



WADIA INSTITUTE OF HIMALAYAN GEOLOGY
(An Autonomous Institution of Department of Science & Technology Government of India)
33, GENERAL MAHADEO SINGH ROAD,
DEHRA DUN- 248001 (INDIA)

Phone : 0135-2525500, 2525501,
FAX : 0135-2625212, 2525200
Web : <http://www.wihg.res.in>

E-mail : stores@wihg.res.in
E-mail : store_gen@wihg.res.in

NOTICE (सूचना)

सन्दर्भ: 5001/1/उपकरण/Picarro Portable Triple Isotope Analyser /2024-25/

दिनांक: 11.11.2024

सेवा में

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विषय:- “साम्पत्तिक वस्तु प्रमाण-पत्र” (**PROPRIETARY ARTICLE CERTIFICATE**) के आधार पर संस्थान हेतु “Picarro Portable Triple Isotope Analyzer (L2140-i)” उपभोज्य को क्रय करना आपेक्षित हैं | जिसका विवरण निम्न तालिका-‘क’ के अनुरूप हैं-

तालिका-‘क’

क्र. सं.	विवरण	आवश्यक मात्र	ईएमडी की लागत	सुरक्षा जमा राशि
1	Picarro Portable Triple Isotope Analyzer (L2140-i) {Detailed technical specification as per Annexure-1}	01	लागू नहीं	लागू नहीं

सर्वजन को सूचित किया जाता है कि संस्थान द्वारा उपरोक्त तालिका-‘क’ के अनुरूप आपेक्षित “**Picarro Portable Triple Isotope Analyzer (L2140-i)**” को (PAC) आधार पर क्रय करना हैं | यदि कोई उपभोक्ता/फर्मदाता/बोलीदाता, उक्त “**Picarro Portable Triple Isotope Analyzer (L2140-i)**” के अनुरूप अपनी प्रतिभागिता करना चाहता हैं | वह 21 दिनों के अन्दर-अन्दर अपना पक्ष/प्रार्थना-पत्र/ई-मेल (पूर्ण विनिर्देशों के साथ) दी गई ई-मेल आई०डी० जैसे store_gen@wihg.res.in, stores@wihg.res.in, पर कर सकता हैं |

उक्त सूचना (Notice) 21 दिनों (**दिनांक: 11.11.2024 से दिनांक: 02.12.2024 तक**) तक प्रभाव में रहेगी |

-कृते-

(भंडार एवं क्रय अधिकारी)

कृते निदेशक, व.हि.भू.सं.

Annexure 1
Detailed Technical Specifications
For Picarro (L2140-i) Triple Isotope Analyzer

TECHNICAL SPECIFICATIONS

Triple isotope water Analyzer with accessories for simultaneous ultra-high-precision measurements of $\delta^{18}\text{O}$, $\delta^{17}\text{O}$, δD and 17O-excess in the vapor or liquid phase in a single injection within the laboratory and must be portable & rugged for optimal field deployment.

General Requirements	
1	System should have latest technology based on Cavity Ring-Down Spectroscopy (CRDS) technology for simultaneous measurement of $\delta^{18}\text{O}$, $\delta^{17}\text{O}$, and δD , and 17O-excess in water/vapour. Preference will be given to instrument with highest guaranteed precision.
2	The entire operation of the system shall be fully computer interfaced and remotely manageable. All data recorded in .csv compatible format, easy export, and post-analysis. Wavelength monitor to control the wavelength of the laser to within 2-3 MHz or better with spectral features.
4	Latest acquisition & processing system shall be used for the generation of data and its processing. At the time of the supply, the rack mounted computer system and compatible software shall be provided for the generation of data and its processing with Licensed Version of Windows Operating system.
5	The entire work of installation and commissioning of the system has to be carried out by the bidder.
6	Warranty of two years on the system.
7	Bidder has to submit certificate from the user of any operational research centre indicating successful operation of Water & Vapor Isotopic Analyzer.
8	Bidder should provide the OEM authorization certificate for the proposed make and model.

	Parameter	Specification
A	Specifications for Vapor Specimen.	
1	Measurement Range	1,000 to 50,000ppm or better
2	Guaranteed Precision (1σ at 12,500 ppm (Normal mode)	0.12/0.04‰ for $\delta^{18}\text{O}$ at 10/100 sec 0.3/0.1‰ for δD at 10/100 sec
3	Guaranteed Precision (1σ) at 12,500 ppm ('17O-excess' mode)	0.04‰ for $\delta^{18}\text{O}$ at 300 sec 0.04‰ for $\delta^{17}\text{O}$ at 300 sec 0.1‰ for δD at 300 sec 0.015‰ for 17O-excess at 3,600 sec or better
4	Measurement Rate	~1 Hz
B	Specifications for Liquid Specimen	
1	Guaranteed Precision (1σ)	0.025‰ ($\delta^{18}\text{O}$), 0.025‰ ($\delta^{17}\text{O}$), 0.1‰ (δD) and 0.015‰ (17O-excess) or better
2	Maximum 24-hour Drift (vapor & liquid)	0.2‰ ($\delta^{18}\text{O}$), 0.2‰ ($\delta^{17}\text{O}$), 0.8‰ (δD) and 0.2‰ (17O-excess) or better
3	Throughput	140 - 150 injections per day or better
4	Memory (within X % of final value after 4 injections)	99% (for $\delta^{18}\text{O}$, $\delta^{17}\text{O}$ and 17O-excess), 98% (δD)
C	Other specifications	
1	Ambient temperature range	-10 to 45°C (vapor sample). 10 to 35°C (liquid sample & system operation). -10 to 50°C (storage)
2	Sample Pressure	300 to 1000 Torr
3	Sample Flow Rate	~40 sccm at 760 Torr, without need for filtration
4	Power supply	230 VAC, 50 Hz
5	Measurement Cell Temperature	$\pm 0.005^\circ\text{C}$ or better

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	Control	
6	Measurement Cell Pressure Control	± 0.0002 atm or better
7	Data Outputs	RS-232, Ethernet, USB
8	Technology	Cavity Ring Down Spectroscopy (CRDS) or latest
D	Analyzer Sub-systems	
1	Auto-sampler	Automated liquid injections for isotopic water analysis via autosampler with tray holding capacity of minimum 120-140 vials with software control of methods, job sequence, and rinsing either between injections or between vials.
2	High Precision Vaporizer	Required for liquid water analysis.
3	Software	Latest Post processing software suitable for the analyzer data acquisition. Additional software package to be supplied to obtain identification, quantification of organic components in water samples
4	Dry gas kit	Fittings for analyzer must include high purity pressure regulator, Swagelok fittings, tubing, cutters, and assembly instructions.
5	Monitor	19" LCD display with DVI port, 1280 x 1024 resolution
6	Isotopic water kit	Must include syringes, vials & caps, septas for 1,000 samples for using Precision vaporizer and Auto-sampler
7	Secondary water isotopes standard kit	USGS standards for calibrating the isotope water analyzer must be provided.
8	Vapor mode configuration kit	Dual mode configuration for calibrating water vapor isotope measurements using a liquid auto-sampler. To be quoted with necessary hardware and software.
9	External Pump	Suitable to draw vapor specimen
E	Installation	
1	Essential accessories for installing the Water & Vapor Isotopic Analyzer to be provided. Pre-requisites for both civil & electrical requirements for installation of the system be clearly mentioned separately, inclusive of suitable diagrams if any.	
F	WARRANTY	Two years standard warranty from date of installation on complete system.
G	TRAINING:	Onsite training in operations to be provided after successful installation of the system by OEM or authorized dealer. User's Manual for installation and operation to be provided.
13	COMPLIANCE STATEMENT	The bidder shall submit detail para-wise technical compliance statement in tabulated format mentioning full details, and page no. of the bid for each parameter along with reasons for compliance/noncompliance, if any.
14	COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT	To be quoted for three years beyond the warranty period of two years along with essential kit.