

TATA INSTITUTE OF FUNDAMENTAL RESEARCH, HYDERABAD

An Autonomous Institution of the Department of Atomic Energy, Government of India (A Deemed University)

Plot No.36/P, Gopanpally Village, Serilingampally Mandal, Ranga Reddy District. Hyderabad, Telangana, India. PIN 500 107

, Phone: 040-20203020, Email: jrathna@tifrh.res.in

Limited
ENQUIRY

Ref: TIFR/PD/CM24-1173/241520

January 16, 2025

1. M/s. AIMIL LTD. INSTRUMENTATION AND TECHNOLOGY (ALIT)
2. M/s. COMTEK SCIENTIFIC INSTRUMENTS (COSI)
3. M/s. NEW AGE INSTRUMENTS & MATERIALS PVT. LTD. (NAIM)
4. M/s. SPECIALISE PRODUCTS PVT. LTD., (SPEL)

Dear Sirs

Please let us have your **Quotation** for the following:

S.No.	Item Code	Description	Qty	UOM
1	LMQDR000022	<p>Microchannel plate (MCP) detector, imaging type with the following features and specifications:</p> <ol style="list-style-type: none">1. Dual microchannel plate, chevron configuration, Imaging type2. Shape: Circular3. Active area: Approx 40 mm diameter4. Channel diameter: 12 microns5. Open Area ratio should be > 60% (higher values preferred)6. Gain: 1e6, at 1 kV per MCP7. Phosphor screen (P43 phosphor, 1 msec decay time, output colour: Green)8. MCP assembly should be mounted on a CF100 Flange9. All the vacuum side components should be compatible with Ultra high vacuum (UHV) environment (1e-10 mbar)10. The MCP assembly with the flange should be able to withstand a bake out temperature of 150 deg C11. A suitable UHV sealed viewport should be provided for readout of the phosphor screen12. Flange should have suitable SHV connectors for (a) Biasing the MCP (b) MCP signal readout terminal (c) Biasing the phosphor screen13. SHV connectors will should preferably be in radially outward direction for compatibility with existing camera mount system. Other designs will be considered based on the design compatibility.14. Spatial resolution: Better than 100 microns15. Warranty: minimum 1 year	1.00	NO

Application:
We will be using this MCP for position sensitive charged particle detection for ion imaging experiments.

These measurements will be working typically at 10 Hz repetition rate and ion detection will be carried out in accumulation mode (not single particle counting mode)

Note 1:
Currently we are using 'Hamamatsu F2225-21P' MCP system. We are looking for a suitable replacement with equivalent specifications and features.

Note 2:
In order to assess the compatibility of the detector with the existing experimental setup, the vendor should provide the following information along with their bids:

- a) All the relevant technical information including the datasheet
- b) Design drawings with properly labelled dimensions and mentioning the type of connectors used in the detector assembly
- c) A point wise comparison with the required specifications/features listed above.

LMQDR000022 d) A detailed test report of the detector should be provided at the time of shipping



NOTE :

Please submit the quotation as per specifications along with local content certificate as per Annexure - A.

Please mention your GST Registration numbers on the quotation, proforma Invoice and Bills.

Quotation should indicate make, delivery period, guarantee/warranty exact taxes applicable, etc.

The payment will be made only after delivery of the supply, satisfactory installation, commissioning and performance of the item/equipment. No Advance payment will be made except in case of furnishing valid Bank Guarantee from any nationalized/scheduled bank the B. G. shall be valid till the complete delivery is made at the site.

Time is the essence of the contract. The delivery of Goods or performance of the Services shall be made by the Supplier in accordance with the time schedule specified in the Purchase Order/Contract.

If the Supplier fails to deliver any or all of the Goods or to perform services within the period(s) specified in the Purchase Order/Contract, the Purchaser shall, without prejudice to other remedies under the Contract, deduct from the Contract Price, as penalty, a sum equivalent to 0.5% per week and the maximum deduction is 5% of the contract price.

Quotation sent by hand delivery / courier are to be deposited in the Tender Box kept at the Main Gate after obtaining stamp, date and signature of the Security Officer.

Quotation should be submitted in sealed envelope duly superscribing our enquiry reference and due date.

Due Date for submitting your offer is 05/02/2025.

Yours faithfully



J.RATHNA

Administrative Officer (D)

Copy to: Prof. / Dr. / Mr. / Mrs. / Ms. / Shri / Smt. PRANAV R SHIRHATTI (TCIS-19P2124)
Your Indent Req. No.PRS0220243 Dated:13/01/2025 refers.

Ref no : TIFR/PD/CM24-1173/241520

Sr. No.	Item Description	Qty.	UOM	Rate per unit	Item wise GST %	Total Cost including GST (In INR)
1	<p>Microchannel plate (MCP) detector, imaging type with the following features and specifications:</p> <ol style="list-style-type: none"> 1. Dual microchannel plate, chevron configuration, Imaging type 2. Shape: Circular 3. Active area: Approx 40 mm diameter 4. Channel diameter: 12 microns 5. Open Area ratio should be > 60% (higher values preferred) 6. Gain: 1e6, at 1 kV per MCP 7. Phosphor screen (P43 phosphor, 1 msec decay time, output colour: Green) 8. MCP assembly should be mounted on a CF100 Flange 9. All the vacuum side components should be compatible with Ultra high vacuum (UHV) environment (1e-10 mbar) 10. The MCP assembly with the flange should be able to withstand a bake out temperature of 150 deg C 11. A suitable UHV sealed viewport should be provided for readout of the phosphor screen 12. Flange should have suitable SHV connectors for (a) Biasing the MCP (b) MCP signal readout terminal (c) Biasing the phosphor screen 13. SHV connectors will should preferably be in radially outward direction for compatibility with existing camera mount system. Other designs will be considered based on the design compatibility. 14. Spatial resolution: Better than 100 microns 15. Warranty: minimum 1 year <p>Application: We will be using this MCP for position sensitive charged particle detection for ion imaging experiments.</p> <p>These measurements will be working typically at 10 Hz repetition rate and ion detection will be carried out in accumulation mode (not single particle counting mode)</p>	1	NO			

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Sr. No.	Item Description	Qty.	UOM	Rate per unit	Item wise GST %	Total Cost including GST (In INR)
	Total					
	Freight/Transportation charges, if any					
	Service/Labour charges, if any					
	Any Other charges					
	Final Total in figures					
	Final total in words					



Annexure - A

Certificate for Local Content

*We [name of manufacturer] hereby confirm in respect of quoted item(s) that Local Content is equal to or more than 50% and come under 'Class-I Local Supplier' Category. As being 'Class-I Local Supplier', we are eligible for Purchase Preference under 'Make in India' Policy vide Gol Order No.P-45021/2/2017-PP (B.E.-II) dated 15.06.2017 (subsequently revised vide orders dated 28.05.2018, 29.05.2019 and 04.06.2020)

OR

*We [name of manufacturer] hereby confirm in respect of quoted items(s) that Local Content is more than 20% but less than 50% and come under 'Class-II Local Supplier' Category.

The details of the location (s) at which the local value addition made is /are as under:

1.
2.
3.

*Strike out whichever is not applicable

Date:

Seal & Signature of the Bidder

NOTE:

- Self-certification that the item offered meets the minimum local content (as above) giving details of the location(s) at which the local value addition is made in case the bidder wishes to avail the benefits under the make in India policy, if applicable.
- In cases of procurement for a value in excess of Rs. 10 crores, the local supplier shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content to avail the benefits under the make in India policy, if applicable.

1. Introduction

2. Methodology

The study was conducted using a mixed-methods approach, combining quantitative data analysis with qualitative interviews. The quantitative data was collected through a survey of 500 participants, while the qualitative data was gathered from 15 in-depth interviews with experts in the field. The survey data was analyzed using statistical software, and the interview data was analyzed using thematic analysis. The results of the survey and interviews are presented in the following sections.

The findings of this study indicate that there is a significant correlation between the variables studied. The results suggest that the factors identified in the study have a positive impact on the outcome measured. These findings are consistent with previous research in the area and provide new insights into the relationship between the variables.

In conclusion, the study has provided valuable insights into the relationship between the variables studied. The findings suggest that the factors identified in the study have a positive impact on the outcome measured. These findings are consistent with previous research in the area and provide new insights into the relationship between the variables.