



भारतीय प्रौद्योगिकी संस्थान इंदौर  
खण्डवा रोड, सिमरोल, इंदौर - 453 552, भारत  
**Indian Institute of Technology Indore**  
Khandwa Road, Simrol, Indore - 453 552, India

www.iiti.ac.in

IIT Indore

NIT No.: IITI(MM)/SIC/1/1A/452/DAB/2024-25

Date - 07/02/2025

### PREBID REPORT

The online meeting for Pre-bid discussion and presentation was held via Google Meet on Jan 27, 2025 @ 04:00 P.M. at IIT Indore for Procurement of Carbon Coater through **CPP Portal, Tender ID- 2025\_IITI\_845135\_1**.

The report of the meeting is as below:-

Sl. No	Firm Name	Reference Document	Query Raised/Suggestions	Response/ Clarification from IITI
a	M/s. Mascotek Scientific Private Limited	Specifications and optional S.No-1, Page No.21	A suitable oil free (turbo molecular) Carbon sputter coater for TEM sample preparation application, 1. Borosilicate glass chamber with 150 mm or more internal diameter. 2. Capacitive touch colour display with touch screen interface. 3. Carbon rod evaporation technique to produce high quality carbon coating over the sample surface. 4. At least 2 sets of carbon CORD and ROD to be provided. 5. Rotation stage diameter - 50 mm with planetary motion. 6. The coating system should include rotary and turbo molecular pump suitable to attain ultimate vacuum range $10^{-5}$ mbar or better. 7. Sputter current range 0-150 mA with built in timer. 8. Status indicator to identify the status of the instrument.	A suitable oil free (turbo molecular) Carbon sputter coater for TEM sample preparation application, 1. Borosilicate glass chamber with 150 mm or more internal diameter. 2. Capacitive touch colour display with touch screen interface. 3. Carbon rod evaporation technique to produce high quality carbon coating over the sample surface. 4. At least 2 sets of carbon CORD and ROD to be provided. 5. Rotation stage diameter - 50 mm with planetary motion. 6. The coating system should include rotary and turbo molecular pump suitable to attain ultimate vacuum range $10^{-5}$ mbar or better. 7. Sputter current range 0-150 mA with built in timer. 8. Status indicator to identify the status of the instrument.

उप कुलसचिव  
(सामग्री प्रबंधन विभाग)

Deputy Registrar  
(Materials Management Section)

*(Signature)*  
07.2.25

b	M/s. Mascotek Scientific Private Limited	1. Specifications and optional: g) Sputter current range 0-150 mA with built in timer.	<p>Sputter current of 150mA mentioned is very high and would lead to much higher sputter yield especially for gold. We therefore suggest limiting the range to 100mA. Of course, Nickel being a magnetic material and leading to reduced magnetic flux over the Nickel target, we also suggest to use thinner nickel targets of 0.1mm instead of 0.3mm asked in the tender. Of course, if you require, we can always offer you three 0.1mm Nickel targets.</p> <p>In fact, it would also make sense to have three different targets of gold and platinum of 0.1mm thickness each as well. The reason for this is if you use 0.3mm target, as the targets get consumed, it leads to racetrack pinched profile thereby leading to nonuniformity of coating as the targets get consumed more than 50%. It would be therefore advisable to use three targets of 0.1mm thickness and we can quote you three sets of Gold, Platinum and Nickel targets of 0.1mm thickness each. This will help in having better sputter deposition yield.</p>	<p>Among the Carbon Coater specifications, the sputter current in the range of 0-150 mA was mentioned. If the vendor's equipment sputter current falls within this range, it will be considered as technically qualified.</p> <p>Further, the Au/Pt/Ni target dimensions "57 mm x 0.3 mm thickness" will be removed from the specifications.</p>
c	M/s. Mascotek Scientific Private Limited		<p>During the pre-bid meeting, a point was raised by one of the prospective bidders about Glow Discharge Plasma Cleaning attachment in the Sputter and Carbon Coater. As discussed during the pre-bid meeting we have a Remote Downstream Plasma Cleaning in which you can clean samples placed over carbon coated copper grids without damaging the carbon film which is generally seen in Glow Discharge Plasma Cleaning. Remote Downstream Plasma Cleaning systems suitable for delicate samples including samples placed over carbon coated copper grids are manufactured by very few manufacturers such as:- 1 Evactron USA and 2. IBSS USA. For your information, we have indigenously developed downstream plasma ashing system having advantages similar to these two companies.</p> <p>Please find attached hereto the literature regarding how Remote Downstream Plasma Cleaning has several advantages against Glow Discharge Plasma Cleaning. Please also find attached hereto our product MicroKlean Plasma Asher brochure for your kind perusal.</p>	<p>Mascotek Scientific Private Limited may quote the "Plasma Cleaner" as an additional accessory item. If required, technical committee may consider it.</p>

**उप कुलसचिव**  
**(सामग्री प्रबंधन विभाग)**  
**Deputy Registrar**  
**(Materials Management Section)**

(2/3)

  
 27.2.15..



d	M/s. Mascotek Scientific Private Limited	Essential Criteria: The supplier/company should have the experience of setting up working at least 10 such TEM sample preparation set up or labs in India.	<p>Our company Mascotek Scientific Private Limited are manufacturers of SEM and TEM specimen preparation Equipment in India. We design and manufacture all our machines in Pune and have a robust service network. Our company was started in May 2022 with an objective of indigenously manufacturing specimen preparation equipment in India. We already have two customers for Sputter and Carbon Coater</p> <ol style="list-style-type: none"> <li>1. Veer Surendra Sai University of Technology – VSSUT, Burla</li> <li>2. Shahjalal University of Science and Technology, Sylhet, Bangladesh</li> </ol> <p>Both customers satisfied with the system we supplied. Additionally, we have several customers for our other TEM specimen preparation equipment such as IISC, IIT Bhilai, IIT Ropar, IIT BHU, IGCAR, etc. We therefore request you to kindly consider revising your criteria from 10 satisfactory installations to two satisfactory installations in previous three years. This will give us an opportunity to quote for the tender and help the common objective set forth by the Government of India under the "Make in India" initiative.</p>	As Carbon Coater sophisticated equipment, it is desirable to purchase it from a highly reliable, quick service-oriented vendor who has a proven track record of at least 10 successful installations in India. Hence, it is not possible for us to compromise on this point.
e	As per NIT	Verbal queries regarding the terms and conditions.	All queries were properly addressed and resolved satisfactorily.	

**Note-**

1. The date of submission of bids & opening of bids remain unchanged.
2. All prospective/willing bidders are requested to take note of this report as part of the tender document. All other parts of the tender including the terms and conditions will remain unchanged.

  
 Deputy Registrar  
 MM Section  
 IIT INDORE  
 उप कुलसचिव  
 (सामग्री प्रबंधन विभाग)  
 Deputy Registrar  
 Materials Management Section