

SoS in Physics and Astrophysics  
Pt. Ravishankar Shukla University, Raipur (C.G.)  
Facility Available

## X-Ray Diffraction (XRD)



- **Table Top Model: D2 Phaser Model: 08 discover, Bruker**
- **2 $\theta$  Range:** 10° to 90°
- Powder sample Holder



# SoS in Physics and Astrophysics

## Pt. Ravishankar Shukla University, Raipur (C.G.)

### Facility use request form

Name:

Supervisor:

Research Centre:

E-mail:

Date of Submission:

Address:

#### Sample Information:

No. of Samples	Sample Name	Sample Code (for save the data)	Facility Required			
			XRD	FTIR	DSC	TGA

Required range:

(for XRD-  $2\theta$  and for DSC/TGA - temperature)

Indicate what is needed: Raw data only:\_\_\_\_\_ Analysis with possible unit cell\_\_\_\_\_

Sample disposition: Save and Return\_\_\_\_\_ Dispose of after analysis\_\_\_\_\_

Note: if the sample is not picked up within two weeks from the date of providing results, it will be discarded automatically.

#### Notes:

- After finding your sample suitable for XRD/FTIR/DSC/TGA study the requested work will be completed within two week from the date of submission if the instrument does not have an issue. Also if more than five samples are submitted from a supervisor on the same date it will take longer than Two week for considering your sample.
- The data regarding the analysis will be kept intact for maximum 15 days after the production of result. Later on those will be deleted.
- Fees for each analysis are given in fees structure.

Signature of candidate

Signature of Supervisor

### **Fees structure for Advance Research Laboratory Use.**

S. No.	Instrument Facility	Old Fees (Rs)	Revised Fees(Rs.)
01	X-Ray Diffraction(XRD)	500	500
02	Fourier Transform Infra Red (FTIR)	500	500
03	Differential Scanning Calorimetry (DSC) (Temp. -25 to 500 °C)	500	1000
04	Thermal Gravimetric Analysis (TGA) (Temp. 25 to 1100 °C)	500	600
05	Photoluminescence Study (PL) (Excitation and Emission Spectra)	100	200 (per excitation wavelength)
06	Mechanoluminescence Study (ML)	100	100
07	Thermoluminescence Study (TL)/ OSL Reader	100	600
08	Impedance Spectroscopy	100	100
09	Galvanostat (Potentiostat)	100	200
10	High Temperature Furnace Up to 1000 °C	100	500 (per slot)
11	High Temperature Furnace >1000 °C (Max. Limit 1500 °C)	200	700 (per slot)
12	High Temperature Furnace >1500 °C (Max. Limit 1700 °C)	400	1000 (per slot)

- 50 % discount will be offered to the students of PRSU other than Physics department.
- The students of SoS in Physics & Astrophysics are allowed to carry out analysis of 10 samples per month without any cost.