

UNIVERSITY DEPARTMENT OF PHYSICS PATNA UNIVERSITY, PATNA

105 Years of Excellence

Inviting Quotation

Reference: Physics/62/2025

Date: 07/03/2025

University Department of Physics, Patna University, Patna desires to purchase the following items under the minor research project entitled " Investigation the role of substrate on the Synthesis and Characterization of CVD grown Layered 2D-Materials" sanctioned by Patna University to Dr. Sandeep Kumar Garg (PI), University Department of Physics, Patna University (the sanction letter memo no. 001/R&DC/RP/PU/Sanction (S.N. 08), dated 26/08/2023).

Subject: Inviting of scaled quotation to supply instrument/equipment for the minor research project in the University Department of Physics, Patna University, Patna.

SI. No.	Equipment Source Me- ter Unit (SMU) 4 Quadrent	Specifications		Quantity
1		Functionality	Should have capbility of: Voltage source, Current Source, 6.5 digit DMM(DC V, DC I, Ohm), Electronic Load, Battery Simulator and Pulse Generator Independent measurement of IV characteristic in 4- quadrant	01
		Output Power	20W	1
		Connector Type	The instrument should support operation from both the front and rear panels, with one side featuring a low-noise triaxial connection.	
		Voltage (Source and Sink) :		
		Range	±200mV to ±200V (4 selectable range or better)	1
		Lowest Resolution	1uV source resolution @ 200mV range , 100nV meas- urement Resolution @ ±200mV	
		Source Accuracy	0.015%+300µV @±200mV Range	1
		Measure Accuracy	0.015%+300µV @±200mV Range	1
		Current (Source and Measrue)]
		Range	±10nA to ±1.5A (should have at least 10 ranges)	
		Lowest Resolution	100fA source and 10fA measure @ ±10nA Range (Or Better)	
		Source Accuracy	0.1%+50pA	
		Measure Accuracy	0.1%+50pA	
		Resistance	Range : 2Ω to 200MΩ or Better	
		DC pulse	Should support a peak current of at least 0.1A at the maximum voltage range. Min. pulse width : 100us	

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Sweep Functiion	Std. Mode : linear and logarithmic modes, single and double sweep functions and con- stant and pulsed sweep operation. List Sweep Mode : any arbitrary waveform , support Excel Import or panel edit to generate sweep, upto 99,999 data point can be import
Display	Sinch touch screen with Graphical display and numeri- cal display, Should Support Scope View: Should allow to view Historical Waveform and table data over period of time. Support exporting to .csv for further analysis.
Multi-Channel Cas- cade	Should Supports Multi-ch. Expansion
Interface Ports	Built-in USB/LAN/
Front panel USB port	Front USB port used for data storage, screen capture, or test configuration
Battery Simulation Function	Should be Available
Data Memory ca- pacity	1 million points or better
GUARD (offset volt- age protection)	<1mV
Common Mode Isolation	>1GΩ. <4700pF
Operating tempera- ture	0~40°C
Warranty	1 Yr

For the above, quotations are invited from reputed firms by 17th March, 2025 by 5:00PM.

- You are requested to send quotation for the supply of the following items for subjects to the conditions below: 2. The equipment should be supplied within 10 days from the date of issue of purchasing order.

- 4. i) Condition of advance payment against documents upto 50% may be considered. And Payment 100% ii) Preferable mode of payment: Demand Draft of 100% amount would be made with the purchase order
- 5. Installation will be done at the customer site.
- 6. Warranty should be at least one years.

The quotations in the Sealed packed envelope should be sent to the address "Dr. Sandcep Kumar Garg (PI), University Department of Physics, Patna University, Ashok Rajpath, Patna - 800005."

Dr. Sandeep Kumar Garg (PI), CALOS)25 University Department of Physics, Patna University, Patna – 800005 Mobile No. 9238987888

HoD University Department of Physics, Patna University, Patna University, Patna

HEAD OF THE UNIVERSITY DEPADT