Event Summary - Nuclear Magnetic Resonance Spectrometer

Type Invitation to Bid Number 02QATAR-ITB-1995

Stage Title Organization **TAMU**

Currency **US** Dollar **Event Status** Awarded **Work Group TAMU-Qatar Exported on** 2/27/2020 Patricia Winkler **Exported by** For Requisition 127899028 **Created Document Estimated Value** 299,815.62 USD

Payment Terms

Bid and Evaluation

Respond by Proxy Allow **Use Panel Questionnaire** No **Sealed Bid** Yes **Auto Score** No

Cost Analysis No

Alternate Items No

Visibility and Communication

Visible to Public Yes

Enter a short description for this public event

Texas A&M University at Qatar is seeking bids for the upgrade of an existing Bruker 400 MHz Nuclear Magnetic Resonance Spectrometer by replacing its units: AVANCE II Console, HPPR, Auto Sampler and BB

Commodity Codes

None Added

Event Dates

Time Zone CDT/CST - Central Standard Time (US/Central)

Released

Open 1/31/2020 12:00 AM CST Close 2/14/2020 2:00 PM CST 2/14/2020 2:00 PM **Sealed Until**

Show Sealed Bid Open Date to Supplier

2/14/2020 2:00 PM CST **Q&A Close**

Description

Stage Description.
Texas AcM University at Qatar is seeking bids for the upgrade of an existing Bruker 400 MHz Nuclear Magneticines of Magnetic Spectrometer by replacing its units: AVANCE II Console, HPPR, Auto Sampler and BB Probe. NO SUBSITUTIONS ARE ACCEPTABLE - MUST INTERFACE WITH EXISTING EQUIPMENT

Attention Bidders:

Texas A&M, Procurement Services is transitioning to an E-commerce system for all invitation for bids and purchase orders. We are asking all vendors to take a few moments and register as one of our vendors. This will allow you to respond to our bid invitations electronically as well as view other bid opportunities.

Please visit the following website to register:

https://bids.sciquest.com/apps/Router/PublicEvent?CustomerOrg=TAMU

All invitation for bid documents not submitted electronically via the AggieBid system will only be accepted via the following methods:

- -Email tamuaggiebid@tamu.edu
- -Express Mail (FedEx, UPS, etc.)
- -US Postal Service
- -Hand Delivered

All invitation for bid documents not submitted electronically via the AggieBid system must be returned on our form.

As a bidder responding to this invitation upon submission of your response, regardless of the format of your submission, you and the entity you represent are agreeing to the terms and conditions presented here as well as the TAMU terms and conditions located

at http://purchasing.tamu.edu/media/123743/bidtamu.pdf

Physical Address:

Texas A&M University Procurement Services Agronomy Road College Station TX 77843-1477 Fax - 979-845-3800

NOTE: If responding manually, please submit with your bid response a W9. This will allow us to enter your company into our bid system and include your response on the electronic tabulation

Prerequisites ★ Required to Enter Bid

1 ★ Instructions To Supplier :

Please acknowledge that additional terms and conditions have been reviewed

Certification

I certify that I have read and agree to the terms above.

Supplier Must Also Upload a File:

No

Prerequisite Content:

Award

In accordance with Texas Education Code 51.9335, Texas A&M University shall make the award based on, but not limited to, the following best value criteria:

- The purchase price;
- The reputation of the vendor and of the vendor's goods or services;
- ① The quality of the vendor's goods or services;
- The extent to which the goods or services meet the institution's needs;
- ① The vendor's past relationship with the institution;
- The impact on the ability of the institution to comply with laws and rules relating to historically underutilized businesses and to the procurement of goods and services from persons with disabilities;
- ① The total long-term cost to the institution of acquiring the vendor's goods or services;
- ① Any other relevant factor that a private business entity would consider in selecting a vendor; and
- The use of material in construction or repair to real property that is not proprietary to a single vendor unless the institution provides written justification in the request for bids for use of the unique material specified.

Other relevant factors deemed necessary to evaluate the offer and determine the best value for the University:

- U Vendor's ability to meet the minimum specifications;
- ① Delivery requirement;
- The quality, availability and adaptability of equipment offered to required application.
- ① Insurance Requirements

By submitting a bid in response to this solicitation, bidder agrees to the selection and award process, and accepts Texas A&M University's judgment and decision of award. Texas A&M reserves the right to accept or reject any or all bids, waive informalities and technicalities, and accept the offer considered the most advantageous to the University.

Buyer Attachments

Detailed Specifications

02Qatar-ITB-1995.docx

../Attachments/02Qatar-ITB-1995.doc

TAMU Standard Terms & Condition

http://purchasing.tamu.edu/media/123 743/bidtamu.pdf

Questions ★ Supplier Response Is Required

Page 1

Group 1

Payment Terms - Quote 100% Net 30 Upon Receipt, Installation and Acceptance. If quoting 1.1 as specified, type "Agreed" in the required field. If quoting otherwise, indicate here-in. Text (Single Line) 1.2 Delivery Terms: Quote delivery time, upon receipt of each order Text (Single Line) INDICATE CURRENCY QUOTED: NON-QATAR VENDORS, please bid in your local currency (bank account currency). FOR QATAR VENDORS, please bid in Qatari Riyals (QAR). 1.3 Currency Quoted*: *Indicate USD, QAR, GBP, EUR, etc. Text (Single Line) 1.4 Shipping Terms - Indicate incoterm offered - DAP, DPP, EXW, etc. Text (Single Line) Insurance Requirement: Have you provided a sample certificate of insurance for evaluation 1.5 with your bid response? Yes/No 1.6 Warranty Terms - indicate warranty terms offered Text (Single Line) Vendor to indicate contact person and contact phone and fax numbers where orders are to 1.7 be placed: Contact: Telephone Number: Fax Number: Email: Text (Multi-Line)

Product Line Items

Required Product Line

Group P1

#	Item Name, Commodity Code, Description	Qty.	UOM	Target Price	Allow Alternates	Requested Delivery
P1.1	AVANCE NEO NMR ★ SPECT	1	EA - Each	-		-
	41115403 - Spectrometers detailed specifications	5751 <\$	55k, 8422 / AVAN	CE NEO NMR SP	ECT. 400 NanoB	ay Console, per
P1.2	HP Windows 10 Pro ★	1	EA - Each	-		-
	41115403 - Spectrometers	5751 <\$	55k, 8422 / HP Wi	ndows 10 Pro 64	B it PC per detaile	d specifications
P1.3	Monitor ★	1	EA - Each	-		-
	41115403 - Spectrometers	5751 <\$	55k, 8422 / 24 incl	n TFT Monitor, pe	r detailed specific	ations
P1.4	TopSpin 4 ★	1	EA - Each	-		-
	41115403 - Spectrometers detailed specifications	5751 <\$	S5k, 8422 / TopSp	in 4 . acquisition a	and processing lic	ense per
P1.5	Smart Probe ★	1	EA - Each	-		-
	41115403 - Spectrometers	5751 <\$	55k, 8422 / Bruker	Smart Probe, iPr	obe, per detailed	specifications
P1.6	NMR Automation ★ SampleCase	1	EA - Each	-		-
	41115403 - Spectrometers specifications	5751 <\$	55k, 8422 / Bruker	NMR Automation	n SampleCase 24	per detailed
P1.7	POM Spinner ★	24	EA - Each	-		-
	41115403 - Spectrometers detailed specifications	5751 <\$	S5k, 8422 / POM S	Spinner standardb	ore shimsystems	(5 mm) per
P1.8	Structure Elucidation Software license	1	EA - Each	-		-
	41115403 - Spectrometers detailed specifications	5751 <\$	S5k, 8422 / CMC-s	se Structure Eluci	dation Software lie	cense per
P1.9	Installation and Onsite Training	1	LO - Lot	-		-
	41115403 - Spectrometers	5751 <\$	55k, 8422 / Installa	ation and Onsite T	raining per detaile	ed specifications
P1.1 0	NMR Training Course Spectrometer Service	1	LO - Lot	-		-
	41115403 - Spectrometers Maintenance per detailed s			Fraining Course S	pectrometer Serv	ice &

Service Line Items

There are no Items added to this event.



Reference AggieBid # 02QATAR-ITB-1995 Upgrade: Bruker 400 MHz Nuclear Magnetic Resonance Spectrometer

Item #	Item & Description	Qty	Unit	Unit Price (USD)	Extension	Delivery (Days)
	Texas A&M University at Qatar is seeking bids for the upgrade of an existing Bruker 400 MHz Nuclear Magnetic Resonance Spectrometer by replacing its units: AVANCE II Console, HPPR, Auto Sampler and BB Probe.					
	Upon award, item will be for use and delivery to the Texas A&M University at Qatar campus located in Doha, Qatar.					
	Shipping Terms for Non Doha vendors: Incoterm - DAP (Delivery at Place), Vendor will deliver the goods DOOR-TO-DOOR to TAMUQ excluding Duties & Taxes and Including Custom Clearance. TAMUQ is responsible for Duties, Taxes, Legalization and Bayan.					
	Shipping Terms for Doha vendors: Incoterm - DDP (Delivery Duty Paid), Vendor will deliver the goods DOOR-TO-DOOR to TAMUQ including Duties, Taxes and Customs Clearance. No additional charge will to T AMUQ.					
	For shipping terms DDP: Qatar Customs have implemented an automated electronic clearance process called "Single Window" and all incoming shipment will be subject to BAYAN & Admin Charge. For shipping terms DDP, all customs chargers will be borne by the vendor. TAMUQ will not be responsible for these charges with your shipping agent					
	For any shipping related concerns, please contact: shippingreceiving@qatar.tamu.edu					
	PLEASE NOTE (for reference only): Qatar Customs requires ALL original shipping documents (depending on which shipment mode) as per below list. Please check and confirm with your shipping agent if these documents are required to be provided to their local clearing agent to clear the shipment from Qatar Customs:					

1477 TAMU P.O. Box 30013 College Station, TX 77842-3013

Tel. 979.845.5887 Fax. 979.845.3800 http://purchasing.tamu.edu

	Original Certificate of Origin stamped from Chamber of Commerce				
	 Original Commercial Invoice stating each item (price/original made/quantity) stamped 				
	from Chamber of Commerce				
	 Packing List 				
	Airway Bill				
	All information MUST be the same on each of the above documents. If information is different, the shipment will not clear Qatar Customs.				
	Payment Terms: 100% Net 30 upon receipt of goods, invoice, completion of installation, acceptance, whichever is later.				

	NON-QATAR VENDORS, please bid in your local currency (bank account currency).				
	FOR QATAR VENDORS, please bid in Qatari Riyals (QAR).				
	Currency Quoted*:				
	*Indicate USD, QAR, GBP, EUR, etc.				
1	AVANCE NEO NMR SPECT. 400 NanoBay Console - HIGH PERFORMANCE DIGITAL AND COMPACT NMR CONSOLE	1	EA		
	Magnet System The spectrometer will use the existing magnet system, stand, and Helium transfer line.				
	Bruker Shim and Sample Transfer System Bruker high performance matrix Orthogonal Shim System (BOSS TM) with 36 gradients (BOSS-III) low current and low heat dissipation design for optimum homogeneity.				
	Bruker standard bore Sample Transfer (BST) system for sample insertion into the magnetic center. Prepared for shim system cooling. Allows spinning of samples with 3 to 10mm sample diameter. Built-in sample down detection together with BSVT.				
	Basic system characteristics The AVANCE NEO Nanobay system console electronics is housed within a compact stainless steel cabinet with full RF shielding (i.e. immunity against DVB-T, ATSC, ISDB-T and DTMB).				

It incorporates a state-of-the-art Ethernet ROUTER providing up to 14 TCP/IP based Ethernet ports for internal and external spectrometer devices such as automated sample changers, CryoProbeTM CryoPlatforms, magnet control and monitoring equipment, solid state NMR accessories, etc. A dedicated, on-system Embedded Processing Unit (EPU) with separate 1TB Hard Disk drive allows versatile and flexible spectrometer control.

Acquisition characteristics

- 80 MHz system clock, synchronicity on all channels within 12.5ns timing resolution
- A Timing and Gradient Control Unit (GTU) for all gradient amplifiers. It controls the overall timing of the spectrometer (all RF channels, gradients, real time pulses, triggers, etc.) Gradient control with a resolution of 12.5ns for Z gradients
- •10A High Resolution NMR gradient amplifier (GAB/2) The GAB/2 is a fast single channel offset-free gradient amplifier unit for pulsed field gradient shimming and single axis Gradient enhanced Spectroscopy (GRASP). It provides pulsed field gradients up to 10A (50ms per second) and a built-in pre-emphasis. On-axis (Z) and off-axis (XYZ) gradient shimming using real-time shim current control together using TopShimTM for single axis gradient probes. TopShimTM is proprietary gradient shimming including lineshape optimization (see JMR 182(1), 38-48, 2006).
- Pulse program synchronization with up to 4 Trigger inputs with 12.5ns timing resolution
- NMR synchronized and real-time control output for external devices (e.g. laser systems, pumps). Up to 11 independent controls with 12.5ns timing resolution

RF channel characteristics

- 2 RF channels (Transceiver units, TRX1200) are accommodated. Each TRX1200 provides full broad banded transmit and full broad banded receive channel up to 1.2 GHz. Multi-receive ready with two 2 receiver channels. No extra wiring or other component required. The TRX1200 is a highly integrated NMR RF transceiver (transmit and receive) unit with built-in pulse program engine (sequencer, waveform memory) providing:
- RF signal bandwidth from 5 to 1200 MHz for transmit and receive
- Timing resolution of 12.5 ns
- Simultaneous RF amplitude, phase & frequency switching in 12.5ns
- High speed ADC, 240 MSPS @16 Bit, Digital Down Converter (DDC)
- High speed DAC, 960 MSPS, Digital Up Converter (DUC)
- High Intermediate Frequency (IF) for transmit and receive of 1852 MHz (i.e. no unwanted LO windows)

- Sequencer waveform memory 1GB for pulse shaping, optimal control applications, composite pulse decoupling
- Spectral width up to 7.5 MHz
- Effective dynamic range >17 Bit (5 MHz) / >19 Bit (1 MHz) / >23 Bit (6 kHz)

Linear 2 channel RF amplifier for observe and decoupling with:

- Min. 50W RF peak power @180 400 MHz
- Min. 170W RF peak power @20 40 MHz
- Min. 140W RF peak power @41 162 MHz

Pulse program controlled blanking and ultra-fast rise/fall times. Built-in RF amplifier protection with forward / reflected RF power monitoring.

High performance preamplifier system

- RF power supervision for fast shut-downs built-in which provides probe protection (together with PICS)
- Accurate tuning and matching with factory calibrated preamplifiers (Network analyzer technology) and fully integrated automatic tuning and matching (with ATM probe). No separate unit needed
- •Supports all 3 RF preamplifier channels.

Preamplifiers designed to be used without the need of external filters. Linear, low noise, GaAs based preamplifier for 1H observe and decoupling including:

- Low Noise Figure (NF) ~1.5 dB including all internal filters and active transmit receive switch
- •Max. 100W peak power RF capability
- •Build in RF power detection
- •Factory calibrated for accurate tuning and matching Linear, low noise, GaAs based broad banded preamplifier for observe and decoupling of nuclei from 57Fe 'up to 19F with:
- \bullet Noise Figure (NF) ~1.2 dB including all internal filters and active transmit-receive switch
- Max. 500W peak power RF capability
- Factory calibrated for accurate tuning and matching
- •Built-in 1H stop and 2H stop filter

This broad band RF preamplifier module is designed to be used with broad band 'and selective probes. Linear, low noise, GaAs based preamplifier for 2H observe, decoupling and lock operation

- Noise Figure (NF) ~1.7 dB including all internal filters and active transmit-receive switch '
- Max. 500W peak power RF capability
- 2H lock / observe RF routing built-in
- Fast, pulse program controlled mode switching (lock / decouple)
- Factory calibrated for accurate tuning and matching

Shim, Lock and VT characteristics

• Ultra-stable shim current sources (SCB20) for Bruker BOSS III RT shim systems. Two SCB20 high precision, ultra-stable shim current boards providing 40 shim current sources with each 20-bit digital resolution and +/- 1A shim current range.

	Note: Supports BOSS-III shim systems and BOSS-I plug style Standard Ethernet based Bruker Digital NMR Lock (2G DigiLock TM) for 2H nucleus (L-TRX) together with ultra-stable, ultra-low noise B0 current source (ELCB). Integrated lock RF transceiver (L-TRX), transmit and receive unit) with incorporated 5W RF amplifier for field lock operation on deuterated solvents provides: Fast and accurate gradient shimming on 2H using TopShim TM Easy and reliable locking on multiple lock solvent signals (e.g. Pyridine) even in automation Accurate sample temperature determination with NMR Thermometer TM TopShim TM provides proprietary gradient shimming including lineshape optimization (see JMR 182(1), 38-48, 2006). Bruker Smart Variable Temperature control (BSVT) controls with up to 4 independent VT channels, optional Bruker SmartCoolers TM (e.g. BCU-I), optional Low Temperature accessories (LN2 exchanger / evaporator) and High Temperature equipment The Bruker SmartVT (BSVT) is a highly integrated unit to provide Digital temperature sensor resolution better than 5mK Temperature stability depends on environment and probe (e.g. 10mK/K for HR RT probes) Supports various temperature sensor types (e.g. thermocouple T or E, PT100) VT gas flow monitoring up to 3000l/hr with mass flow regulation Sample freeze protection for CryoProbes built-in (probe safety)				
2	PC with Windows OS HP Windows 10 Pro 64 Bit PC equipped according to latest configuration: e.g. HP Z440 Intel Xeon E5- 1620v4, 3.8GHz, Quad Core 16 GB RAM, 2TB Hard Disc, DVD +/-RW DL Drive HP USB Laser Mouse	1	EA		
3	24 inch TFT Monitor	1	EA		
4	TopSpin4 acquisition and processing license Including: NMR data acquisition (arbitrary dimensions) and processing (1D, 2D, 3D, 4D and 5D) TopGuide, menu guided acquisition setup NMRGuide for training of users in use of 1D and 2D experiments with NMR literature library Icon NMR automation interface	1	EA		

	Structure Analysis Software: Relaxation analysis (T1/T2) integration of 1D and 2D spectra deconvolution of 1D and 2D spectra NMRSIM for experiment simulation Daisy spectrum simulation software TopSpin interactive and automatic multiplet analysis TopSpin solid state lineshape analysis TopSpin integrated structure editor TopSolids integrated solid state NMR set-up CMC-assist, supporting NMR Data Interpretation Processing of Non Uniformly Sampled (NUS) data				
5	Latest Model Bruker Smart Probe, iProbe RT-DR-BF/1H-5mm-OZ SP IP 400 MHz - RT-DR-BF/1H-5mm-OZ SP iProbe 5mm X-nuclei-optimized double resonance broad banded probe designed for direct X-nuclei observation with 1H decoupling and 1H observation (Indirect detection). The iProbe offers superior single or multiple solvent suppression. Multipurpose probe with highest sensitivities for X and 1H detection. Features (PA BBO BBF-H-D-05 OZ SP IP): 2H Lock BB range 19F - 199Hg and 17O - 109Ag VT range -150 °C to +150 °C Z gradient with 5 G/A*cm Integrated VT Adapter Automatic Probe Recognition Fast Automated tuning & matching (ATM 2G) For AVANCE NEO No external filter required Gas Compensation: AIR	1	EA		
6	Bruker NMR Automation SampleCase 24 (User height Access) AH0171 SampleCase Features: Convenient sample access at user height Safe operation 24 easily accessed sample positions - Random access for sequential- or batch automation Unique manual push-button sample exchange Supports all common sample-tubes in spinners or shuttles Compatible with MAS and CryoFIT	1	EA		

7	POM Spinner standardbore shimsystems (5 mm) Plastic (POM) Spinner 5 mm, standardbore, Tmax = 80°C	24	EA		
8.	SHAT400A CMC-se ACA New CMC-se Structure Elucidation Software license for TopSpin3, based on MS input (molecular formula) and 1D/2D NMR data; to generate an editable correlation matrix between atoms; autom. peak picking and automation assisted Structure Elucidation	1	EA		
9.	Installation and Onsite Training	1	EA		
	All installations shall be performed by a single vendor				
	The requested equipment is to be supplied as a complete operational system, set-up and ready for use. This project shall be considered a "turnkey" project that includes all aspects of the installation.				
	The completed installation shall be inspected by Texas A&M – Qatar to assure that all equipment is installed in a professional manner, and in accordance with these specifications.				
	Training				
	Training shall include at a minimum of three (3) days onsite demonstration of the proper operating techniques of equipment ordered to at least two (2) individuals designated by the end user.				
	All training expenses must be included in pricing.				
	Insurance Requirement:				
	The successful vendor will, at its sole cost and expense, acquire and maintain in effect during the period of the Agreement, general and professional liability insurance and any employee compensation insurance as may be · required by the laws of the country in which the successful vendor is organized.				
	Bidders shall submit a copy of insurance certificate with bid response for review by System Office of Risk Management with bid response.				
10.	NMR Training Course, Spectrometer Service & Maintenance	1	EA		
					•

	AVANCE Spectrometer hardware introduction with block diagrams / use of the test programs and software service tools for BSMS, HPPR & BOSS / transmitter and receiver tests with the current BRUKER NMR software / system trouble-shooting concepts / supercon magnet and console maintenance.				
	During lectures, demonstrations and practical exercises on consoles and magnets the participant becomes familiar with trouble-shooting concepts and all maintenance work required.				
	Place: Duration: 5 days Language: English Course dates:				
	Course cost includes: course documentation, Air ticket, hotel accommodation, lunch, coffee breaks and local transportation.				
11.	Shipping and handling*	1	EA		
	*Please indicate, DDP, DAP, Ex-Works, etc				
12.	Warranty	1	YR		
13.	Educational Discount	1	EA		
	Note To Bidders:				
	Award				
	In accordance with Texas Education Code 51.9335, Texas A&M University shall make the award based on, but not limited to, the following best value criteria:				
	 The purchase price; The reputation of the vendor and of the vendor's goods or services; 				
	The quality of the vendor's goods or services;				
	The extent to which the goods or services meet the institution's needs;				
	The vendor's past relationship with the institution;				
	The impact on the ability of the institution to comply with laws and rules relating to				

historically underutilized businesses and to the procurement of goods and services from persons with disabilities; The total long-term cost to the institution of acquiring the vendor's goods or services; Any other relevant factor that a private business entity would consider in selecting a vendor; and The use of material in construction or repair to real property that is not proprietary to a single vendor unless the institution provides written justification in the request for bids for use of the unique material specified. Other relevant factors deemed necessary to evaluate the offer and determine the best value for the University: Vendor's ability to meet the minimum specifications; Delivery requirement; The quality, availability and adaptability of equipment offered to required application. **Insurance Requirements** By submitting a bid in response to this solicitation, bidder agrees to the selection and award process, and accepts Texas A&M University's judgment and

decision of award. Texas A&M reserves the right to accept or reject any or all bids, waive informalities and technicalities, and accept the offer considered

the most advantageous to the University.