

# UNIVERSITY SCIENCE INSTRUMENTATION CENTRE BHARATHIDASAN UNIVERSITY

TIRUCHIRAPALLI- 620 024

## X-RAY PHOTOELECTRON SPECTROSCOPY (XPS) - REQUISITION FORM

	Date
Name	
Designation	
Address for communication	
Mobile Number	
E-Mail	
Nature of applicant	Internal (BDU) BDU- Affiliated External Academic Industry
Number of samples	
Nature of samples	Thin Film Pellet Powder Organic Inorganic
Sample property	Conductive Non-conductive Polymer  Semiconductor Others:
Type of Scan/ Measurements required	Survey Scan & Narrow Scan Depth profiling
(Survey & narrow scans are recommended)	Mapping
Elements to be identified	
Chemical Composition & Molecular Formula	

Analysis Details, if	any					
Payment Details						
Draft/URN No.	Name of the Bank		Date	Amount ₹ (Incl18% GST)		
Declaration:  • I declare that samples described above are non-hazardous nature and possess no threat to health and welfare of person handling the said samples.						
Signature of the applicant						
Forwarded & Recommended						
(Name & Signature of Research Supervisor) (With date & seal)  Note: Submit a fresh CD/DVD along with this application form for data collection.  Office use only						
Serial No	:	Date	of receipt of Sample	e :		
No of Samples	:	Date of	of analysis (Tentativ	re) :		
Date of completion	:					
Measurement mode	: XPS Survey& Narrow Scan XPS+ Mapping					
Depth profiling  Type of User : Internal- BDU BDU- Affiliated External Academic						
		ndustry				
Amount	: ₹					
Remarks:						

**XPS - Faculty In-Charge** 

 ${\bf Signature\ of\ the\ Coordinator\ -\ USIC}$ 

### **Instruction for users**

# X-RAY PHOTOELECTRON SPECTROSCOPY (XPS)

■ Duly filled Requisition form signed by their Research Supervisor and forwarded through the Head of the Department/ Head of the Institution. The form should be submitted to the USIC Coordinator along with the samples.

#### Sample requirements:

- 1. Solids/ Thin films : 8 mm<sup>2</sup> in size, with 2 mm thickness
- 2. Powders : a) Tightly packed pellets of 6 8 mm diameter with 2 mm thickness.
  - b) Powders / Nanomaterials pressed in Indium metal foil/ the ball is recommended. If sample preparation needed user may need to pay additionally for sample preparation and Indium metal foil. For sample preparation minimum 20 mg of powders needed.
- Samples should be dry and clean. Well-prepared neat, clean and vacuum compatible samples will be accepted for the measurements.
- **No Liquid samples, Moist samples, and Volatile samples** shall be entertained.
- ► Samples should be solid, not outgassing in nature and not degrade under high vacuum.
- ► Samples containing Na, K, S, P, F, Zn, Pb, Bi, I, Se, As, Te and Hg are not suitable for **Depth profile analysis.**
- XPS measurements cannot be done for samples containing lodine, Sulphur. However, Sulphur containing sample can be done if it is stable under vacuum.
- Submit a fresh CD/DVD along with the application form for data collection.
- **■** No pen drive shall be entertained.
- Provide essential details like Molecular formula, Composition, and Elements present.



Users are requested to acknowledge <u>USIC-BDU & RUSA 2.0</u>, <u>Bharathidasan University</u> for the publication of the work. Acknowledged papers should be sent to this office by e-mail (<u>usic@bdu.ac.in</u>).

#### Note:

- 1. Submit a fresh CD/DVD along with the application form for data collection.
- 2. Payment details should be furnished.