

Tender Notification for the procurement of “C-H-N-S Elemental Analyser” at the Indian Institute of Science, Bangalore

(Late date of submission of tenders: **12:00 noon, 20 DEC 2019**)

Dear Sir/Madam,

Please submit your bid valid for 90 days for supply of the following equipment along with the terms and conditions and other vital information as required by us. Your response may please be addressed to The Chair, Centre for Ecological Sciences, 3rd Floor, Biological Sciences Building, Indian Institute of Science, Bangalore 560012, Karnataka, India, so as to reach on or before 12:00 noon, 20 December 2019.

C-H-N-S Elemental Analyser

Technical Specifications:

Automated computer-controlled ‘macro’ Elemental Analyser for solid and liquid samples taken from plants and soils. This must be demonstrated during installation.	Required
Plant samples can contain up to 50% carbon (w/w), e.g., leaves, wood, bark. The instrument should be able to analyse 40-50 mg of total C in a sample. i.e., ‘macro’ analysis. Instrument should analyse 500-1000 mg of solid sample weight, or more.	Required
Elements – C, H, N, and S	Required
Measurement range, 0.005% to 100% for all elements (w/w)	Required
Standard deviation of measurements, <0.5% of absolute value	Required
Electronic mass flow, flow sensors, and pressure control through computer	Required
Independent combustion and reduction furnaces, where their respective temperature is controlled by computer. Combustion temperature should be >1000 degrees C	Required
Provision for easy and quick disposal of ash	Required
TCD or IR detector for CHNS elements	Required
Carrier gas Helium and/or Argon. Instrument should be compatible with both carrier gases, and this must be demonstrated during installation	Required
Autosampler for use with solid (e.g., soil or plant tissue powder) with capability of >40 samples in one run	Required
Liquid sampler capability for use with plant and soil extracts. This must be demonstrated during installation.	Required
Computer software for operations (e.g., Compatible with WIN/MAC/LINUX Operating System, e.g., Win7 or Win10).	Required
Data retrieval through ASCII format (csv, xlsx, or equivalent file format)	Required
Gas cylinders (carrier gases, oxygen) and stainless-steel regulator knobs	Required
Baseline correction for any impurity in carrier/combustion gases (He, Ar, O)	Required
Kit for consumable items. Starter kit for 5000 samples (4000 solids, 1000 liquid)	Required
Complete operating manual, hard copy and soft copy	Required
Indian Standard electrical connectivity (e.g., 220V, 50 Hz supply and sockets)	Required
Two years complete warranty for all manufacturing defects.	Required
List of at least 10 clients and users in India, preferably with some clients in the southern region and in the city of Bangalore.	Required

Details of any service centre and availability of technical support in India, especially in the southern region and particularly in the city of Bangalore	Required
Pointwise compliance statement along with detailed documentary evidence of technical specifications from the manufacturer	Required
Detailed demonstration of instrument functionality during installation	Required
Three years extended warranty for maintenance through AMC	Optional
Accessory detector for estimating the level of any impurity in carrier/combustion gas (e.g., hydrocarbons, CO ₂ , NO _x , and similar impurities that can potentially affect readings)	Optional
Additional upgrade capability for Oxygen (CHNSO elements)	Optional
UPS and battery backup	Optional
PC desktop	Optional

TERMS AND CONDITIONS FOR SUBMISSION OF BIDS

1. The quotations should be submitted in two bids, i.e., TECHNICAL bid and COMMERCIAL bid. The technical bid must include all the details of the technical specifications of the instrument along with terms and conditions masking only the price component. Bill of materials, brochures, technical datasheets, and any other document may be enclosure to help the evaluation of the technical bid. Technical bids will be evaluated based on their compliance with 'Required' features only, and not on the basis of "Optional" features. The commercial bid must include the price of the instrument in Indian/Foreign currency, indicating break-up as follows:
 - (A) For goods manufactured in India:
 - a. Price of the goods quoted Ex-works inclusive of all taxes.
 - b. Charges for inland transportation, insurance, and other services may be indicated separately.
 - c. Installation, Commissioning and training charges etc., if any.
 - (B) For goods manufactured abroad:
 - a. Price (CIF, Bangalore). Applicable Custom Duty will be borne by the Institute.
 - b. Charges for insurance and transportation of the goods by freight up to Bangalore
 - c. Installation, Commissioning and training charges, etc., if any.
 - (C) Both the Technical and Commercial bid should be put in separate sealed envelopes, and put together in another cover stating "Quotation for CHNS Analyser" and should reach us on or before 12:00 noon, 20-Dec-2019
2. Warranty should be for a period of **2 years** from the date of installation.
3. Annual maintenance contract for **3 years** after warranty period may be quoted separately.
4. We prefer to make payment by letter of Credit- 90% against presentation of documents and 10% after installation. All foreign bank charges, if any, should be borne by the beneficiary.
5. In addition to this, LC Amendments, Extension, Confirmation Charges, if required, are to be borne by the beneficiary.
6. For Supplies within India, the payment term is after supply and satisfactory installation.
7. If the goods are found to be defective, they have to be replaced/rectified at the cost of the suppliers within 15 days from the date of receipt of written communication from us. If there

is any delay in replacement/ rectification, the warranty period should be correspondingly extended.

8. Conditional tenders will not be accepted.
9. The purchaser reserves the right to accept or reject any bid, and to annul bidding process and reject all bids any time prior to award of contract, without thereby incurring any liability to the affected bidder or bidders.

Yours Sincerely,

Prof. Rohini Balakrishnan
Chair, Centre for Ecological Sciences
Indian Institute of Science, Bangalore-560012