



Advanced Instrumentation Research Facility

(All sample to be prepared by users at their end unless specified).
Please Note before bringing samples, consult concerned AIRF staff member(s)

Revised in May, 2010

Instrument Facility	Charges for JNU Users	Charges for other Universities/ Research Institutions	Charges for Industries/ Central Pollution control board/Forensic Labs	Remarks
Transmission Electron Microscope (TEM) (TEM sample preparation Unit functional)	(a) Sample preparation (3 blocks/ specimen; LM slide and 3 grid stained) Rs. 450/- per sample (b) Negative Staining Rs. 150/- per sample Viewing only: Rs. 200/-per sample Viewing + EDX: Rs. 400/- per sample Viewing + EDX (Mapping): Rs. 500/- per sample	(a) Sample preparation (3 blocks/ specimen; LM slide and 3 grid stained) Rs. 1500/- per sample (b) Negative Staining Rs. 500/- per sample Viewing only: Rs. 1000/-per sample Viewing + EDX: Rs. 1500/- per sample Viewing + EDX (Mapping): Rs. 2,000/- per sample	(a) Sample preparation (3 blocks/ specimen; LM slide and 3 grid stained) Rs. 6000/- per sample (b) Negative Staining Rs. 1500/- per sample Viewing only: Rs. 4000/- per sample Viewing + EDX: Rs. 6000/- per sample Viewing + EDX (Mapping): Rs. 7,000/- per sample	Ten different views/ magnifications shall be provided per sample. Rs. 50/- charged extra per image. <ul style="list-style-type: none"> • Biological samples will be accepted only after primarily fixation with suitable fixative. • For TEM, samples should be trimmed into 1.0 -1.5 mm thick pieces (4 - 5 pieces for each sample). • Fixation may be done in 2.5 % Glutaraldehyde and 2 % paraformaldehyde made in 0.1 M sodium phosphate buffer (pH 7.2). The fixed sample should be brought at AIRF, JNU in fixative or in phosphate buffer at 4 °C preferably between 10 am to 1 pm (Working days). • Maximum of 10 samples per requisition form will be accepted.
Scanning Electron Microscope (SEM) (SEM sample preparation Unit functional)	Coating: Rs. 100/- per sample <ul style="list-style-type: none"> • Biological Sample Rs. 200/- per sample (Fixation, dehydration, critical point drying and coating) a) High Vacuum Mode: Viewing only: Rs. 100/-per sample Viewing + EDX: Rs. 300/- per sample Viewing + EDX (Mapping): Rs. 300/- per sample b) Low Vacuum Mode: Viewing only: Rs. 300/- per sample	Coating: Rs. 200/- per sample <ul style="list-style-type: none"> • Biological Sample Rs. 600/- per sample (Fixation, dehydration, critical point drying and coating) a) High Vacuum Mode: Viewing only: Rs. 500/-per sample Viewing + EDX: Rs. 1,200/- per sample Viewing + EDX (Mapping): Rs. 1,500/- per sample b) Low Vacuum Mode: Viewing only: Rs. 1000/- per sample	Coating: Rs. 500/- per sample <ul style="list-style-type: none"> • Biological Sample Rs. 2000/- per sample (Fixation, dehydration, critical point drying and coating) a) High Vacuum Mode: Viewing only: Rs. 2000/- per sample Viewing + EDX: Rs. 3,000/- per sample Viewing + EDX (Mapping): Rs. 4,000/- per sample b) Low Vacuum Mode: Viewing only: Rs. 3000/- per sample	Ten images per sample would be provided. Rs. 50/- charged extra per image. <ul style="list-style-type: none"> • Biological samples will be accepted only after primarily fixation with suitable fixative. • For SEM, samples the thickness may be upto 1 cubic cm. • Fixation may be done in 2.5 % Glutaraldehyde and 2 % paraformaldehyde made in 0.1 M sodium phosphate buffer (pH 7.2). The fixed sample should be brought at AIRF, JNU in fixative or in phosphate buffer at 4 °C preferably between 10 am to 1 pm (Working days). • Maximum of 10 samples per requisition form will be accepted.

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<p>Confocal Microscope</p> <p>Inverted Research Fluorescence Microscope</p> <p><i>FOR CONFOCAL FACILITY, PLEASE REFER TO USER INSTRUCTIONS ON WEBSITE.</i></p>	<ul style="list-style-type: none"> • Rs 200/- per hour • Rs 100/- per sample for FRET • Rs. 100/- per sample for FRAP • Rs. 100/- per sample for FCS <p style="text-align: center;">-</p>	<ul style="list-style-type: none"> • Rs 1000/- per hour • Rs 200/- per sample for FRET • Rs. 200/- per sample for FRAP • Rs. 200/- per sample for FCS <p style="text-align: center;">-</p>	<ul style="list-style-type: none"> • Rs 2500/- per hour • Rs 500/- per sample for FRET • Rs. 500/- per sample for FRAP • Rs. 500/- per sample for FCS <p style="text-align: center;">-</p>	<p>FRET, FRAP and FCS functional. Contact AIRF before preparing/ submitting samples.</p> <p>This has a unique two- tiered, V shape optical design to accommodate a wide range of advanced research techniques giving bright images with minimal reflections or frame modifications. The IX71's modular frame and optical design provides nine access ports for multiple input or output devices. Up to four ports can have simultaneous access to a primary image. All the four ports are IR compatible.</p> <p>The camera system on this IX71 platform is DP71. It has special features:</p> <ol style="list-style-type: none"> 1. 1.45 megapixel high resolution (1360x1024 pixels) images displayed live at 15fps. 2. DP71's dedicated 2/3 inch CCD is cooled by a Peltier element to 10⁰C below ambient, ensuring high sensitivity, low noise image capture. 3. You can choose and apply settings easily according to the specimen and observation method and then capture images quickly.
<p>X-ray Diffraction (XRD) System for Powder- Thin Films with low temperature attachment</p> <p><i>FOR THIS FACILITY, PLEASE REFER TO USER INSTRUCTIONS NEWLY ADDED HERE.</i></p>	Rs. 100/- per sample	Rs 500/- per sample	Rs 1000/- per sample	<p>Sample should be crushed and brought in powder form.</p> <ul style="list-style-type: none"> • Maximum of 6 samples per requisition form will be accepted. • Maximum of one requisition form per user will be accepted in one single day. Subsequent requisition forms of the same user will be accepted for booking and analysis only after all other users booked for that day, have finished their analysis. • The maximum time for analysis of one sample is one hour. After every one hour, the same sample would be treated as a new sample and charged accordingly.
Liquid Nitrogen (LN₂)	Rs. 10/- per litre	Rs. 20/- per litre	Rs. 50/- per litre	Contact AIRF.

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X-ray Diffractometer (XRD) - for Macromolecules & Protein Crystallography	Rs 500/- per sample	Rs 1000/- per sample	Rs 2000/- per sample	Patterns and convolutions would be given. Contact AIRF before preparing/submitting samples.
FTIR-Raman	<ul style="list-style-type: none"> Rs 100/- per sample for FTIR-Raman Rs 50/- per sample for FTIR Rs. 50/- per sample for Raman 	<ul style="list-style-type: none"> Rs 400/- per sample for FTIR-Raman Rs 200/- per sample for FTIR Rs. 200/- per sample for Raman 	<ul style="list-style-type: none"> Rs 1000/- per sample for FTIR-Raman Rs 500/- per sample for FTIR Rs. 500/- per sample for Raman 	Contact AIRF before preparing/submitting samples.
Energy Dispersive X-ray Fluorescence (EDXRF) Spectrometer	Rs. 200/- per sample	Rs. 400/- per sample	Rs. 1000/- per sample	Contact AIRF before preparing/submitting samples.
Wavelength Dispersive X-ray Fluorescence (WDXRF) Spectrometer	Rs. 200/- per sample	Rs. 400/- per sample	Rs. 1000/- per sample	Contact AIRF before preparing/submitting samples.
Circular Dichroism (CD) Spectrometer	Rs. 100/- per hr	Rs. 200/- per hr	Rs. 600/- per hr	Contact AIRF before preparing/submitting samples.
Stop Flow	Rs. 50/- per sample	Rs. 100/- per sample	Rs. 300 per sample	Contact AIRF before preparing/submitting samples.
Cell Sorter and Flow Cytometer	<ul style="list-style-type: none"> Rs. 20/- per sample for Flow cytometry (including the sheath fluid charges) Rs. 50/- per sample for Sorting 	<ul style="list-style-type: none"> Rs. 40/- per sample for Flow cytometry (including the sheath fluid charges) Rs. 100/- per sample for Sorting 	<ul style="list-style-type: none"> Rs. 100/- per sample for Flow cytometry (including the sheath fluid charges) Rs. 250/- per sample for Sorting 	Users will be provided the sheath fluid for their samples.
Time Resolved Fluorescence Spectrometer (TRFS)	Rs. 50/- per hour	Rs. 100/- per hour	Rs. 250/- per hour	Contact AIRF before preparing/submitting samples.
Gas Chromatograph Mass Spectrometer (GCMS)	<ul style="list-style-type: none"> Rs 75/- per sample for GC Rs 150/- per sample for MS Rs. 250/- per sample for GC-MS <p>Note:- For any additional fragmentation spectra extra charges of Rs. 20 per peak</p>	<ul style="list-style-type: none"> Rs 150/- per sample for GC Rs 300/- per sample for MS Rs. 500/- per sample for GC-MS <p>Note:- For any additional fragmentation spectra extra charges of Rs. 20 per peak</p>	<ul style="list-style-type: none"> Rs 500/- per sample for GC Rs 800/- per sample for MS Rs. 1200/- per sample for GC-MS <p>Note:- For any additional fragmentation spectra extra charges of Rs. 20 per peak</p>	<p>Out put to user- for GC = Peak separation profile + RT + Area.</p> <p>For GC-MS = peak separation profile + RT + Area + Base peak fragmentation profile.</p> <p>For any additional fragmentation spectra extra charges of Rs. 20 per peak.</p> <p>Conditions:-</p> <p>(a) User will provide detailed method protocol.</p> <p>(b) User will supply standards as per their requirement.</p> <p>(c) Interpretation of fragment spectra of MS is User's responsibility.</p>
Capillary Electrophoresis	Rs. 100/- per three samples	Rs. 200/- per three samples	Rs. 500/- per three samples	Contact AIRF before preparing/submitting samples.

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500 MHz Nuclear Magnetic Resonance (NMR) Spectrometer with solid state attachment (CP-MAS)				Contact AIRF before preparing/ submitting samples.
XRD Protein Crystallization Laboratory				Contact AIRF before preparing/ submitting samples.
Surface Plasmon Resonance (SPR) Spectrometer	Rs. 500/- per sample	1600/- per sample	Rs. 4000/- per sample	Contact AIRF before preparing/ submitting samples.

- All results would be given on a compact disc supplied by AIRF.
- # Analysis other than routine shall be charged extra.
- ** AIRF will not supply any software copies for offline analysis.
- *** The above rates are subject to revision from time to time.

Note: The facility timings are from 9.00 am to 5.30 pm. On Saturday and Sunday and Government Holidays, the Facility is closed.

- **The Requisition forms for the users can be downloaded from the AIRF site or can be collected from AIRF Office.**
- For the users within JNU, the duly filled forms must be signed by the Supervisor and submitted at the office for the booking of the user slot for equipment.
- **The requisition forms from users outside JNU must be signed by concerned officials and submitted in person during sample analysis or by mail/ post/ courier along with the cheque/ Demand Draft drawn in favour of “ The Finance Officer - JNU “ payable at New Delhi for the amount calculated as per user charges given above for all samples/ analysis. Users coming from outside JNU and other stations may reconfirm the availability of time slots in advance just before coming.**
- The users shall be allotted the time slots as per the availability.
- **All users are required to acknowledge the use of AIRF equipments/ AIRF facilities and the person(s) providing the technical help in all their research publications/ articles resulting from the use of AIRF. A copy of such publication must be submitted to AIRF for reference and record.**