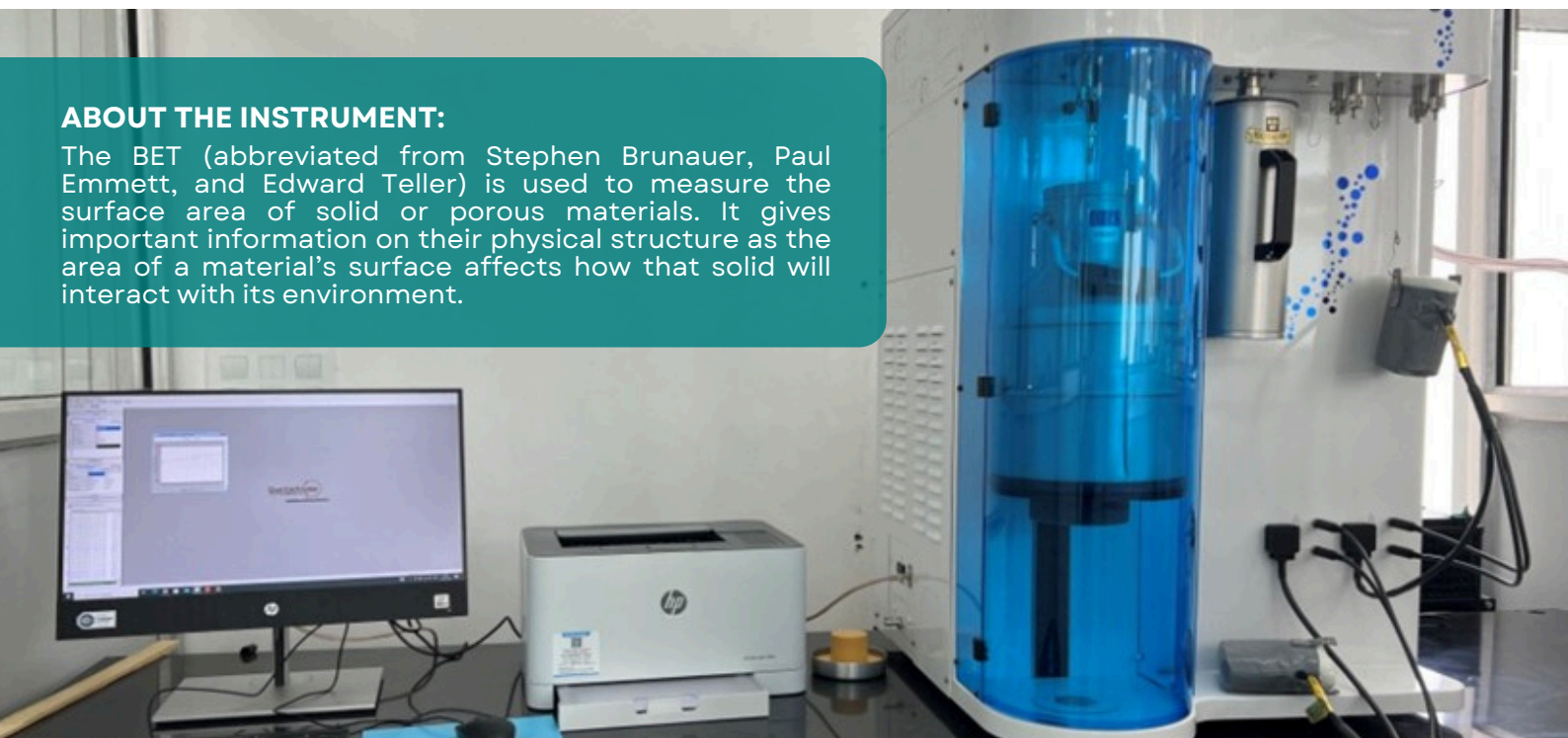


BRUNAUER-EMMETT-TELLER (BET) SURFACE AREA ANALYSIS

BET Surface Area Analyzer at CISIC Laboratory

ABOUT THE INSTRUMENT:

The BET (abbreviated from Stephen Brunauer, Paul Emmett, and Edward Teller) is used to measure the surface area of solid or porous materials. It gives important information on their physical structure as the area of a material's surface affects how that solid will interact with its environment.



Make: Anton Paar

Model: AUTOSORB iQ-XR

Year of Installation: 2024

THE INSTRUMENT:

The BET (abbreviated from Stephen Brunauer, Paul Emmett, and Edward Teller) is used to measure the surface area of solid or porous materials. It gives important information on their physical structure as the area of a material's surface affects how that solid will interact with its environment.

PRINCIPLE:

Using the BET theory, the true or specific surface area, (including surface irregularities and pore walls), of a particle is determined at an atomic level by adsorption of an unreactive gas. Because most gases and solids interact weakly, the solid material must be cooled, typically using a cryogenic liquid. The temperature of the solid sample is kept constant, or under isothermal conditions, while the pressure or concentration of the adsorbing gas is increased.

APPLICATIONS:

Knowledge of surface area is critical in various applications, including the production and processing of carbon, catalysts, organic materials, minerals, powdered metals, ferrites, batteries, and ceramics.

- BET surface area (single and/or multipoint)
- Langmuir surface area, adsorption and/or desorption isotherms, pore size and surface area distributions, micropore volume, and surface area

INSTRUCTIONS FOR USE:

- Form must be forwarded by the concerned authority to coordinator PURSE.
- For any query contact:
Email: purselehuol23@rediffmail.com
Mobile: +91 9704182356 / +91 7889314698
- Samples may be sent at the following address:
CISIC Lab, Leh campus, Taruthang, Taru, Leh, UT Ladakh -194101, India

		Charges for Analysis (per sample)						
		TYPES OF USER						
S.No	Type of Analysis	University of Ladakh				Others Universities*	R& D National Laboratory and other Organizations*	Industries*
		PG/UG Students for dissertation	Research Scholar		External Funded Project			
			Without Fellowship	With Fellowship				
1	BET only (7-point)	50	300	500	600	800	1000	1200
2	Mesopore (20-20 point)	100	500	800	1000	1200	1500	2000
3	Micropore (96 point)	100	600	1200	1500	2500	4000	5000

*Plus taxes as applicable

*All Prices are in INR (₹)

INSTRUCTION FOR PAYMENT:

The payment will be done in the following bank details for all the users

Name of A/C Holder	Project & Planning Cell - DRS
Bank A/C No	100227879103
Name of the Bank & Branch	IndusInd Bank (1581-Leh)
RTGS/IFSC code	INDB0001981
MICR code	194234002





UNIVERSITY OF LADAKH

PROMOTION OF UNIVERSITY RESEARCH AND SCIENTIFIC EXCELLENCE (DST-PURSE)

BET Surface Area Analyzer Facility at CISIC Laboratory

Sample Submission Form

Name of the User :
Address:
Date of Submission:
Email :
Mobile No:
Address:
Payment Details <ul style="list-style-type: none">• Total Amount:• Date and transaction of Payment :
Type of User: Please Tick <ul style="list-style-type: none">• University of Ladakh PG/UG student/ Research Scholar Without Scholarship/ Research Scholar With Scholarship/External Funded Project• Other Universities/ R&D National Laboratory/ Industries

Sample Information

Sample Code:

Number of Sample:

Sample Type: Powder/Pellet (Approx. 200mg-400mg, Fully Dry)

Sampling Handling Precautions: Hazardous/Non-Hazardous

Analysis Required:

Sample Degassing Condition:

a) Temperature (°C)-----

b) Rate (°C/min):-----

c) Soak Time (min): -----

*** Kindly acknowledge the DST-PURSE facility at all the Publications/Theses/Project reports/Conferences/papers, etc**

Signature of User

Signature and Seal of Forwarding Authority