

**Department of Botanical and Environmental Sciences  
GNDU, Amritsar.**

**(SHIMADZU ATR-FTIR/ IR-MICROSCOPE)  
Request form for ATR-FTIR/ IR-MICROSCOPE SPECTRAL DATA**

Date:

Name of user:

Designation:

Name of the Department:

Name of the Supervisor:

Spectral recording options: ATR/KBr disc/Microscope

Sample Codes	Solubility	Expected functional Gps	Spectral Range
1) .....	1.....	1.....	1.....
2) .....	2.....	2.....	2.....
3) .....	3.....	3.....	3.....
4) .....	4.....	4.....	4.....
5) .....	5.....	5.....	5.....

Signature of the user

Signature of Supervisor

Signature of the In-charge FTIR facility

**Emerging Life Sciences**  
Guru Nanak Dev University, Amritsar-143005, India

**Sample submission form for Nuclear Magnetic Resonance (NMR)**

1. Sample Code: \_\_\_\_\_
2. Name of the Institution/University/College/ Industry: \_\_\_\_\_
3. Spectrophotometer frequency (400 or 500 MHz): \_\_\_\_\_
4. NMR Experiment ( $^1\text{H}$ ,  $^{13}\text{C}$ , DEPT, COSY, etc): \_\_\_\_\_
5. Preferred date and Timing: \_\_\_\_\_
6. Solvent: \_\_\_\_\_
7. Concentrations (mg/ml): \_\_\_\_\_
8. Temperature: \_\_\_\_\_

**Mode of Payment**

(i) For samples outside the GNDU campus: Payment can be made in the form of DD drawn in favour of Registrar, Guru Nanak Dev University, payable at Amritsar. (ii) For in-campus samples; Payment will be received in cash in the office of Emerging Life Sciences and a receipt will be given. (iii) GST = 18% extra for outside samples.

For the NMR users under category (ii): time slot will be allotted every week and the machine will be operated by the group member/s who are trained for operating NMR spectrometer.

**Emerging Life Sciences**  
Guru Nanak Dev University, Amritsar-143005, India  
**Real Time-PCR**

Date.....

**Concerned Department:**

**Concerned Supervisor:**

**Signature of the Supervisor:**

**Name of the Student:**

**Signature of the Student**

**Date of Experiment:**

**Time of Experiment:**

**Detection Method:**      SYBR Green ( )      TaqMan ( )

**Number of Samples:**

**RT-PCR Teacher Incharge**

**Emerging Life Sciences**  
Guru Nanak Dev University, Amritsar-143005, India  
**Sample Submission Form for BET Analysis**

Date:.....

S. No.	Sample	Submitted	Signature of Supervisor	Remarks

1. Degassing temperature:
2. Type of Analysis: Physisorption/Chemisorption
3. Analysis Required: (please tick the appropriate one from the following)

Isotherm	BET Surface Area	Langmuir Surface Area	Freundlich surface Area
t-plot	Tamkin Surface Area	BJH Adsorption	BJH Desorption
Harvath-Kawazae Ananalysis	DFT Pore Size		

4. Use of Filler rod in Sample tube: Yes/No
5. Seal Frit Required: Yes/No
6. Gas to be used for study: At present, we are using N<sub>2</sub> for adsorption and desorption

**Note:**

- a. Only one sample can be submitted at one time. After the analysis of first sample, next sample can be submitted.
- b. Chemisorption facility is available but yet to be installed.
- c. Before submitting the sample evacuate your sample at 80-90 °C for about 10 hours or at ambient temperature for 24 hours if sample is not stable at higher temperatures.
- d. Sample must be stable at degassing temperature.

**Emerging Life Sciences**  
Guru Nanak Dev University, Amritsar-143005, India  
**Requisition form for particle Size and Zeta potential**

Date.....

Name of student .....

Name of supervisor .....

Name of samples .....

Sample state .....

Amount of sample .....

Solvent used .....

Sample  
Code


**Signature of supervisor**

**Signature of student**

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(For office use only)

Sample received on.....

Sample analyzed on.....

Reference No.....

**Signature of office in charge**

**Signature of instrument in charge**

**Emerging Life Sciences**  
Guru Nanak Dev University, Amritsar-143005, India  
**Requisition form for Spray drying**

Date.....

Name of student .....

Name of supervisor .....

Name of samples .....

Sample code .....

Sample state .....

Amount of sample .....

Solvent used .....

% Solid content .....

Spray drying parameters .....

**Signature of supervisor**

**Signature of student**

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For office use only

Sample received on.....

Sample analyzed on.....

Reference No.....

**Signature of office in charge**

**Signature of instrument in charge**

**Emerging Life Sciences**  
Guru Nanak Dev University, Amritsar-143005, India  
**Requisition form for Rheometer**

Date.....

Name of student .....

Name of supervisor .....

Name of samples .....

Sample state .....

Amount of sample .....

Solvent used .....

Parameters to perform .....

Sample  
Code


**Signature of supervisor**

**Signature of student**

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For office use only

Sample received on.....

Sample analyzed on.....

Reference No.....

**Signature of office in charge**

**Signature of instrument in charge**

**Emerging Life Sciences**  
Guru Nanak Dev University, Amritsar-143005, India  
**Requisition form for HPLC**

Date.....

Name of student .....

Name of supervisor .....

Name of samples .....

Sample state .....

Amount of sample .....

Solvent for sample preparation.....

HPLC Parameters .....

a) Flow rate .....

b) Wavelength .....

c) Column .....

d) Mobile phase .....

Sample Code


**Signature of supervisor**

**Signature of student**

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For office use only

Sample received on.....

Sample analyzed on.....

Reference No.....

**Signature of office in charge**

**Signature of instrument in charge**



**Emerging Life Sciences**  
Guru Nanak Dev University, Amritsar-143005, India  
**Requisition form for Metal/Heavy metal analysis for Internal Users of GNDU**  
**Atomic Absorption Spectrophotometer**

Date.....

Name\_\_\_\_\_

GNDU Regd. No.\_\_\_\_\_

Department\_\_\_\_\_

Contact No. (O)\_\_\_\_\_ Mobile No.\_\_\_\_\_

Email\_\_\_\_\_

Nature of sample

Number of samples

pH range of samples

Name of element to be analysed

AAS only		AAS with graphite furnace		AAS with hydride Vapour generation	
Type of Fuel gases required					
Acetylene + Air		Acetylene + Nitrous oxide		Argon + Acetylene/Nitrous oxide	

Name of Supervisor

\_\_\_\_\_  
(Signature of Requisitioner)

\_\_\_\_\_  
(Signature of Supervisor)

\_\_\_\_\_  
(Signature of Head of Department)

Date of submission of requisition form

Tentative date for analysis of samples

**Note:**

- The samples should be properly filtered at least using *Whatman* filter paper No. 1.
- The pH of the samples should not be less than 5.
- The samples having concentration more than 5ppm will require dilution.
- Please bring Fresh CD only for collection of results. Used CD or Pen drives will not be accepted.
- List of elements include Ag, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Na, Zn.
- Only one element for 25 samples will be analyzed per requisition form.
- Separate requisition form should be filled after every 25 samples.

**Emerging Life Sciences**  
Guru Nanak Dev University, Amritsar-143005, India  
**Requisition Form for use of Confocal Facility**

Date.....

Name:.....

Designation:.....

Address:.....

.....

Tel/Mobile no:.....Email.....

User Category:      GNDU      Other Govt.      Industry/Private  
(Tick)                              Institutions

Date of Usage:.....Number of samples.....

Type of Sample:.....

Nature of service required

1. Sample imaging
2. FRAP
3. Live Cell Imaging
4. FRET

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 by GNDU equipments.

Requisition made By:

Recommended By  
(Head/Principal Investigator)

Permitted for Use:

(Professor In-charge)

(Dean Faculty of Life Sciences)

Date of submission of requisition

For Office Use Only:

S. No. \_\_\_\_\_

Date: \_\_\_\_\_

Signature of Instrument Operator

**Emerging Life Sciences**  
Guru Nanak Dev University, Amritsar-143005, India  
**Requisition Form for use of Scanning Electron Microscope Facility**

Date.....

Name:.....

Designation:.....

Address:.....

.....

Tel/Mobile no:.....

Email:.....

Number of Samples:.....

Type of Sample:.....

Nature of service required:.....

**Undertaking**

I/we undertake to abide by the safety and sample preparation guidelines and precautions during imaging of my samples. I/we shall not claim for any damage/harm to my/our samples submitted for the analysis.

Requisition made By:

Recommended By  
(Head/Principal Investigator)

Permitted for Use:

(Professor In-charge)  
Scanning Electron Microscope for Life Sciences

(Dean Faculty of Life Sciences)

Date of submission of requisition:

Date/Time of Usage

For Office Use Only:

S. No. \_\_\_\_\_

Date: \_\_\_\_\_

Signature of Operator Incharge

**Emerging Life Sciences**  
Guru Nanak Dev University, Amritsar-143005, India  
**Requisition form for Semi Prep HPLC**

Date.....

Name \_\_\_\_\_  
Department \_\_\_\_\_  
Contact No. (O) \_\_\_\_\_ Mobile No. \_\_\_\_\_  
Email \_\_\_\_\_

Sample Name/ID/Code \_\_\_\_\_

Nature of Compound \_\_\_\_\_

- If solid, quantity and recommend solvent \_\_\_\_\_
- If liquid, Concentration and solvent (incl. Buffer, salt etc.,) \_\_\_\_\_
- \_\_\_\_\_
- Storage conditions \_\_\_\_\_
- Safety remarks:      Toxic      Non Toxic      Biological Hazardous
- Mention compatible chromatographic conditions for UPLC analysis: \_\_\_\_\_  
\_\_\_\_\_

Aim of analysis: \_\_\_\_\_

\_\_\_\_\_  
(Signature of Supervisor)

\_\_\_\_\_  
(Signature of Requisitioner)

\_\_\_\_\_  
(Signature of Head of  
Department)

**Note:**

- The samples should be properly filtered at least using 0.2 $\mu$  filters.
- Please bring Fresh CD only for collection of results. Used CD or Pen drives will not be accepted.

**Emerging Life Sciences**  
Guru Nanak Dev University, Amritsar-143005, India  
**Requisition form for Renishaw micro-Raman Spectrometer**

Date.....

1. Name of User .....  
i. Phone:.....  
ii. E-mail:.....
2. Research Supervisor :.....
3. Category :Ph.D/ M.Phill/M.Sc./Post Doc. Research
4. Department :.....
5. University/Institution :.....
6. Wavelength used :.....
7. Wavenumber Range :.....
8. Type of Samples : Powder/Liquid/Film on substrate/Polymer/Gel
9. Nature of Sample : Explosive/Toxic/Light-Heat-Air Sensitive
10. Sample Description :.....
11. No. of Samples :.....(Maximum no. of Samples is 6)
12. Sample codes
- |  |  |  |  |  |  |
|--|--|--|--|--|--|
|  |  |  |  |  |  |
|  |  |  |  |  |  |

Signature of Research Supervisor

Signature of Student

Signature of Instrument In-charge

For Office Use Only

Sample Received .....

Sample Analyzed on.....

Reference No.....

Signature Lab In-charge

**Emerging Life Sciences**  
Guru Nanak Dev University, Amritsar-143005, India  
**Requisition form for XRD Facility**

Date.....

1. Name of User :.....  
i. Phone:.....  
ii. E-mail:.....
2. Research Supervisor :.....
3. Category :Ph.D/ M.Phill/M.Sc./Post Doc. Research
4. Department :.....
5. University/Institution :.....
6. Angle Range :.....
7. Type of Samples : Powder/Liquid/Film on substrate/Polymer/Gel
8. Nature of Sample : Explosive/Toxic/Light-Heat-Air Sensitive
9. Sample Description :.....
10. No. of Samples :.....
11. Sample codes


Signature of Research Supervisor Signature of Student  
The Above Samples may be accepted on behalf of our Department/Institution

Head of the Department

\_\_\_\_\_

For Office Use Only

Sample Received .....

Sample Analyzed on.....

Reference No.....

Signature Lab In-charge

**Emerging Life Sciences**  
Guru Nanak Dev University, Amritsar-143005, India  
**Transmission Electron Microscope (TEM)**

Date.....

User Name/Contact/e-mail :.....

Research Supervisor :.....

University/Institute/Dept. :.....

Sample Details : (Please tick whichever is applicable)

No. of Samples (Max. 2)	:			
Morphology & size expected	:			
Sample is	: Magnetic	Nonmagnetic	Biological	
Sample is	: Hazardous	Non-Hazardous		
Sample is	: Conducting	Non-Conducting		
Nature of Sample	: Powder	Dispersion	Film	
Medium for dispersion	: Ethanol	Methanol	Water	Iso-propyl alcohol
Signature of Research Supervisor	Acetone	Toluene	other (mention)	
Personal Appointment (You would like to attend)	: Yes	No	Signature of Student	

Signature of Research Supervisor

Signature of Student

**For Office Use Only**

Signature of Instrument Incharge

Sample Received on.....

Sample Analyzed on.....

Reference No.....

Signature Lab in-charge

**NOTE:**

Please bring your own CD for taking the data  
Samples must be mounted on a grid

**Emerging Life Sciences**  
Guru Nanak Dev University, Amritsar-143005, India  
**Requisition form for Isothermal Titration Calorimetry**

Date.....

Name:

Department:

Contact No:

Email:

Sample name/ID/Code:

i)

ii)

Aim of analysis:

.....

(Signature of supervisor)

.....

(Signature of Requisitioner)

.....

(Signature of Head of Department)

**Notes:**

- i) Syringe concentration should be less than 500mM.
- ii) Samples should not precipitate during titration.
- iii) Do not use organic solvents.
- iv) Concentrations of protein solutions should be less than 150  $\mu$ M.



**Emerging Life Sciences**  
Guru Nanak Dev University, Amritsar-143005, India  
**Requisition form for Amino Acid Analyzer**

Date.....

**Name**\_\_\_\_\_

**Department**\_\_\_\_\_

**Contact No. (O)**\_\_\_\_\_ **Mobile No.**\_\_\_\_\_

**Email**\_\_\_\_\_

**Sample Name/ID/Code**\_\_\_\_\_

**Nature of Compound**\_\_\_\_\_

- If solid, quantity and recommend solvent\_\_\_\_\_
- If liquid, Concentration and solvent (incl. Buffer, salt etc.,)\_\_\_\_\_  
\_\_\_\_\_
- Storage conditions\_\_\_\_\_
- Safety remarks:        Toxic        Non Toxic        Biological Hazardous
- Mention compatible chromatographic conditions for UPLC analysis:\_\_\_\_\_  
\_\_\_\_\_

**Aim of analysis:**\_\_\_\_\_

\_\_\_\_\_  
(Signature of Supervisor)

\_\_\_\_\_  
(Signature of Requisitioner)

\_\_\_\_\_  
(Signature of Head of Department)

**Note:**

- The samples should be properly filtered at least using 0.2 $\mu$  filters.
- Please bring Fresh CD only for collection of results. Used CD or Pen drives will not be accepted.

**Emerging Life Sciences**  
Guru Nanak Dev University, Amritsar-143005, India  
**Requisition form for Microsense-VSM Facility**

Date.....

**Name of Student** : \_\_\_\_\_

**Sample Code** : \_\_\_\_\_

**Physical state of samples** : \_\_\_\_\_

**Magnetic field range** : \_\_\_\_\_

**No. of samples** : \_\_\_\_\_

**Signature of Supervisor**

**Signature of Incharge of VSM**

**Note:** Please submit only two samples with each request form

**Emerging Life Sciences**  
Guru Nanak Dev University, Amritsar-143005, India  
**Requisition form for DLS Analysis**

Date.....

S. No.	Sample Code	Submitted By	Supervisor	Email ID
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1. Temperature of Measurement:
2. Type of the Sample:
3. Solvent Used:
4. Viscosity and refractive index of the sample:
5. Analysis Required: Size/ Molecular weight/ Zeta potential
6. Scattering angle: 13° forward scattering/ 173° back scattering

Signature of Supervisor

Signature of Instrument Incharge

**Note:**

- a. Before submitting the sample, depending on your expectations of result, please filter the sample solutions either with 0.2 micron or 0.45 micron membrane filter if necessary.

[illegible]