

**Electron Microscopy and Nanoscience Laboratory**  
**College of Agriculture**  
**Punjab Agricultural University, Ludhiana**

Revised Charges (in Rupees) for sample analysis

1	2	3	4	5	6	7	8	9
Sr. No.	Instrument	Job	Charges for PAU Students (Without financial aid)	Charges for students (without financial aid) from Government educational institutes*	Charges for PAU Departments (PAU Students with fellowship)	Charges for Government ( Institutions, Departments, Boards, Corporations, Charitable Organizations including GADVASU)*	Private institutions, Organizations, Hospitals, Corporate Houses, Industry and others.*	Charges for students (without financial aid) from Private educational Institutions*
1.	Scanning Electron Microscope(SEM)	Involving CPD and sputter coating	500	1000	2000	3000	4500	2000
		Without CPD and sputter coating	425	850	1200	2500	3500	1700
2.	Energy Dispersive Spectroscopy (SEM-EDS)	SEM+spectra	700	1400	2500	4000	5000	2800
		SEM+Point&Shoot	1000	2000	3000	4500	5500	3000
		SEM+X-Ray Mapping	1250	2500	3500	5000	6000	4000
3.	Transmission Electron Microscopy (TEM)	with Ultramicrotomy	750	1500	2500	4000	6000	3000
		Without Ultramicrotomy	500	1000	1500	2500	4000	2000
4.	Atomic Force Microscopy (AFM) CP-II		500	1000	3000	5000	7000	2000
5.	Fluorescence Microscopy	Viewing of prepared slides only	500 per hour	600 per hour	800 per hour	1000 per hour	1500 per hour	1000 per hour
6.	FTIR NXT Raman Spectrophotometer	IR Spectroscopy	200	300	400	500	1000	600
		Raman Spectroscopy	300	400	500	700	1500	800
		Both IR and Raman Spectroscopy	500	600	800	1100	2500	1200
7.	Stereo Zoom optical microscopy/ LED illumination Macro viewer		50	100	150	200	300	200
8.	Bright field, dark field and phase contrast optical microscope	Viewing of prepared slides only	50	100	150	200	300	200

\* The charges do not include Service taxes. The user will have to pay Service Taxes as per government rules.

## Terms and Conditions

1. The facilities are open on working days (Monday through Friday) between 9:00 to 17:00 Hrs. only.
2. The Requisition form can be downloaded from the <www.pau.edu> site. Alternatively, it can be collected from EMN Lab. The request for sample analysis may be made in advance at "Services -EMN Lab" <[services-emnl@pau.edu](mailto:services-emnl@pau.edu)>". Each requisition form must be signed by the advisor/ scheme-in-charge and Head of the Institute (in case of users from PAU) or, Head of the Department (for users from institutes other than PAU).
3. The requisition forms from users outside PAU 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 Comptroller, Punjab Agricultural University, Ludhiana" and payable at Ludhiana.
4. The prior approval of Director EMN Lab is must for booking time slot for sample evaluation and making the payments. The time slot will be fixed depending on the backlog in the lab.
5. The students from government institutions who want to avail subsidised charges as per column no 5 of the charges table must provide a self declaration stating that he/she is not the recipient of any fellowship/ scholarship verified by his/her major advisor as well as head of the department.
6. EMN lab accepts samples processed by users at their own end otherwise samples can be processed by the users at EMN Laboratory (chemicals, glassware and disposables provided) and are charged accordingly.
7. Analysis other than routine shall be charged extra as per discretion of the Director, EMN Lab.
8. All results would be given on a compact disc supplied by EMN Lab. A maximum of five images per sample will be provided. Replications will be considered only in case of unsatisfactory images which are due to instrument defects only. Replication of defective images due to poor processing by the user will be treated as additional sample and will be charged accordingly.
9. EMN Lab will not supply any software copies for offline analysis.
10. It is mandatory for all users to acknowledge the use of EMN Lab, PAU equipments/ facilities and the person(s) providing the technical help in all their research publications/ articles/ patents/ thesis/ report resulting from the use of EMN Lab, PAU facilities. A copy of such publication etc. must be submitted to the EMN Lab, PAU for reference and record. Wherever, a faculty member has contributed intellectually, his/ her name must be included as one of the author in publications and claim included in Patents, arising out of the work.
11. The data, micrographs and spectra provided are only for research/ development purposes. These cannot be used as certificates in legal disputes.
12. It is mandatory for the users to declare the nature and composition of the materials. Unstable, explosive, radioactive and hazardous materials are not accepted for analysis. In case of any accident/ mishap, user is liable to bear the financial liability on the account of any damage incurred.
13. No services are normally provided for interpretation of photomicrographs and spectra. If the intellectual help is provided by the faculty members, who have contributed intellectually, they must be given authorship in publications, arising out of the work.