ON WORKSHOP ON PRECLINICAL ANIMAL MOUSE MODELS**  
**TRANSLATING BASIC SCIENCE TO CLINIC**

THE CONFERENCE WILL COVER THE FOLLOWING TOPICS:
 

- HOW TO DESIGN ANIMAL TEST SYSTEMS FOR DRUGS
- DRUGS FOR PREVENTION, TREATMENT, AND CURE
- TRANSLATIONAL RESEARCH: FROM BASIC SCIENCE TO CLINICAL APPLICATIONS
- CLINICAL TRIALS: DESIGN, CONDUCT, AND ANALYSIS

**HANDS-ON WORKSHOP ON:**

- ANIMAL HANDLING
- FLOW CYTOMETRY
- HISTOPATHOLOGY
- MICROIMAGING

**POSTER SESSIONS WITH EXCITING PRIZES**

**Venue:**  
**MEGHNA SAHA AUDITORIUM**



**WHO CAN ATTEND?**  
 ACADEMICIAN, FACULTY, SCIENCE RESEARCHER, INDUSTRY & BUSINESS STUDENTS, TEACHER, RESEARCH SCHOLAR, CLINICIAN

**KEY BENEFITS & IMPACT**

- DEDICATED LECTURES BY INTERNATIONAL AND NATIONAL
- ENHANCED SCIENTIFIC EXCHANGE & NETWORKING OPPORTUNITIES
- HANDS-ON TRAINING ON DRUGS, RESEARCH, AND CLINICAL APPLICATIONS
- EXPOSURE TO NATIONAL, INTERNATIONAL, AND CLINICAL RESEARCH
- POSTER PRESENTATION OPPORTUNITIES
- CLINICAL PARTNERSHIPS

**SAW@DISEASEX.IGC.IN**

**CONTACT NO. +91 33 66349900 EXT. 1202**





## Hands-on workshop on Sanger Sequencing and Fragment Analysis

### Program Schedule

#### 14-15<sup>th</sup> July 2025

14 <sup>th</sup> July	Events	Venue
10:00-10:30	Registration	Near Aisma Chatterjee Auditorium
10:30-11:00	Inauguration	Aisma Chatterjee Auditorium
11:00-11:15	Tes Break	Near Aisma Chatterjee Auditorium
11:15-12:15	PCR cleanup and Sequencing Reaction setup (Mr. Biswajoy Pal & Dr. Sanjib Dey, Thermo Fisher Scientific)	N-206/W-224
12:15-12:45	Sanger Sequencing and its Applications in Research and diagnostics (Dr. Sanjib Dey, Thermo Fisher Scientific)	W229, TRC
12:45-1:15	Sequencing Workflow and Chemistry (Mr. Biswajoy Pal, Thermo Fisher Scientific)	W229, TRC
1:15-2:15	Lunch	Near Aisma Chatterjee Auditorium

## Instruments and Booking details

1. Lists of instruments under **DBS**, **DCS**, **DES**.
2. **Click** on the **name** of the given instrument, will lead you to the instrument details.
3. **Internal users**: Book instrument by following Department Booking Policy.
4. **External users**: For instrument booking and payment, contact respective operators.
5. *Instrument details* and *charges* for every instrument are available in the following sections. Charges are subject to revision from time to time and updates are available with the respective operators.
6. Please find the bank details and payment form.

# Department of Biological Sciences

- Please Note: a) **Click** on the **name** of the given instrument, will lead you to instrument details.  
b) **Internal users**: Book instrument by following Department Booking Policy.  
c) **External users**: For instrument booking and payment contact respective operators.  
d) *Instrument details and charges* for every instrument are available in the following sections.

Sl. No.	Instrument Name	Machine make	Name of Faculty-in-charge	Operator's Name and mail id
1	<a href="#">Confocal microscope</a>	ECLIPSe Ti2-E (Nikon)	Prof. Bidisha Sinha	Ritabrata Ghosh ritabrata.ghosh@iiserkol.ac.in
2	<a href="#">Confocal microscope</a>	CLSM 710 (Carl Zeiss)	Prof. Bidisha Sinha	Ritabrata Ghosh ritabrata.ghosh@iiserkol.ac.in
3	<a href="#">Inverted microscope with Apotome</a>	Axiobserver (Carl Zeiss)	Prof. Bidisha Sinha	Ritabrata Ghosh ritabrata.ghosh@iiserkol.ac.in
4	<a href="#">Epi-fluorescence microscope</a>	IX83 with epi-fluorescence attachment (Olympus)	Prof. Bidisha Sinha	Ritabrata Ghosh ritabrata.ghosh@iiserkol.ac.in
5	<a href="#">Spinning Disk with epi-fluorescence microscope (DBT Builder Facility)</a>	IX83 & IX73 With Spinning Disk attachment (Olympus)	Prof. Bidisha Sinha	Shreya Ghosh shreya08@iiserkol.ac.in
6	<a href="#">STED Microscope</a>	IX83 With STED Microscope attachment (Olympus)	Prof. Bidisha Sinha	Shreya Ghosh shreya08@iiserkol.ac.in
7	<a href="#">Flow cytometer</a>	FACS LSRFortessa (BECTON DICKINSON)	Prof. Malancha Ta	Tamal Ghosh tamal.ghosh@iiserkol.ac.in
8	<a href="#">Flow cytometer</a>	FACS Aria III (BECTON DICKINSON)	Prof. Malancha Ta	Tamal Ghosh tamal.ghosh@iiserkol.ac.in

# Department of Biological Sciences

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b) **Internal users**: Book instrument by following Department Booking Policy.  
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Sl. No	Instrument Name	Machine make	Name of Faculty-in-charge	Operator's Name and mail id
9	<a href="#">Automated Capillary DNA Sequencer</a>	SEQSTUDIO 8 FLEX (Applied Biosystems)	Prof Amirul Mallick	Debabrata Sutradhar Dr. G. Lekha sequencing@iiserkol.ac.in
10	<a href="#">Metabolic Flux Analyzer System</a>	Seahorse XFe24 Analyzer (MEDISPEC)	Dr. Sumit Sen Santara	Soumik Sao analyticalfacility.dbs@iiserkol.ac.in
11	<a href="#">HPLC System (DLS-MALS)</a>	DAWN 8 (WATERS)	Prof. Supratim Datta	Soumik Sao analyticalfacility.dbs@iiserkol.ac.in
12	<a href="#">Isothermal titration calorimeter</a>	PEAQ-ITC (Malvern)	Dr. Babu Sudhamalla	Tamal Ghosh tamal.ghosh@iiserkol.ac.in
13	<a href="#">Real-time biomolecular interaction analysis</a>	Biacore T200 (GE)	Dr. Rahul Das	Soumik Sao analyticalfacility.dbs@iiserkol.ac.in
14	<a href="#">Multimode plate reader</a>	Cytation 5 Cell Imaging Multi-Mode Reader (CYT5MV) (Agilent)	Dr. Rahul Das	Soumik Sao analyticalfacility.dbs@iiserkol.ac.in
15	<a href="#">CD Spectrometer</a>	J-1500-450 (Jasco)	Dr. Babu Sudhamalla	Soumik Sao analyticalfacility.dbs@iiserkol.ac.in
16	<a href="#">Confocal microscope</a>	DMi8 (Leica)	Dr. Arnab Gupta	

# Department of Chemical Sciences

- Please Note: a) **Click** on the **name** of the given instrument, will lead you to instrument details.  
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 c) **External users**: For instrument booking and payment contact respective operators.  
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Sl. No.	Instrument Name	Machine make	Name of Faculty-in-charge	Operator's Name and mail id
1	<a href="#">Fluorescence Lifetime Imaging Microscope (FLIM)</a>	Becker & Hickl	Prof. Pradipta Purkayastha	Trained students
2	<a href="#">TGA/DSC</a>	Perkin Elmer	Dr. Ratheesh K Vijayaraghavan	Uday Bhanu Sen
3	<a href="#">TEM</a>	JEOL TEM-2100-Plus	Prof. Venkataramanan M and Dr. Dibyendu Das	Tuhin K Adak
4	<a href="#">TEM</a>	JEOL-TEM 2100F	Prof. Venkataramanan Mahalingam and Dr. Dibyendu Das	Tuhin K Adak
5	<a href="#">Bruker Avance III 500 MHz NMR Spectrometer</a>	Bruker	Prof. Balaram Mukhopadhyay	Mr. Arnab Chattopadhyay & Parves Sajjad Mondal
6	<a href="#">Bruker Avance NEO 500 MHz NMR Spectrometer</a>	Bruker	Prof. Balaram Mukhopadhyay	Mr. Arnab Chattopadhyay & Parves Sajjad Mondal
7	<a href="#">JNMECZL 400S</a> Jeol 400 MH2 NMR Spectrometer	Jeol	Prof. B. Mukhopadhyay	Mr. Arnab Chattopadhyay & Parves Sajjad Mondal
8	<a href="#">Bruker Avance NEO 400 MHz NMR Spectrometer</a>	Bruker	Prof. Balaram Mukhopadhyay	Mr. Arnab Chattopadhyay & Parves Sajjad Mondal

# Department of Chemical Sciences

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9	<a href="#">EPR Instrument</a> (X-Band and Q-Band) Q Band not operative as Liquid Helium is required)	Bruker	Dr. Parna Gupta	Uday Bhanu Sen
10	<a href="#">FLS 1000</a>	Edinburgh Instruments	Dr. Ratheesh K Vijayaraghavan	Tania Roy
11	<a href="#">Xta LAb Synergy-I Single Crystal X-Ray Diffractometer</a>	Rigaku	Prof. Rahul Banerjee	Piyali Bose
12	<a href="#">Single Crystal X-Ray Diffractometer</a> <a href="#">D8 Quest</a>	Bruker	Prof. Rahul Banerjee	Piyali Bose
13	<a href="#">Miniflex-600 Benchtop Powder X-Ray Diffractometer</a>	Rigaku	Prof. Rahul Banerjee	Dr. K Srikanth
14	<a href="#">Rigaku SmartLab SE Powder X-Ray Diffractometer</a>	Rigaku	Prof. Rahul Banerjee	Piyali Bose
15	<a href="#">FESEM SUPRA 55 VP</a>	CARL ZEISS	Prof. Rahul Banerjee	Kashinath Sahu
16	<a href="#">FESEM JSM-IT800</a>	JEOL	Prof. Rahul Banerjee	Kashinath Sahu
17	<a href="#">2400 Series II ELEMENTAL ANALYZER</a>	Perkin Elmer	Dr. Parna Gupta	Tania Roy
18	<a href="#">High Resolution Atomic Force Microscope (AFM) Cypher ES -HV Environmental</a>	Oxford Instruments Asylum Research Inc.	Prof. Rahul Banerjee Dr. Dibyendu Das	Soumen Mondal



# Department of Chemical Sciences

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Sl. No.	Instrument Name	Machine make	Name of Faculty-in-charge	Operator's Name and mail id
19	<a href="#">Table Top Atomic Force Microscope (AFM) MFP 3D Origin</a>	Oxford Instruments Asylum Research Inc.	Prof. Rahul Banerjee	Soumen Mondal
20	<a href="#">X- Ray Photoelectron Spectroscopy</a>	Physical Electronics ULVAC- PHI	Prof. Sayan Bhattacharya Prof. Sayam Sen Gupta	Mrinal Kanti Garai
21	<a href="#">Rheometer</a>	Anton-Paar	Dr. Dibyendu Das	Tania Roy/ Parves Sajjad Mondal
22	<a href="#">HRMS</a>	WATERS	Prof. Biplab Maji	Taniya Roy
23	<a href="#">Atomic Force Microscopy (AFM)</a>	Oxford Instruments MFP-3D Infinity	Dr. Dibyendu Das	Soumen Mondal and trained student operators
24	<a href="#">Peptide Synthesizer</a>	CEM, Liberty Blue	Dr. Dibyendu Das	Parves Sajjad Mondal

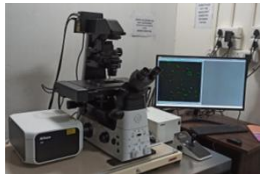


# Department of Earth Sciences

- Please Note: a) **Click** on the **name** of the given instrument, will lead you to instrument details.  
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Sl. No.	Instrument Name	Machine make	Name of Faculty-in-charge	Operator's Name
1	<a href="#">Two Stable Isotope Ratio Mass spectrometer and its peripherals (two Gas Bench, EA, GC-TC Isolink, Kiel Carbonate)</a>	Thermo Fisher	Prasanta Sanyal	Mahesh Ghosh
2	<a href="#">LC MS MS</a>	Thermo	Prasanta Sanyal	Mahesh Ghosh
3	<a href="#">Quadrupole Inductively Coupled Plasma Spectrometer (ICP-MS) Model: iCAPRQplus</a>	Thermo Fisher Scientific	Sanjay Kumar Mandal	Santosh Ch Das
4	<a href="#">ICP OES</a>	iCAP 7400 Plus Series	Gopala K Darbha	Jay Karmakar (Ph.D. student)
5	<a href="#">WDXRF(S8 TIGER)</a>	Bruker India Scientific Pvt Ltd(Axs Division)	Manoj K Jaiswal	Biswajit Giri
6	<a href="#">Xrfuse2 Electric</a>	XRF Scientific Ltd	Manoj K Jaiswal	Biswajit Giri

## Confocal Microscopy (Ti2 Eclipse)


<b>Made</b>	<b>Nikon, Japan</b>
<b>Model:</b>	Ti2 Eclipse with AXR module (CONFOCAL)
<b>Specification:</b>	<p>INVERTED MICROSCOPE - Ti2 Eclipse</p> <p>Fluorescence lamp unit – LED</p> <p>Motorised stage unit</p> <p>Incubator setup for live imaging with CO2 and temperature control unit and humidifier chamber</p> <p>Objectives – 4X,10X,20X,40X, 60X(oil), 100X(oil)</p> <p>Laser lines – 405nm, 488 nm,560 nm, 640 nm</p> <p>AXR Dual Scanner (Galvano Scanner and Resonant scanner)</p> <p>Four channel detector unit - PMT+GaAsP</p> <p>Software – NIS Elements -ER</p>
	
<b>Note:</b>	This instrument is supported with UPS.

### Necessary information

<p>Operator's Name: Ritabrata Ghosh</p> <p>Operator's Mail id: ritabrata.ghosh@iiserkol.ac.in</p> <p>LAN no: +91 33 61360000 Ext no: 1460</p>	<p><u>Location of the instrument</u></p> <p>Room no: E-241</p> <p>Building : Research complex</p>
<p>Faculty in Charge: Prof. Bidisha Sinha</p> <p>Mail id of the Faculty in Charge: bidisha.sinha@iiserkol.ac.in</p>	

<b>Rate Chart and Booking policy [Hourly basis]</b>	<b>Special Instructions</b>
<p>Internal: Department policy</p> <p>External (Academia): 1000 +18% GST</p> <p>External (Industry): 2000 +18% GST</p> <p><u>Internal booking</u>: Department policy</p> <p><u>External booking</u>: Contact Operator(s) by mail.</p>	<ol style="list-style-type: none"> <li>Bookings are done based on experimental type and sample number.</li> <li>User should bring prepared and mounted samples. IF screening for staining standardization for effective illumination is recommended.</li> </ol>

## Confocal Microscopy (CLSM 710)

Made	Carl Zeiss, Germany
Model:	CLSM 710 (CONFOCAL)
Specification:	 <p>           INVERTED MICROSCOPE - Axio observer z.2            Camera – Axiocam HRM            Fluorescence unit – Metal Halide Xcite model            Spectral PMT detector            Motorised stage unit            Incubator setup for live imaging with CO2 and temperature control unit and humidifier chamber            Objectives – 10X,20X,40X (oil), 63X(oil), 100X(oil)            Laser lines – 405nm,458 nm, 488 nm, 514 nm, 561 nm, 633 nm            Spectral PMT array detector            Software - Zen         </p>
Note:	This instrument is supported with UPS.

### Necessary information

Operator's Name: Ritabrata Ghosh Operator's Mail id: ritabrata.ghosh@iiserkol.ac.in LAN no: +91 33 61360000 Ext no: 1460	<u>Location of the instrument</u> Room no: E-241 Building : Research complex
Faculty in Charge: Prof. Bidisha Sinha Mail id of the Faculty in Charge: bidisha.sinha@iiserkol.ac.in	

Rate Chart and Booking policy [Hourly basis]	Special Instructions
Internal: Department policy <i>External (Academia): 1000 +18% GST</i> <i>External (Industry): 2000 +18% GST</i> <u>Internal booking:</u> Department policy <u>External booking:</u> Contact Operator(s) by mail	<ol style="list-style-type: none"> <li>Bookings are done based on experimental type and sample number.</li> <li>User should bring prepared and mounted samples. IF screening of staining standardization for effective illumination is recommended.</li> </ol>

## Inverted Microscope with Apotome


Made	Carl Zeiss, Germany
Model:	Structured Illumination Microscopy (Apotome)
Specification:	 <p>           INVERTED MICROSCOPE - Axio observer z.2            Camera – AxioCam MRM            Inverted microscope            Objectives -10X, 20X, 40X , 63X(oil), 100X (oil)            Motorised stage            Metal halide lamp- HXP model            Apotome module unit- Apotome 2            Software – Zen Blue         </p>
Note:	This instrument is supported with UPS.

### Necessary information

Operator's Name: Ritabrata Ghosh Operator's Mail id: ritabrata.ghosh@iiserkol.ac.in LAN no: +91 33 61360000 Ext no: 1460	<u>Location of the instrument</u> Room no: E-241 Building : Research complex
Faculty in Charge: Prof. Bidisha Sinha Mail id of the Faculty in Charge: bidisha.sinha@iiserkol.ac.in	

Rate Chart and Booking policy [Hourly basis]	Special Instructions
Internal: Department policy <i>External (Academia): 500 +18% GST</i> <i>External (Industry): 1000 +18% GST</i> <u>Internal booking:</u> Department policy <u>External booking:</u> Contact Operator(s) by mail	<ol style="list-style-type: none"> <li>Bookings are done based on experimental type and sample number.</li> <li>User should bring prepared and mounted samples. IF screening for staining standardization for effective illumination is recommended.</li> </ol>

## Epifluorescence Microscope


<b>Made</b>	<b>Olympus, Japan</b>
<b>Model:</b>	IX83 with motorized stage unit (Widefield fluorescence)
<b>Specification:</b>	INVERTED MICROSCOPE –IX83 SCIENTIFIC CMOS CAMERA-Monochrome- Orca 2 flash (Hamamatsu) MOTORISED STAGE Objectives – 4X, 10X, 20X, 40X,60X FLUORESCENCENT LIGHT SOURCE – LED (COOL LED system) Software – Cells Sens Professional For BRIGHTFIELD, DIC IMAGING and WIDEFIELD FLUORESCENCE MICROSCOPY
	
<b>Note:</b>	This instrument is supported with UPS.

### Necessary information

Operator's Name: Ritabrata Ghosh Operator's Mail id: ritabrata.ghosh@iiserkol.ac.in LAN no: +91 33 61360000 Ext no: 1460	<u>Location of the instrument</u> Room no: E-241 Building : Research complex
Faculty in Charge: Prof. Bidisha Sinha Mail id of the Faculty in Charge: bidisha.sinha@iiserkol.ac.in	

<b>Rate Chart and Booking policy [Hourly basis]</b>	<b>Special Instructions</b>
Internal: Department policy <i>External (Academia):</i> 500 +18% GST <i>External (Industry):</i> 1000 +18% GST <u>Internal booking:</u> Department policy <u>External booking:</u> Contact Operator(s) by mail	<ol style="list-style-type: none"> <li>Bookings are done based on experimental type and sample number.</li> <li>User should bring prepared and mounted samples.</li> </ol>

## Spinning Disc Confocal Microscope

<b>Made</b>	<b>JAPAN</b>
<b>Model:</b>	Yokogawa CSU-W1 SoRA
<b>Specification:</b>  	<p>The yokogawa CSU-W1 SoRA is a camera based (ORCA-Fusion C14440) spinning disk confocal microscope designed for high speed imaging . It is equipped with three fixed excitation laser at wavelength of 405nm, 488 nm, 561 nm. The system supports a variety of imaging modalities,including multichannel acquisition, multiposition imaging, z-stack imaging and time-lapse imaging for dynamic live-cell studies. The system features a fully motorized stage that enables seamless stitching of samples. Its spinning disk technology ensures rapid image acquisitions with minimal photobleaching and phototoxicity, making it ideal for both fixed and live cell imaging experiments.</p>
<b>Note:</b>	This system includes TOKAI HIT Stage top incubator for Co2 and temperature control

### Necessary information

<b>Operator's Name:</b> Shreya Ghosh <b>Operator's Mail id:</b> shreya08@iiserkol.ac.in <b>LAN no:</b> +91 33 61360000 <b>Ext no:</b> 2181	<u><b>Location of the instrument</b></u> Room no: N-214 Building : Teaching and Research complex
<b>Faculty in Charge:</b> Prof. Bidisha Sinha <b>Mail id of the Faculty in Charge:</b> bidisha.sinha@iiserkol.ac.in	

<b>Rate Chart and Booking policy [Three hours]</b>	<b>Special Instructions</b>
<b>Internal:</b> Department policy <b>External (Academia):</b> 1200 +18% GST <b>External (Industry):</b> 2100+18% GST <u><b>Internal booking:</b></u> Department policy <u><b>External booking:</b></u> Contact Operator(s) by mail	1. The imaging requires temperature control, please inform one day before the imaging.

# STED MICROSCOPE


<b>Made</b>	
<b>Model:</b>	Abberior Facility Line
<b>Specification:</b>	<p>The Abberior STED Microscope is a cutting -edge super-resolution imaging system designed to support a wide range of advanced imaging application in research . The Facility line STED microscope from Abberior Instruments has four excitation laser (405,488,561,640 nm) as well as one pulsed STED laser (775 nm) complements two excitation lasers (561 ,640 nm).It is capable of performing multi-channel imaging (simultaneously two channel), Z-stack acquisition,time-lapse imaging, 3D -STED imaging .The system incorporates Abberior's patented Adaptive illumination methods. In addition to high -resolution imaging , the microscope is equipped with FLIM capabilities. For detection sensitivity, it features two ultra-sensitive single photon counting APD detectors. .</p>
<b>Note:</b>	This system includes Okolab Stage top incubator for CO2 and temperature control

Necessary information	
Operator's Name: Shreya Ghosh Operator's Mail id: shreya08@iiserkol.ac.in LAN no: +91 33 61360000 Ext no: 2181	Location of the instrument Room no: N-214 Building Teaching and Research complex
Faculty in Charge: Prof. Bidisha Sinha Mail id of the Faculty in Charge: bidisha.sinha@iiserkol.ac.in	

Rate Chart and Booking policy [Per Three hours]
Internal: Department policy <i>External (Academia): 1200 +18% GST</i> <i>External (Industry): 2600 +18% GST</i> <u>Internal booking:</u> Department policy <u>External booking:</u> Contact Operator(s) by mail



## Flowcytometer (Analyser)

<b>Made</b>	Becton Dickinson (BD)
<b>Model:</b>	BD LSR Fortessa
<b>Specification:</b> 	<p>The BD LSRFortessa is a 3 laser (488 nm, 561 nm and 633 nm) analyzer system and at a time can detect up to 10 parameters: Forward scatter, side scatter and 8 colors.</p> <p>This flow cytometer is used to perform several applications like immunophenotyping, cell cycle analysis, ploidy determination, apoptosis, intracellular antigen measurement, study of mitochondria by JC-1 staining, cell proliferation, micro particle analysis, drug delivery etc. Data are analyzed by FACSDiva software.</p>
<b>Note:</b>	This facility is available for IISER Kolkata internal as well as of external users.

### Necessary information


Operator's Name: Tamal Ghosh  
 Operator's Mail id:  
 tamal.ghosh@iiserkol.ac.in  
 LAN no: +91 33 61360000 Ext no:1542

Location of the instrument  
 Room no: N-202  
 Building : Research complex

Faculty in Charge: Prof. Malancha Ta  
 Mail id of the Faculty in Charge: malancha.ta@iiserkol.ac.in

Rate Chart and Booking policy	Special Instructions
<p>Internal: Department policy  <i>External (Academia):</i> 150 +18% GST per tube  <i>External (Industry):</i> 250 +18% GST per tube  <u>Internal booking:</u> Department policy  <u>External booking:</u> Contact Operator(s) by mail</p>	<ol style="list-style-type: none"> <li>1. Sheath fluid and FACS tubes are not provided for internal but for external samples these are provided from flow cytometry facility.</li> <li>2. Samples should be as single cell suspension.</li> </ol>

## Flowcytometer (Cell sorter)


<b>Made</b>	Becton Dickinson (BD)
<b>Model:</b>	BD FACSAria III
<b>Specification:</b> 	<p>FACSAria III is a 5 (355 nm, 405, 488 nm, 561 nm and 633 nm) laser analyzer cum cell sorter system and at a time can detect maximum 18 parameters: Forward scatter, side scatter and 16 colors and capable of doing 2 way as well as 4 way sorting.</p> <p>This flow cytometer is used to perform several applications like immunophenotyping, cell cycle analysis, ploidy determination, apoptosis, intracellular antigen measurement, study of mitochondria by JC-1 staining, cell proliferation, micro particle analysis, drug delivery etc. Data are analyzed by FACSDiva software.</p>
<b>Note:</b>	This facility is available for IISER Kolkata internal as well as of external users.

### Necessary information

Operator's Name: Tamal Ghosh Operator's Mail id: tamal.ghosh@iiserkol.ac.in LAN no: +91 33 61360000 Ext no:1542	<u>Location of the instrument</u> Room no: N-202 Building : Research complex
Faculty in Charge: Prof. Malancha Ta Mail id of the Faculty in Charge: malancha.ta@iiserkol.ac.in	

Rate Chart and Booking policy [Per hour]	Special Instructions
Internal: Department policy <i>External (Academia):</i> 250 +18% GST per tube <i>External (Industry):</i> 350 +18% GST per tube <u>Internal booking:</u> Department policy <u>External booking:</u> Contact Operator(s) by mail	1. Sheath fluid and FACS tubes are not provided for internal but for external samples these are provided from flow cytometry facility. 2. Samples should be as single cell suspension.

# Automated Capillary DNA Sequencer

Made	
Model:	SeqStudio 8 Flex Genetic Analyzer
Specification:	<p>The Applied Biosystems SeqStudio 8 Flex Genetic Analyzer are fluorescence-based automated capillary DNA sequencer with 8 capillaries.</p> <p>SeqStudio 8 Flex Genetic Analyzer offers design improvements and technological advances to the capillary electrophoresis (CE) workflow. It delivers gold-standard Sanger sequencing and fragment analysis data quality with increased flexibility, easier operation, and cloud connectivity to enable researchers to manage their workloads and work/life balance effectively. Designed for ultimate ease-of-use, this mid-throughput system offers high quality, excellent reliability, and an optimal user experience for researchers who want to work smarter in the lab.</p>
	
Note:	NA

## Necessary information

Operator's Name: Mr. Debabrata  
Sutradhar, Dr. Soumik Sao & Dr. G. Lekha  
Facility's Mail id:  
sequencing@iiserkol.ac.in  
LAN no: +91 33 61360000 Ext no:2175


Location of the instrument  
Room no: N-206  
Building : Research Complex

Faculty in Charge: Prof. Amirul I Mallick  
Mail id of the Faculty in Charge: amallick@iiserkol.ac.in

## Rate Chart and Booking policy [per reaction]

Internal: Department policy  
*External (Academia): 500 +18% GST*  
*External (Industry): 650 +18% GST*  
Internal booking: Department policy  
External booking: Contact Operator(s) by mail

## Metabolic Flux analyser system


Made	USA
Model:	Sea Horse XFe24 Analyser
Specification:	 <p>A metabolic flux analyzer is a tool or technique, specifically metabolic flux analysis (MFA), that quantifies the rates of metabolic reactions within a cell or organism. It helps understand how metabolic pathways operate and respond to changes in the environment or genetic modifications. MFA integrates experimental data, like substrate uptake and product secretion rates, with computational models to determine intracellular fluxes.</p>
Note:	

### Necessary information

Operator's Name: Soumik Sao Operator's Mail id: analyticalfacility.dbs@iiserkol.ac.in LAN no: 2208	<u>Location of the instrument</u> Room no: W-228 Building : Teaching and Research complex
Faculty in Charge: Dr. Sumit Sen Santra Mail id of the Faculty in Charge: sumit.santara@iiserkol.ac.in	

Rate Chart and Booking policy (Per hour)	Special Instructions
Internal: Department policy <i>External (Academia):</i> NA <i>External (Industry):</i> NA <u>Internal booking:</u> Department policy <u>External booking:</u> Contact Operator(s) by mail	1. Sample should be filtered with 0.2-micron filter. 2. Only available for bio molecules in aqueous mobile phase.

## HPLC system (SEC MALS)

<b>Made</b>	DAWN 8
<b>Model:</b>	WATERS
<b>Specification:</b> 	SEC-MALS (Size Exclusion Chromatography – MultiAngle Light Scattering and DLS are techniques used in light scattering for characterizing molecules in solution. SEC-MALS, or Size Exclusion Chromatography coupled with Multi-Angle Light Scattering, is used to determine the absolute molar mass and size of molecules as they elute from a chromatography column. Dynamic Light Scattering (DLS) measures the fluctuations in scattered light to determine the hydrodynamic radius of particles in solution.
<b>Note:</b>	NA


### Necessary information

Operator's Name: Soumik Sao Operator's Mail id: analyticalfacility.dbs@iiserkol.ac.in LAN no: +91 33 61360000 Ext no: 2208	<u>Location of the instrument</u> Room no: W-228 Building : Teaching and Research complex
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Faculty in Charge: Prof. Supratim Dutta  
 Mail id of the Faculty in Charge: supratim@iiserkol.ac.in

Rate Chart and Booking policy (Per sample)	Special Instructions
Internal: Department policy <i>External (Academia):</i> 2500 +18% GST <i>External (Industry):</i> 2500 +18% GST <u>Internal booking:</u> Department policy <u>External booking:</u> Contact Operator(s) by mail	1. Sample should be filtered with 0.2 micron filter. 2. Only available for bio molecules in aqueous mobile phase.

## Isothermal Calorimeter (ITC)

<b>Made</b>	PEAQ-ITC (Malvern)
<b>Model:</b>	MICROCAL PEAQ-ITC
<b>Specification:</b> 	<p>This facility enables researchers to study characterization of protein-protein and protein-ligand, DNA-protein binding, drug heat validation and enzyme activity. One ITC experiment gives all the relevant thermodynamic properties including the binding affinity (<math>K_D</math>), reaction stoichiometry (<math>n</math>), changes in enthalpy (<math>\Delta H</math>), entropy (<math>\Delta S</math>) and Gibb's free energy (<math>\Delta G</math>).</p>
<b>Note:</b>	This facility is available for IISER Kolkata internal as well as of external users.

### Necessary information

Operator's Name: Tamal Ghosh Operator's Mail id: tamal.ghosh@iiserkol.ac.in LAN no: +91 33 61360000 Ext no: 2202	<u>Location of the instrument</u> Room no: N-212 Building : Teaching and Research complex
Faculty in Charge: Dr. Babu Sudhamalla Mail id of the Faculty in Charge: s.babu@iiserkol.ac.in	

Rate Chart and Booking policy (Per hour)	Special Instructions
Internal: Department policy <i>External (Academia):</i> 1000 INR+ GST (18%) <i>External (Industry):</i> 2000 INR+ GST (18%) <u>Internal booking:</u> Department policy <u>External booking:</u> Contact Operator(s) by mail	1. Samples should be aqueous soluble, non sticky and colorless. 2. 80 ml methanol, 4 PCR tube needed for 4 experiments in a full day (approx).

## Real-time biomolecular interaction analysis

Made	BiacoreT200 (GE)
Model:	BiacoreT200
Specification:	<p>Real-time bimolecular interaction analysis refers to techniques used to study the binding and dissociation of two molecules in real-time, without needing to label them. This allows researchers to observe the kinetics and affinity of interactions as they occur. These techniques are crucial for understanding various biological processes and drug discovery.</p> <p>Several technologies enable real-time bimolecular interaction analysis:</p> <ol style="list-style-type: none"> <li>1. Surface Plasmon Resonance (SPR): SPR measures changes in refractive index near a sensor surface when molecules bind, providing information about binding kinetics, affinity, and specificity. It's label-free, meaning no fluorescent or radioactive tags are needed, which can alter the behavior of the molecules being studied. BIAcore systems, based on SPR, are widely used for kinetic analysis of biomolecular interactions.</li> </ol>
Note:	NA


### Necessary information

Operator's Name: Soumik Sao Operator's Mail id: analyticalfacility.dbs@iiserkol.ac.in LAN no: +91 33 61360000 Ext no: 2202	<u>Location of the instrument</u> Room no: N-212 Building : Teaching and Research complex
Faculty in Charge: Dr. Rahul Das Mail id of the Faculty in Charge: <a href="mailto:rahul.das@iiserkol.ac.in">rahul.das@iiserkol.ac.in</a>	

Rate Chart and Booking policy (Per hour)	Special Instructions
Internal: Department policy <i>External (Academia): 4500 +18% GST</i> <i>External (Industry): 5500 +18% GST</i> <u>Internal booking</u> : Department policy <u>External booking</u> : Contact Operator(s) by mail	User should bring Chip(s) (e. g CM5, Ni NTA). Consumables may be supplied upon payment.




## Multimode Plate Reader

Made	BioTek
Model:	Citation 5
Specification:	 <p>BioTek Cytation 5 combines automated microscopy and conventional microplate detection in a configurable, upgradable platform. The microscopy module offers up to 60x magnification in fluorescence, brightfield, high contrast brightfield, color brightfield, and phase contrast to address many applications and workflows. The multimode detection modules include filter- and monochromator-based fluorescence detection, luminescence, and UV-Vis absorbance detection. Gen5 software provides complete control over all imaging and data capture, plus powerful image and data analysis</p>
Note:	This facility is supported with CO <sub>2</sub> and O <sub>2</sub> cylinder with digital control unit

Necessary information	
Operator's Name: Soumik Sao Operator's Mail id: analyticalfacility.dbs@iiserkol.ac.in LAN no: 2202	<u>Location of the instrument</u> Room no: N-212 Building : Teaching and Research complex
Faculty in Charge: Dr. R. Das Mail id of the Faculty in Charge: rahul.das@iiserkol.ac.in	

Rate Chart and Booking policy (Per hour)	Special Instructions
Internal: Department policy <i>External (Academia): 500 +18% GST</i> <i>External (Industry): 1100 +18% GST</i> <u>Internal booking:</u> Department policy <u>External booking:</u> Contact Operator(s) by mail	NA

# Circular Dichroism Spectrophotometer

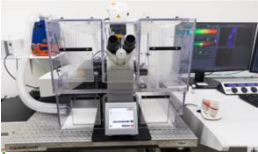
<b>Made</b>	<b>Jasco JAPAN</b>
<b>Model:</b>	<b>J- 1500-450</b>
<b>Specification:</b>   <p>The J-1500 Circular Dichroism Spectrophotometer allows for maximum flexibility to upgrade your CD system with different measurement techniques. While the standard measurement modes are CD, LD, and absorbance, up to four simultaneous modes can be measured when combined with a wide range of sampling accessories.</p> <p>These accessories can measure a variety of samples. Temperature control systems can be coupled with multi-position cells to run thermal melts, providing researchers with CD and thermodynamic data sets for conformational and folding studies.</p> <p>The wavelength range has also been significantly extended, allowing measurements to be obtained in both the vacuum-UV and NIR spectral regions using the standard PMT detector (163 – 950 nm) and an optional InGaAs detector (up to 1600 nm).</p>	
<b>Note:</b>	This instrument is supported with N <sub>2</sub> generator.

## Necessary information

<b>Operator's Name:</b> Soumik Sao <b>Operator's Mail id:</b> analyticalfacility.dbs@iiserkol.ac.in <b>LAN no:</b> +91 33 61360000 <b>Ext no:</b> 2202	<u><b>Location of the instrument</b></u> <b>Room no:</b> N-212 <b>Building :</b> Teaching and Research complex
<b>Faculty in Charge:</b> <b>Mail id of the Faculty in Charge:</b> arnab.gupta@iiserkol.ac.in	

<b>Rate Chart and Booking policy [Hourly basis]</b>	<b>Special Instructions</b>
<i>Internal:</i> Department policy <i>External (Academia):</i> 750 +18% GST <i>External (Industry):</i> 2000 +18% GST <u>Internal booking:</u> Department policy <u>External booking:</u> Contact Operator(s) by mail	1. User should bring cuvette. 2. Only for biological samples.

## Microscopy

<b>Made</b>	
<b>Model:</b>	Leica – SP8
<b>Specification:</b> 	<p>The Leica SP8 is a versatile confocal microscope platform, known for its high-speed, multi-spectral, and super-resolution capabilities, making it suitable for both fixed and live cell imaging. It utilizes laser scanning technology to acquire optical sections, enabling the generation of high-resolution 3D images. The SP8 is equipped with various features like a resonant scanner for rapid imaging, highly sensitive detectors for low-light detection, and tunable excitation and detection for precise fluorophore selection</p>
<b>Note:</b>	

### Necessary information

Operator's Name: NA Operator's Mail id: NA LAN no: NA	<u>Location of the instrument</u> Room no: N 216 Building : Teaching and Research complex
Faculty in Charge: Dr. Arnab Gupta Mail id of the Faculty in Charge: <a href="mailto:arnab.gupta@iiserkol.ac.in">arnab.gupta@iiserkol.ac.in</a> <u>Internal booking</u> : Department policy <u>External booking</u> : Contact Operator(s) by mail	

Rate Chart and Booking policy [Hourly basis]	Special Instructions
<i>Internal</i> : Department policy <i>External (Academia)</i> : 1000 + 18% GST <i>External (Industry)</i> : 2000 +18 % GST <u>Internal booking</u> : Department policy <u>External booking</u> : Contact Operator(s) by mail	NA

## Fluorescence Lifetime Imaging Microscope (FLIM)


<b>Made</b>	<b>Becker &amp; Hickl</b>
<b>Model:</b>	DCS-120
<b>Specification:</b>	<p>The DCS-120 confocal FLIM system from Becker &amp; Hickl with an inverted microscope of Zeiss which uses excitation by ps diode lasers (488 nm and 405 nm), fast scanning by galvanometer mirrors, confocal detection, and FLIM by bh's multidimensional TCSPC technique. It records fluorescence lifetime images with high spatial resolution and sensitivity. Fluorescence lifetimes can be detected down to 100 ps. The pixel format can be increased to 2048 x 2048.</p> <p>DCS-120 functions include recording of FLIM, time-series FLIM, Z-Stack FLIM, and FCS recording. Applications focus on metabolic imaging, i.e. the use of lifetime changes by interactions of fluorophores with their molecular environment. Data analysis is performed by BH's new SPC Image NG FLIM analysis software. 2D time-domain histograms, and automatic modelling of the system IRF. Repeated recalibration by recording the actual IRF is thus unnecessary.</p>



<b>Necessary info</b>	
Operator's Name: Trained students Operator's Mail id: mm23rs094@iiserkol.ac.in LAN no: +91 33 61360000 Ext no: 1268	<u>Location of the instrument</u> Room no: E-350 Building : Research Complex
Faculty in Charge: Prof. Pradipta Purkayastha Mail id of the Faculty in Charge: ppurkayastha@iiserkol.ac.in	

<b>Rate Chart [Hourly basis]</b>	<b>Special Instructions</b>
Internal: Department policy External (Academia): 500 +18% GST External (Industry): 2000 +18% GST	<ol style="list-style-type: none"> <li>1. User should consult the student-in-charge or the FIC before sample preparation.</li> <li>2. Urgency of the experiment will be decided by the FIC.</li> </ol>



# Thermogravimetric analysis (TGA) & Differential Scanning Calorimetry (DSC)

<b>Made</b>	<b>Perkin Elmer</b>
<b>Model:</b>	TGA (TL 8000e) and DSC ( DSC 4000)
<b>Specification:</b>	 <p>Simultaneous Thermal Analysis combines Differential Scanning Calorimetry (DSC) and Thermogravimetry (TGA). The TGA/DSC is an advanced thermogravimetric analyzer with a high-temperature furnace, specifically designed to analyze the thermal properties of a wide range of materials. It provides valuable insights into material behavior by measuring weight loss and thermal transitions, making it ideal for applications in material development, pharmaceuticals, and polymer research. This instrument is essential for studying decomposition temperatures, moisture content, oxidation stability, and phase transitions, supporting innovation and optimization of materials across various industries and research fields.</p>

<b>Necessary info</b>	
Operator's Name: Uday Bhanu Sen Operator's Mail id: uday.sen@iiserkol.ac.in LAN no: +91 33 61360000 Ext no:1516	<u>Location of the instrument</u> Room no: N-301 Building : Research complex
Faculty in Charge: Dr. Ratheesh K Vijayaraghavan Mail id of the Faculty in Charge: ratheesh@iiserkol.ac.in	

<b>Rate Chart [Per Sample]</b>	<b>Special Instructions</b>
Internal: Department policy External (Academia): 500 Rs +18% GST External (Industry): 800 Rs +18% GST	<ol style="list-style-type: none"> <li>1. User should consult the student-in-charge or the FIC before sample preparation.</li> <li>2. Urgency of the experiment will be decided by the FIC.</li> </ol>

# Transmission Electron Microscopy (TEM)

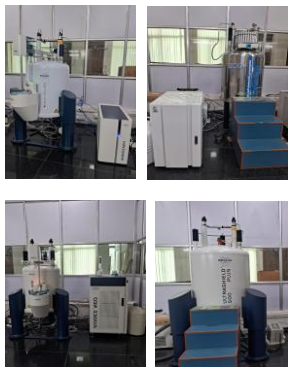
Made	JEOL Ltd. JAPAN
Model:	JEM-2100F (FEG) & JEM-2100PLUS (LaB6)
Specification:	<p>Transmission electron microscopy (TEM) is a technique that uses a beam of electrons to create highly magnified images of specimens, particularly those that are very thin or at the nanoscale. It is used in fields like materials science, biology, and nanotechnology to visualize and analyze the internal structure of materials and biological samples at a resolution far beyond what's possible with light microscopy.</p> <p><b>JEM-2100F:</b></p>  <p><b>JEM-2100PLUS:</b></p>  <p><b>JEM-2100F</b> is recommended exclusively for solid state materials to avoid contamination in the column, FEG machine will only operate at 200 kV since low accelerating voltage affects the lens stabilization. Also, we get Morphology image, HR-TEM, STEM, EDS, MAPPING, SAED.</p> <p><b>JEM-2100Plus</b> can be used for all sample types including soft materials such as gels, polymers, CRYO Samples and biological samples. LaB6 machine can be used at different voltages of 80, 100, 120, 160 and 200 kV for all samples.</p>

Necessary info	
Operator's Name: Tuhin Kumar Adak Operator's Mail id: <a href="mailto:tem@iiserkol.ac.in">tem@iiserkol.ac.in</a> LAN no: +91 33 61360000 Ext.: 1463	<u>Location of the instrument</u> Building : Teaching and Research complex Room no: W- 025, Ground floor
Faculty in Charge:  Mail id of the Faculty in Charge:	Prof. Venkataramanan Mahalingam Dr. Dibyendu Das mvenkat@iiserkol.ac.in dasd@iiserkol.ac.in

Rate Chart [Slot basis : 1 hr. 15min]	Special Instructions
Internal: Department policy External (Academia): 8000 Rs External (Industry): 15000 Rs	1. For Magnetic compound sample must need a blank grid for imaging. 2. Sample must be properly dry (moisture free).



# Nuclear Magnetic Resonance (NMR)

<b>Made</b>	<b>Bruker / Rigaku</b>
<b>Model:</b>	Avance NEO 400 MHz / JNM ECZL 400S 400 MHz / Avance NEO 500 MHz / Avance III 500 MHz
<b>Specification:</b>	 <p>NMR spectroscopy, commonly known as Magnetic Resonance Spectroscopy (MRS), is a strong analytical method used to analyze the local magnetic fields around atomic nuclei. It is based on the absorption of electromagnetic radiation by atom nuclei in the radiofrequency area, which generally ranges from 4 to 900 MHz.</p> <p>Over the last several decades, NMR spectroscopy has emerged as a major tool for identifying the structure of organic molecules. It is uncommon among spectroscopic approaches in that it is normally required to analyze and interpret the full spectrum</p>

## Necessary info

<b>Operator's Name:</b> Arnab Chattopadhyay, Parves Sajjad Mondal <b>Operator's Mail id:</b> parves.sajjad@iiserkol.ac.in arnab_cha2009@iiserkol.ac.in <b>LAN no:</b> +91 33 61360000 <b>Ext no:</b> 1172	<u><b>Location of the instrument</b></u> Room no: S-035 / G-11 Building : Research complex
<b>Faculty in Charge:</b> Prof. Balaram Mukhopadhyay <b>Mail id of the Faculty in Charge:</b> mbalaram@iiserkol.ac.in	

<b>Rate Chart [Hourly basis]</b>	<b>Special Instructions</b>
Internal: Department policy External (Academia): Rs. 1000.00 for first hour and Rs. 500.00 onwards hours +18% GST External (Industry): Rs. 2000.00 for first hour and Rs. 1000.00 onwards hours+18% GST	<ol style="list-style-type: none"> <li>1. User should consult the student-in-charge or the FIC before sample preparation.</li> <li>2. Urgency of the experiment will be decided by the FIC.</li> </ol>



## Electron Paramagnetic Resonance (EPR)


<b>Made</b>	<b>Bruker</b>
<b>Model:</b>	EMX- microX
<b>Specification:</b>	<p><b>Electron paramagnetic resonance (EPR) spectroscopy</b>, also known as electron spin resonance (ESR), is a technique used to study materials with unpaired electrons. It involves the absorption of microwave radiation by paramagnetic substances, which induces transitions between magnetic energy levels of electrons with unpaired spins. EPR is significant in various fields, including chemistry and biology, as it helps in understanding processes such as photosynthesis, oxidation, and catalysis. This method provides detailed information on the structure and bonding of paramagnetic species, making it a valuable tool in scientific research.</p>



<b>Necessary info</b>	
Operator's Name: Uday Bhanu Sen Operator's Mail id: uday.sen@iiserkol.ac.in LAN no: +91 33 61360000 Ext.: 1452	<u>Location of the instrument</u> Room no: M-047 Building : Research complex
Faculty in Charge: Dr. Parna Gupta Mail id of the Faculty in Charge: parna@iiserkol.ac.in	

<b>Rate Chart [Hourly basis]</b>	<b>Special Instructions</b>
Internal: Department policy External (Academia) + External (Industry): Room Temp: 300 Rs +18% GST Low Temperature: 500 Rs +18% GST For Undergraduate College: Room Temp: 100 Rs +18% GST, Low Temperature: 150 Rs +18% GST	<ol style="list-style-type: none"> <li>1. User should consult the student-in-charge or the FIC before sample preparation.</li> <li>2. Urgency of the experiment will be decided by the FIC.</li> </ol>


## FLS 1000

<b>Made</b>	
<b>Model:</b>	EDINBURGH INSTRUMENTS
<b>Specification:</b>  	<p>Ultimate Sensitivity: Highest sensitivity on the market, with a signal-to-noise ratio of 35,000:1, ensures that the weakest photoluminescence signals can be detected</p> <p>Modular Design: Customize the configuration to suit your specific research requirements; select from different light sources, detectors, and sample holders to create the optimal configuration</p> <p>Upgradability: Upgrade your system with additional modules as new research needs arise, protecting the investment and keeping the equipment at the cutting edge of your research</p> <p>NIR : Characterize NIR emitters with a wide range of infrared detector options with sensitivity out to 1500 nm</p> <p>Automation: Equipped with advanced Fluoracle® software for comprehensive control of experiments, data acquisition, analysis, and time-saving automation features</p> <p>Micro-Spectroscopy: Transform the FLS1000 into a powerful photoluminescence microscope with the MicroPL Upgrade; enabling high-resolution mapping of microscopic sample.</p>

Necessary info	
Operator's Name: Tania Roy Operator's Mail id: tania.roy@iiserkol.ac.in LAN no: +91 33 61360000 Ext.: 1516	<u>Location of the instrument</u> Room no: N 301 Building : Research complex
Faculty in Charge: Dr. Ratheesh K Vijayaraghavan Mail id of the Faculty in Charge: ratheesh@iiserkol.ac.in	

Rate Chart [2 hr/ Slot]	Special Instructions
Internal: Department policy External (Academia)+ External (Industry): 1000 Rs + 18% GST	<ol style="list-style-type: none"> <li>1. User should consult the student-in-charge or the FIC before sample preparation.</li> <li>2. Urgency of the experiment will be decided by the FIC.</li> </ol>


## **X-Ray Diffraction Spectrometer (XRD)**

<b>Made</b>	<b>Rigaku / Bruker</b>
<b>Model:</b>	Smart Lab SE / Miniflex-600 / D8 Quest / XtaLab Synergy-I
<b>Specification:</b> 	<p>An <b>X-ray diffraction spectrometer</b> is used for analyzing the atomic structure of materials. It works by irradiating a material with X-rays and measuring the intensities and scattering angles of the X-rays that leave the material. The technique is nondestructive and widely used in materials science for phase identification and quantification.</p>

<b>Necessary info</b>	
Operator's Name: Piyali Bose, Dr. K Srikanth Operator's Mail id: srikanth@iiserkol.ac.in, piyali.bose@iiserkol.ac.in LAN no: +91 33 61360000 Ext.:1448	<u>Location of the instrument</u> Room no: S-034 Building : Research complex
Faculty in Charge: Prof. Rahul Banerjee Mail id of the Faculty in Charge: r.banerjee@iiserkol.ac.in	

<b>Rate Chart [Per Sample]</b>	<b>Special Instructions</b>
Internal: Department policy External (Academia): SCXRD (5000 Rs +18% GST), PXRD (250 Rs +18% GST) External (Industry): SCXRD (15000 Rs +18% GST), PXRD (500 Rs +18% GST)	<ol style="list-style-type: none"> <li>1. User should consult the student-in-charge or the FIC before sample preparation.</li> <li>2. Urgency of the experiment will be decided by the FIC.</li> </ol>

# Field Emission Scanning Electron Microscope (FESEM)

Made	JEOL / CARL ZEISS
Model:	JSM-IT800 / SUPRA 55 VP
Specification:	<p>The FESEM is most commonly used for characterization technique for surface topographic studies of materials. With the FESEM it is possible to obtain a secondary electron image of organic and inorganic materials which allow topographic and morphological studies, by scanning an electron probe across the surface and monitoring emitted secondary electrons. Compositional analysis of a material may also be obtained by monitoring X-rays produced by the electron-specimen interaction. This detailed map of elemental distribution can be produced.</p>
	

Necessary info	
Operator's Name: Kashinath Sahu Operator's Mail id: sahlukashi@iiserkol.ac.in LAN no: +91 33 61360000 Ext.: 1493	<u>Location of the instrument</u> Room no: N-008 Building : Research complex
Faculty in Charge: Prof. Rahul Banerjee Mail id of the Faculty in Charge: r.banerjee@iiserkol.ac.in	

Rate Chart [2 hr/ slot]	Special Instructions
Internal: NA External (Academia): 2500 Rs + 18% GST External (Industry): 5000 Rs + 18% GST	<ol style="list-style-type: none"> <li>1. User should consult the student-in-charge or the FIC before sample preparation.</li> <li>2. Urgency of the experiment will be decided by the FIC.</li> </ol>

## Elemental Analyzer (CHN)

<b>Made</b>	<b>Perkin Elmer</b>
<b>Model:</b>	2400 Series II
<b>Specification:</b>	<p>CHNS elemental analyzers provide a means for the rapid determination of carbon, hydrogen, nitrogen and sulphur in organic matrices and other types of materials. They are capable of handling a wide variety of sample types, including solids, liquids, volatile and viscous samples, in the fields of pharmaceuticals, polymers, chemicals, environment, food and energy.</p> <p>The analyzers are often constructed in modular form such that they can be set up in a number of different configurations to determine, for example, CHN or N depending on the application. This adaptability allows not only flexibility of operation but also the use of a wide range of sample weights from a fraction of a milligram to several grams (macro-systems.)</p>



<b>Necessary info</b>	
<p>Operator's Name: Tania Roy</p> <p>Operator's Mail id: tania.roy@iiserkol.ac.in</p> <p>LAN no: +91 33 61360000 Ext.:1517</p>	<p><u>Location of the instrument</u></p> <p>Room no: E-339</p> <p>Building : Research complex</p>
<p>Faculty in Charge: Dr. Parna Gupta</p> <p>Mail id of the Faculty in Charge: parna@iiserkol.ac.in</p>	

<b>Rate Chart [Per Sample]</b>	<b>Special Instructions</b>
<p>Internal: Department policy</p> <p>External (Academia) + External (Industry): 330 Rs + 18 % GST</p>	<ol style="list-style-type: none"> <li>1. User should consult the student-in-charge or the FIC before sample preparation.</li> <li>2. Urgency of the experiment will be decided by the FIC.</li> </ol>

# Table top Atomic Force Microscopy (AFM)

Made	Oxford Instruments, Asylum Research Inc.
Model:	MFP 3D Origin / Cypher
Specification:	<p>The atomic force <b>microscope</b> (AFM) is a type of scanning probe microscope whose primary roles include measuring properties such as magnetism, height, friction. The resolution is measured in a nanometer, which is much more accurate and effective than the optical diffraction limit. It uses a probe for measuring and collection of data involves touching the surface that has the probe. An image is formed when the scanning probe microscope raster-scans the probe over a section of the sample, measuring its local properties concurrently. They also have piezoelectric elements, which are electric charges that accumulate in selected solid materials like DNA, biological proteins, crystal, etc., to enable tiny accurate and precise movement during scanning upon an electric command. The Atomic Force Microscope was invented in 1982, by scientists working in IBM, just after the invention of the Scanning tunneling Microscope in 1980 by Gerd Binnig and Heinrich Rohrer by IBM Research in Zurich. That is when Binnig later invented the Atomic Force Microscope, and it was first used experimentally in 1986. It was put on the market for commercial sale in 1989.</p>



## Necessary info

Operator's Name: Soumen Mondal  
 Operator's Mail id:  
 soumen.mondal@iiserkol.ac.in  
 LAN no: +91 33 61360000 Ext.:1452

Location of the instrument  
 Room no: W-024  
 Building : Teaching & Research complex

Faculty in Charge: Prof. Prof. Rahul Banerjee, Dr. Dibyendu Das  
 Mail id of the Faculty in Charge: r.banerjee@iiserkol.ac.in, dasd@iiserkol.ac.in

## Rate Chart [Sample Basis]

Internal: Department policy  
 External (Academia): 750 Rs +18% GST  
 External (Industry): 1500 Rs +18% GST

## Special Instructions

1. User should consult the student-in-charge or the FIC before sample preparation.
2. Urgency of the experiment will be decided by the FIC.



# X-ray Photoelectron Spectroscopy (XPS)

Made	Physical Electronics
Model:	ULVAC-PHI
Specification:	<p><b>X-ray photoelectron spectroscopy</b> is a surface-sensitive analytical technique that involves bombarding a material's surface with X-rays and measuring the kinetic energy of the released electrons. The surface sensitivity and capacity to reveal chemical state information from the elements in the sample are two significant properties of this approach that make it powerful as an analytical tool. X-ray Photoelectron Spectroscopy (XPS), also known as Electron Spectroscopy for Chemical Analysis (ESCA), is a technique used to assess the quantitative atomic composition and chemistry of a substance. When a sample is exposed to monochromatic X-rays, photoelectrons with energy characteristic of the elements inside the sampling volume are emitted</p>



## Necessary info

Operator's Name: Mrinal Kanti Garai

Operator's Mail id:

[mrinal555@iiserkol.ac.in](mailto:mrinal555@iiserkol.ac.in)

LAN no: +91 33 61360000 Ext.:2168

Location of the instrument

Room no: W-024

Building : Teaching & Research complex

Faculty in Charge: Prof. Sayan Bhattacharyya & Prof. Sayam Sengupta

Mail id of the Faculty in Charge: sayanb@iiserkol.ac.in,

sayam.sengupta@iiserkol.ac.in

## Rate Chart

Internal: Department policy

External:


**1) 3 hr Slot:** Academic: 2500, Govt. funded labs: 4000, External (Industry): 8000. **2) XPS + depth profiling (per extra hour):** *Booking Slot: (a) XPS Measurements 10am-1pm and 2pm-5pm (per slot 3hr). [Three or four samples per slot, depending on the number of elements present in each sample] :* Academic: (XPS charges) + 2000 + 18% GST Govt. funded labs: (XPS charges) + 3000 + 18% GST. Private/Industry: (XPS charges) + 5000 + 18% GST. **3) UPS (per sample):** *UPS Measurement 10am- 5pm (Full day) [Three or four samples, Ground and -10V Bias] :* Academic: 2000 + 18% GST Govt. funded labs: 3000 + 18% GST. Industry: 4000 + 18% GST.

**NOTE: a) User should consult the operator or the FiC before sample preparation.**

**b) Urgency of the experiment will be decided by the FiC.**



## Rheometer

<b>Made</b>	<b>Anton-Paar</b>
<b>Model:</b>	MCR 102e
<b>Specification:</b>	 <p>The MCR 102e Rheometer is a modular, high-precision rheological instrument designed to analyze the flow and deformation behavior of complex materials. Equipped with a robust air bearing and an EC synchronous motor, it offers exceptional torque sensitivity as low as 5 Nm for both rotational and oscillatory modes. With a wide temperature range from -160 °C to +1000 °C and pressure tolerance up to 1000 bar, the MCR 102e is suitable for a broad spectrum of rheological applications - from polymers and soft matter to high-performance materials. Its versatile accessory compatibility allows seamless expansion into areas like tribology, powder rheology, and DMA, making it a reliable choice for both routine and advanced research.</p>
<b>Note:</b>	This instrument is supported with Compressor and Chiller.

<b>Necessary info</b>	
Operator's Name: Trained student users Operator's Mail id: NA LAN no: +91 33 61360000 Ext.:1516	<u>Location of the instrument</u> Room no: DCS Instrument Room Building : Research complex
Faculty in Charge: Dr. Dibyendu Das Mail id of the Faculty in Charge: dasd@iiserkol.ac.in	

<b>Rate Chart [Hourly basis]</b>	<b>Special Instructions</b>
Internal: NA External (Academia): 1000 + 18% GST per sample External (Industry): 2500+18% GST per sample	NA


## HRMS ESI

Made	Waters USA
Model:	Xevo G2-XS QTOF
Specification:	<p>High-resolution mass spectrometer combined with electrospray ionization(ESI) is a powerful analytical technique used to identify the complex molecules with exceptional precision &amp; sensitivity.</p> <p>HRMS provides high level of mass accuracy &amp; resolution, enabling the differentiation of compounds with very close mass to charge ratio (<math>m/z</math>). It is capable of measuring masses within 0.001 atomic mass unit.</p>
Note:	This instrument is supported with Ar cylinder.

Necessary info	
Operator's Name: Anshuman Singh Operator's Mail id: hrmsfacility@iserkol.ac.in LAN no: +91 33 61360000 Ext.:2120	<u>Location of the instrument</u> Room no: N-008 Building : Teaching and Research complex
Faculty in Charge: Dr. Biplab Maji Mail id of the Faculty in Charge: bm@iiserkol.ac.in	

Rate Chart [Hourly basis]	Special Instructions
Internal: Department policy External (Academia): 750 +18% GST External (Industry): 3000 +18% GST	<ol style="list-style-type: none"><li>1. User should bring 1mL syringe, 0.22 <math>\mu</math>m filter and GC grade vials for each sample.</li><li>2. The sample should be purified through the column chromatography or crystallization.</li></ol>

## Atomic Force Microscopy (AFM)

<b>Made</b>	<b>Oxford Instruments</b>
<b>Model:</b>	MFP 3D Infinity
<b>Specification:</b> 	<p>The MFP 3D Infinity AFM supports a wide range of standard and specialized imaging modes, including tapping, contact and non-contact modes, conductive AFM, KPFM, nanoindentation. It offers the highest performance and versatility in its class, delivering high-resolution imaging in both air and fluid with a 120 <math>\mu\text{m}</math> XY range and 15 <math>\mu\text{m}</math> Z range (40 <math>\mu\text{m}</math> optional). Its modern flexured and sensed scanner design makes the AFM easier to use and improves measurement accuracy. Full suite of nanomechanical characterization modes are available for measuring viscoelastic properties (storage/elastic modulus and loss modulus). There is a wide range of nanoelectrical and electromechanical characterization modes present. It offers numerous environmental accessories for temperature control.</p>

<b>Necessary info</b>	
Operator's Name: Soumen Mondal Operator's Mail id: soumen.mondal@iiserkol.ac.in LAN no: +91 33 61360000 Ext.: 1470	<u>Location of the instrument</u> Room no: W-321 Building : Teaching and Research complex
Faculty in Charge: Dr. Dibyendu Das Mail id of the Faculty in Charge: dasd@iiserkol.ac.in	

<b>Rate Chart [Hourly basis]</b>	<b>Special Instructions</b>
Internal: Department policy External (Academia): Rs 3000 +18% GST per sample for academia (government organizations) External (Industry): Rs 10000 +18% GST (industry or other non-government organizations)	User should bring prepared samples on appropriate solid supports like silicon wafer.

## Liberty Blue peptide synthesizer


<b>Made</b>	India
<b>Model:</b>	CEM LIBERTY BLUE
<b>Specification:</b>	<p>The Liberty Blue™ automated microwave peptide synthesizer features a 4-minute cycle time, along with a 90% solvent reduction, based on High-Efficiency Solid-Phase Peptide Synthesis (HE-SPPS).</p> <p><b>Amino Acid Bottles</b></p> <ul style="list-style-type: none"> <li>○ 27 amino acid positions</li> <li>○ Up to 120-mL capacity per position</li> <li>○ Utilizes Flex-Add critical reagent delivery system</li> </ul> <p><b>Fiber Optic</b></p> <ul style="list-style-type: none"> <li>○ True internal fibre-optic temperature control</li> </ul> <p><b>Reaction Vessels</b></p> <ul style="list-style-type: none"> <li>○ Only two vessel sizes for 0.005 to 5.0 mmol synthetic scales</li> <li>○ Replaceable reaction vessel frits reduce consumable costs</li> </ul> <p><b>Microwave Reactor</b></p> <ul style="list-style-type: none"> <li>○ Fastest and most controlled technology for peptide synthesis at elevated temperature</li> <li>○ Technology for applying microwave energy to both the coupling and deprotection</li> </ul> <p><b>Solvent-resistant Composite Covers</b></p> <ul style="list-style-type: none"> <li>○ Maintains instrumentation finish and laboratory appearance</li> </ul>
<b>Note:</b>	This instrument is supported with N <sub>2</sub> cylinder.

### Necessary info

Operator's Name: Janardan Chakraborty	<u>Location of the instrument</u>
Operator's Mail id: jc23rs031@iiserkol.ac.in	Room No: W-321
LAN no: +91 33 61360000 Ext.: 1472	Building: Prof D. Das Lab ,Teaching and Research Complex (TRC)
Faculty in Charge: Dr. Dibyendu das	
Mail id of the Faculty in Charge: dasd@iiserkol.ac.in	

Rate Chart [Sequence basis]	Special Instructions
Internal: Department policy External (Academia): 250 +18% GST (per residue) External (Industry): 750 +18% GST (per residue)	User should bring: Consumables for the desired sequence.

## Two Isotope Ratio Mass spectrometer and its peripherals (two Gas Bench II, Flash 2000, Trace GC-TC and Kiel IV Carbonate)

Made	Thermo Fisher Scientific
Model:	MAT 253 & DELTA V PLUS
Specification:	Our isotope ratio mass spectrometers (IRMS) are the instruments of choice for measuring stable isotope signatures with extreme precision and sensitivity, enabling the user to gain unique insights into the history and origin of compounds found in a variety of samples.
	
Note:	User must select peripheral as per requirement.

### Necessary information

Operator's Name: Mahesh Ghosh  
 Operator's Mail id:  
 mahesh.jta@iiserkol.ac.in  
 LAN no: +91 33 61360000 Ext.: 1497

Location of the instrument  
 Room no: E043  
 Building : Research complex

Faculty in Charge: Prof. Prasanta Sanyal  
 Mail id of the Faculty in Charge: psanyal@iiserkol.ac.in  
Internal booking: Department policy  
External booking: Contact Operator(s) by mail

### Rate Chart and Booking policy [Per Sample]

Internal: Department policy

IRMS charges for different peripherals (per Sample):

a) Gasbench II (for both  $\delta D$  and  $\delta^{18}O$  isotope ratio in water): External (Academia): 1500 + 18% GST, External (Industry): 2000 +18 % GST.

b) Keil IV Carbonate (for both  $\delta^{13}C$  and  $\delta^{18}O$  isotope ratio in carbonate): External (Academia): 1000 + 18% GST, External (Industry): 2000 +18 % GST.

c) Trace GC-TC (for compound specific analysis of each isotope  $\delta^{13}C$  and  $\delta D$  of organic samples): External (Academia): 2000 + 18% GST, External (Industry): 4000 +18 %. GST

d) Flash 2000 Elemental Analyzer (for each isotope  $\delta^{15}N$  ,  $\delta^{13}C$  and  $\delta^{18}O$  of organic samples): External (Academia): 1000 + 18% GST, External (Industry): 2000 +18 % GST.

e) Gas Bench II (for both  $\delta^{15}N$  and  $\delta^{18}O$  isotope ratio of dissolved nitrate in water): External (Academia): 2500 + 18% GST. External (Industry): 3000 +18 % GST.

Internal booking: Department policy

External booking: Contact Operator(s) by mail

## LCMSMS

<b>Made</b>	<b>Thermo Fisher Scientific</b>
<b>Model:</b>	LTQ XL
<b>Specification:</b>	<p>Liquid chromatography/mass spectrometry (LC/MSMS) brings powerful analytical capability to a wide range of applications. Complete LC/MS workflows feature sample preparation, InfinityLab chromatography, and mass spectrometry, as well as software to acquire high-quality data and turn it into definitive answers.</p> <p>Liquid chromatography/mass spectrometry instruments provides the versatility and performance to solve virtually any analytical challenge. A broad selection of ion sources enables the most flexible detection for the variety of compound classes amenable to HPLC separation and beyond. Powerful software along with curated compound databases allow you to quickly set up an method for your specific application.</p>
<b>Note:</b>	

### **Necessary information**

Operator's Name: Mahesh Ghosh  
Operator's Mail id:  
mahesh.jta@iiserkol.ac.in  
LAN no: +91 33 61360000 Ext.:1497


Location of the instrument  
Room no: E043  
Building : Research complex

Faculty in Charge: Prof. Prasanta Sanyal  
Mail id of the Faculty in Charge: psanyal@iiserkol.ac.in  
Internal booking: Department policy  
External booking: Contact Operator(s) by mail

### **Rate Chart and Booking policy [Per Sample]**

Internal: Department policy  
External (Academia): 1500 + 18% GST, External (Industry): 2000 +18 % GST.  
Internal booking: Department policy  
External booking: Contact Operator(s) by mail

## ICP-Q-MS

<b>Made</b>	
<b>Model:</b>	Thermo Fisher
<b>Specification:</b>  	<p><b>ICP-MS—inductively coupled plasma mass spectrometry—</b> is a fast, multielement, atomic spectrometry technique used for inorganic, elemental analysis. ICP-MS can measure almost every element and provides low detection limits, high sample throughput, and measurement over a wide concentration range</p>
<b>Note:</b>	

### Necessary information

<b>Operator's Name:</b> Santosh Ch Das <b>Operator's Mail id:</b> santosh.das@iiserkol.ac.in <b>LAN no:</b> +91 33 61360000 Ext.:xxxx	<u><b>Location of the instrument</b></u> Room no: xxxx Building : Research complex
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**Faculty in Charge:** Dr. Sanjay Kumar Mandal  
**Mail id of the Faculty in Charge:** sanjaykm@iiserkol.ac.in  
**Internal booking:** Department policy  
**External booking:** Contact Operator(s) by mail

### Rate Chart and Booking policy [Per Sample]

**Internal:** Department policy  
**a)** Major elements (Si, Ca, Na, K, Mg, Al, Mn, Fe, P, and Ti) in processed sample  
*External Academia:* 500 + 18% GST *External (Industry):* 1000 +18 % GST.  
**b)** Trace/Rare Earth elements in processed sample: *External (Academia):* Rs. 1500 (up to 10 elements and Rs. 150 will be charged extra for each additional element) + 18% GST. *External (Industry):* Rs. 3000 (up to 10 elements and Rs. 300 will be charged extra for each additional element) + 18% GST.  
**Internal booking:** Department policy  
**External booking:** Contact Operator(s) by mail



## ICP OES

<b>Made</b>	
<b>Model:</b>	iCAP 7400 Plus series
<b>Specification:</b>	Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES) is an analytical technique used to determine the elemental composition of various samples. It works by exciting atoms and ions in a high-temperature plasma, which then emit light at characteristic wavelengths. This emitted light is analyzed to quantify the elements present in the sample. ICP-OES is widely used in fields such as environmental monitoring, food safety, and materials science for its ability to detect trace elements with high sensitivity and accuracy.
	
<b>Note:</b>	

### **Necessary information**

Operator's Name: Jay Karmakar	<u>Location of the instrument</u>
Operator's Mail id: jk24rs067@iiserkol.ac.in	Room no: W122
LAN no: +91 33 61360000 Ext.:1545	Building : Research complex

Faculty in Charge: Dr. Gopal K Dharbha  
 Mail id of the Faculty in Charge: gkdarbha@iiserkol.ac.in  
Internal booking: Department policy  
External booking: Contact Operator(s) by mail

### **Rate Chart and Booking policy [Per Sample]**

Internal: Department policy  
 a) Without Hydride generator: External (Academia): 2000 + 18% GST External (Industry): 5000 +18 % GST. b) With Hydride External (Academia): 4000 + 18% GST External (Industry): 10000 +18 % GST  
Internal booking: Department policy  
External booking: Contact Operator(s) by mail

## WDXRF

<b>Made</b>	Bruker-AXS, Germany
<b>Model:</b>	<b>S8 TIGER</b>
<b>Specification:</b>	<p>X-ray fluorescence (XRF) spectrometry is a non-destructive analytical technique used to obtain elemental information from different types of materials.</p> <p>It is employed in many industries and applications including: cement production, glass production, mining, mineral beneficiation, iron, steel and non-ferrous metals, petroleum and petrochemicals, polymers and related industries, pharmaceuticals, healthcare products and environmental.</p> <p>Spectrometer systems are generally divided into two main groups: wavelength dispersive systems (WDXRF) and Energy dispersive systems. The difference between the two lies in the detection system.</p>
<b>Note:</b>	

### Necessary information

Operator's Name: Biswajit Giri  
 Operator's Mail id:  
 giri.biswajit605@iiserkol.ac.in  
 LAN no: +91 33 61360000 Ext.:1494


Location of the instrument  
 Room no: W120  
 Building : Teaching and Research complex

Faculty in Charge: Prof. Manoj Kr Jaiswal  
 Mail id of the Faculty in Charge: manoj@iiserkol.ac.in  
Internal booking: Department policy  
External booking: Contact Operator(s) by mail

### Rate Chart and Booking policy [Per Sample]

Internal: Department policy  
**Pre Processing Sample:** Ten grams of finely grinded and dried sample (Soil, Rock, Sediment etc.) powders (at least –200 mesh sizes) are to be supplied with Loss on Ignition (LOI) values. Pressed pellets (Major and trace elements): External (Academia): 1600 + 18% GST External (Industry): 2500 +18 % GST.  
Internal booking: Department policy  
External booking: Contact Operator(s) by mail

## **XFUSE2 ELECTRIC**

<b>Made</b>	<b>XRF SCIENTIFIC</b>
<b>Model:</b>	XR FUSE 2
<b>Specification:</b> 	<p>The machine represents the best elements of established fusion range with significant advances in safety and design. Designed with the latest thermal imaging technology, customer tested in the biggest laboratories in the world. The xrFuse 2 is designed with the customer in mind.</p> <p><b>Key Technical Specifications</b>  Temperature range to 1250C  24 programmable recipes</p> <p><b>Zero Contamination</b>  The platinum crucible and holders ensure that the environment for creating beads has zero contamination in comparison with that typically found with Inconel based solutions.</p> <p><b>Process Visibility</b>  The glass viewing panel allows the customer to view the key elements of the fusion process in action. This is particularly important for method development.</p>
<b>Note:</b>	NA

### **Necessary information**

<b>Operator's Name:</b> Biswajit Giri <b>Operator's Mail id:</b> giri.biswajit605@iiserkol.ac.in <b>LAN no:</b> +91 33 61360000 Ext.:1494	<u>Location of the instrument</u> Room no: W120 Building : Research complex
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Faculty in Charge: Prof. Manoj Kr Jaiswal  
Mail id of the Faculty in Charge: manoj@iiserkol.ac.in  
Internal booking: Department policy  
External booking: Contact Operator(s) by mail

### **Rate Chart and Booking policy [Per Sample]**


Internal: Department policy  
Fusion pellets (Major elements): External (Academia): 2500 + 18% GST External (Industry): 3500 +18 % GST.  
Internal booking: Department policy  
External booking: Contact Operator(s) by mail

# FUND TRANSFER THROUGH PUBLIC FINANCIAL MANAGEMENT SYSTEM (PFMS)

## DETAILS OF ORGANIZATION

1	PFMS Unique Code	601995
2 (*)	Agency Name (Name of the University/ Institute/ College, etc.)	INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH KOLKATA
2 (ii)	Agency Type (Statutory Bodies/Autonomous/NGO/Society etc.)	AUTONOMOUS
2 (iii)	Hierarchy of Agency (Central/State/ District/Block/Tehsil/Panchayat Village)	CENTRAL
2 (i*)	Act/registration No.	THE NATIONAL INSTITUTE OF TECHNOLOGY (AMENDMENT) ACT, 2012 (No.28 of 2012) (copy enclosed)
(v)	Date of Registration	Amendment Act. Dt. Gazette notification is June 8, 2012
2 (vi)	Registering Authority	Secretary to Government of India
3	State of Registration	West Bengal
	TIN No. (If available)	NA
4	TAN No.	CALI0237IF
4 (i)	Pan No.	AAAAI2170E
4 (ii)	GST No.	19AAAAI2170E1 Z0
	Complete Contact Address of the Agency	CV Raman Building (AAC)
5 (i)	Block No./Building/Name of Premises	Mohanpur
5 (iis)	Road/Street/Post Office	Mohanpur
5 (ii)	Area/Locality	
5 (i*)	City/ District	Nadia
5 (v)	State	West Bengal
5 (vi)	Pin code	741246
6	Contact Person	Mr. Chinmay Sarkar
6 (id)	Designation	Assistant Registrar, Research and Development
6 (ii)	Phone Number (Land Line)	03361360032
6 (iii)	Alternate Phone No./Mobile No.	033 61360060
6 (iv)	Official Email address	rndaiiserkol.ac.in
7	Bank Account details	
7 (i)	Institution's Account Name (As per bank record)	IISER KOLKATA EARMARKED FUND
7 (ii)	Account No.	32S001000001647
7 (iii)	IFSC Code	IOBA0003250
7 (iv)	Bank name (in full)	INDIAN OVERSEAS BANK
7 (v)	Branch Name	Mohanpur
7 (vi)	Complete Branch address	P.O.: Krishi Viswavidyalaya, Mohanpur Dist. Nadia, West Bengal 741 252
7 (vii)	MICR No.	700020092
7 (viii)	Account Type	SAVING

Date:

 Signature of the Competent Authority of the Agency with seal.

Certified that the particulars furnished above are correct as per our records

Date:

Signature of the Authorized  
Official with seal.



**INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH  
KOLKATA OFFICE OF RESEARCH AND DEVELOPMENT**

Mohanpur – 741 246

Phone: +91 33 6630 0060, Fax: + 91 33 2334 7425

Email: [rnd@iiserkol.ac.in](mailto:rnd@iiserkol.ac.in), Web: <http://dord.iiserkol.ac.in>

**FORM NO. R&D 34**

**PAYMENT FORM FOR USE OF CENTRAL INSTRUMENTS FACILITY  
(CIF)**

<b>Instrument to be used</b>	
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<b>Name of user</b>	
<b>Designation</b>	
<b>Address</b>	
<b>Telephone/Mobile No.</b>	
<b>Email</b>	

<b>Amount of Charges</b>	₹	Rupees	only
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<b>User Category (pl. tick)</b>	<b>Mode and source of payment</b>			
Other Govt. Institutions	<b>Demand Draft No.</b>		<b>Date</b>	
Industry/Private	<b>Demand Draft No.</b>		<b>Date</b>	
IISER Kolkata (internal fund transfer)	<b>PDAP</b>	<b>Cheque</b>	<b>Others</b>	
	<b>Project Name</b>			

Nature of analysis and sample information:

**UNDERTAKING**

- I/We undertake to abide by the safety and sample preparation guidelines and precautions during testing of my samples. I/We shall not claim for any damage/harm to my samples submitted for the analysis. ■ I/We shall give due acknowledgement of the use of Instruments in published papers/thesis/reports and also send a copy to IISER Kolkata.
- IISER Kolkata shall not take any responsibility about the analysis, interpretation and publication of data acquired using the Central Instrument Facilities. ■ I/We have attached herewith the demand draft or cheque or authorizing to deduct the necessary user charges as mentioned above.

\_\_\_\_\_  
Signature of User  
Date:

**Job Order Number (Sl.No. of Analysis):**

**Important Note:**

- ✓ Kindly consult operating in-charge for all details regarding sample before bringing your samples for analysis.
- ✓ The sample charge has to be paid in advance. All external payments should be made in the form of DD in favour of "IISER Kolkata" and payment should be sent to the Dean, R&D, IISER Kolkata, Mohanpur - 741 246.
- ✓ The form will be finally sent to Office of R&D along with the DD/Cheque for depositing in bank accounts and also for book-keeping of internal fund transfer from PDAP/Project/other sources.
- ✓ User charges are uploaded in the Intranet/website.

**For Office Use Only:**

Date of submission of requisition:

Payment: ₹      DD No.

Dated:

Date of receiving of sample:

**Signature of Operating In-charge**

**Date:.....**

**Signature of Instrument Faculty In-charge**

**Date: .....**



**INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH**  
**KOLKATA OFFICE OF RESEARCH AND DEVELOPMENT**

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Email: [icif@iiserkol.ac.in](mailto:icif@iiserkol.ac.in) Web: <http://dord.iiserkol.ac.in>

**REFUND FORM FOR USE OF CENTRAL INSTRUMENTS FACILITY (CIF)**  
**(To be filled by the user only, fill in Block letters)**

Name of user	
Designation	
Address	
Telephone/Mobile No.	
Email	

Amount of Refund ₹	Rupees only
Bank Acc. number	
Acc. holder's name	
IFSC code	
Address of the Bank	
Reason of Refund Excess amount sent/ Experiment not done / Any other reason(s)	

**UNDERTAKING**

- I/We declare that the above set of information are true to my knowledge.

Signature of User  
Date:

**Verification by concerned authority**  
**Official purpose**

Verified by (Operator's signature with date)
Forwarded by (FIC's signature with date)

- The refund process may take certain amount of time IISER Kolkata does not take any responsibility in case of payment failure.