



सीएसआईआर - केन्द्रीय काँच एवं सिरामिक अनुसंधान संस्थान

196, राजा एस सी मल्लिक रोड, कोलकाता - 700 032, भारत

CSIR - CENTRAL GLASS & CERAMIC RESEARCH INSTITUTE

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CORRIGENDUM

REFERENCE NO. : - P/NC/66/AAR/DR(AK)/OTE/22-23/3280

DATE: 19/10/2022

NAME OF EQUIPMENT: "SUPPLY, INSTALLATION, COMMISSIONING, DEMONSTRATION & TRAINING OF THERMOELECTRIC PROPERTIES MEASURING SYSTEM"

NOTE: The Bids must be submitted in the Central Public Procurement Portal (URL: <https://etenders.gov.in/eprocure/app>) only. Manual/Offline bids shall not be accepted under any circumstances. Bidders should quote in INR only.

CONSEQUENT TO THE PRE-BID MEETING HELD ON 17/10/2022, THE REVISED SPECIFICATION IS GIVEN BELOW:-

Technical Specifications

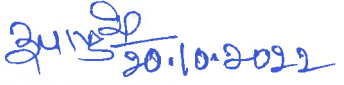
1	Temperature Range	-100 to 800 °C
2	Temperature Accuracy	±5 °C or better
3	Atmosphere	Oxidizing, Inert, reducing and Vacuum (~10 ⁻³ mbar or better)
4	Cooling System	Water cooling system
5	Measurement Range	
	(i) Seebeck Coefficient	10 μV/K to 2000 μV/K with accuracy ± 7% or better
	(ii) Electrical Conductivity	10 ⁻³ to 10 ⁵ S/cm with accuracy ±10% or better
6	Thermocouples	K/S/C/R type (depending on the temperature Range)
7	Sample Geometry and dimensional requirement	The system should have suitable sample (semiconductor, metals and ceramics.) holder(s) to hold samples of following shape and dimensions: 1. Square: 10 mm (l) (minimum) x 10 mm (w) (minimum) x 1 to 2 (t) mm (or) better 2. Circular: 10-15 mm (dia) and 1-2mm thick (or) better 3. Rectangular Bars: 6 to 14 mm (l) x 2-4 mm (w) x 2-4 mm (t) (or) better 4. Provision should be there for measuring thin films.
8	Data Analysis	Automatic measurement of the Seebeck coefficient and electrical conductivity. The supplier should upgrade the software as and when the upgradations become available for at least three years from installation.
9	Standard samples	Certified Standard samples need to be provided for calibrating the instrument.
10	Computer & Monitor	CPU Intel Core i5, 8 GB RAM, HDD 500 GB, GPU DirectX 9.0c compliant display adapter with 1GB RAM, monitor, printer, key board
11	Electrical Power	Suitable for Indian power supply conditions. Recommended 3 phase (400 V) connection if power consumption is more than 3 kW Suitable UPS for the complete system with 30 min power backup

12	Warranty	Comprehensive warranty for one year
13	Installation & Commissioning required	The party should install and commission the system at CSIR-CGCRI, Kolkata premises. The party should demonstrate the performance of the system at low and high temperature regions.
14	Training required	5 working days for 4 persons
15	Temperature Controller	PID Programmable temperature controller for temp control
16	Software	Latest version of software needs to be installed for control, operation and analysis. The supplier should upgrade the software as and when the upgradations become available for at least five years from installation. All measurements and analysis should be done through the software.
17	Chiller	Suitable Chiller unit
18	Vacuum pump	Suitable vacuum pump to reach the at least vacuum level of 10^{-3} mbar
19	Other necessary documents	The vendor should provide the list of supply of similar system for last three years along with contact details.

The above amendments shall amount to amendments of the relevant terms of our Bid Document for CGCRI Tender No. **P/NC/66/AAR/DR(AK)/OTE/22-23/3280 dated 10/10/2022.**

All other Tender terms and conditions remain unchanged.

Bidders should quote only in **INR**. Bidding is open to only Class I /Class II Local Bidders.


 (A. K. Pandey)
 Stores & Purchase Officer
 For & on Behalf of CSIR-CGCRI, Kolkata