THE UNIVERSITY OF SOUTHERN MISSISSIPPI
Procurement and Contract Services
118 College Drive #5003, Hattiesburg, Mississippi 39406-0001

Date: November 26, 2018

Bid No. 19-17

THE UNIVERSITY OF SOUTHERN MISSISSIPPI is considering the purchase of the following item(s). We ask that you submit your bid and retain one copy for your files. Right is reserved to accept or reject any part of your bid. Your quotation will be given consideration if received in Bond Hall, Room 214 on or before:

2:00 p.m. CST

December 13, 2018

Buyer: Jessica Turner

NOTE: If you cannot quote on the exact material shown, please indicate any exception giving brand name and complete specifications of any alternate. If additional space is required, use a separate sheet or letter of transmittal.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>QUANTITY</th>
<th>UNIT PRICE</th>
<th>TOTAL NET PRICE</th>
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<tr>
<td>RFx #3160002649</td>
<td>DESCRIPTION</td>
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<td>Bid 19-17 AFM-IR SYSTEM</td>
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PROPOSAL MUST BE RETURNED TO THE UNIVERSITY IN ACCORDANCE WITH THE SPECIFICATIONS. RFP NUMBER AND DATE OF BID OPENING MUST BE SHOWN ON THE OUTSIDE OF THE ENVELOPE IF USING THAT METHOD.

We quote you as above-F.O.B. The University of Southern Mississippi. Shipment can be made in _______ days from receipt of order. DATE ___________________ TERMS ___________________

Return quotation to Procurement Services at above address.

Signature Required

AA/EOE/ADA/1
THE UNIVERSITY OF SOUTHERN MISSISSIPPI
PROCUREMENT SERVICES
118 COLLEGE DRIVE #5003
HATTIESBURG, MS 39406-0001

GENERAL TERMS, CONDITIONS AND INSTRUCTIONS FOR BIDS/PROPOSALS

1.) Failure to examine any drawings, specifications, and instructions will be at bidder’s risk.

2.) Samples of items when called for must be furnished free of expense and if not destroyed in testing, will, upon request, be returned at the bidder’s expense. Request for the return of samples must be made within ten (10) days following opening bids. Each individual sample must be labeled with bidder’s name and manufacturer’s brand name and number.

3.) Bids must be signed and sealed with bidder’s name and address on the outside of the envelope, and the time and date of the bid opening and the bid file number shown in the lower-left corner of the packages; envelopes, express mailing labels, boxes, etc.

4.) In order for your bid to be considered, it must be received and time stamped in our office by 2:00 P.M. of the bid opening date. It is the responsibility of the vendor to ensure their bid is received within the appointed time. If your bid package is not received in Bond Hall, Room 214, by 2:00 P.M. of the bid opening date, it will not be considered.

If you are delivering your bid, you need to hand carry the bid package to:

The University of Southern Mississippi
Procurement Services
Bond Hall, Room 214
Hattiesburg, Mississippi

If you are mailing your bid package via U.S. Postal Service, mail to:

The University of Southern Mississippi
Procurement Services
118 College Drive #5003
Hattiesburg, MS 39406-0001

If you are express mailing your bid package via Federal Express or UPS, or any other delivery service which requires the use of a physical address, deliver to:

The University of Southern Mississippi
Receiving Department
2609 West 4th Street
Hattiesburg, MS 39401
5.) Bids or proposals shall not be modified, corrected, altered, or amended after the specified closing time and the opening of such bids, unless otherwise noted in the request for bids or proposals.

6.) The University of Southern Mississippi reserves the right to reject any and all bids, to waive any informality in bids, and unless otherwise specified by the bidders, to accept any items on the bid. If the bidder fails to state the time within which bids must be accepted, it is understood and agreed that The University of Southern Mississippi shall have 60 days to accept. The University of Southern Mississippi reserves the right to make an award to this bid on an all or none basis, or on a line by line basis, whichever serves the best interest of The University of Southern Mississippi.

7.) Contracts and purchases will be made or entered into with the lowest, responsible bidder meeting specifications.

8.) A written purchase order or contract award mailed or otherwise furnished to the successful bidder within the time of acceptance specified in the Invitation for Bid results in a binding contract without further action by either party. The contract shall not be assignable by the vendor in whole or in part without the written consent of The University of Southern Mississippi.

9.) Bid files may be examined during normal working hours by bid participants. Non-participants will be prohibited from obtaining any information relative to the bid until the official award has been made.

10.) If purchase orders or contracts are canceled because of the awarded vendor’s failure to perform or request for price increase, that vendor shall be removed from our bidders’ list for a period of 24 months.

11.) No addendum will be issued within a period of two (2) working days prior to the time and date set for the bid opening. Should it become necessary to issue an addendum within the two-day period prior to the bid opening, the bid date will be reset giving bidders ample time to answer the addendum.

12.) Alternate bids, unless specifically requested or allowed, will not be considered.

13.) Bid openings will be conducted open to the public. However, they will serve only to open the bids. No discussion will be entered into with any vendor as to the quality or provisions of the specifications, and no award will be made either stated or implied at the bid opening. After the close of the bid opening meeting, the bids will be considered to be in the evaluation process and will not be available for review by bidders. Proposal openings are not required to be open to the public; however, the resulting award is open for public inspection.

14.) Prices quoted shall be firm for the term of the contract or for the stated time of
15.) The bidder understands that The University of Southern Mississippi is an equal opportunity employer and, therefore, maintains a policy which prohibits unlawful discrimination based on race, color, creed, sex, age, national origin, physical handicap, disability, or any other such discrimination; and the bidder, by signing this bid, agrees during the term of agreement that the bidder will strictly adhere to this policy in its employment practices and provision of products or services.

16.) Bidders must upon request of The University of Southern Mississippi furnish satisfactory evidence of their ability to furnish products or services in accordance with the terms and conditions of these specifications. The University of Southern Mississippi reserves the right to make the final determination as to the bidder’s ability.

17.) Questions or problems arising from bid procedures should be directed to the Buyer listed on the solicitation at:

   The University of Southern Mississippi  
   118 College Drive #5003  
   Hattiesburg, MS 39406-0001  
   Phone: (601) 266-4131

18.) All items must equal or exceed the specifications listed. The absence of detail specifications or the omission of detail description shall be recognized as meaning that only the best commercial practices are to prevail and that only first quality materials and workmanship are to be used.

19.) It is the intent of the specifications to obtain a product that will adequately meet the needs of the user while promoting the greatest extent of competition that is practicable. It is the responsibility of the prospective bidder to review the entire Invitation to Bid packet and to notify The University of Southern Mississippi if the Specifications, Instructions, General, or Special Conditions are formulated in a manner which would unnecessarily restrict competition.

20.) It shall be incumbent upon the bidders to understand the specifications. Any requests for clarifications shall be in writing and shall be submitted to our Procurement Services office at least five (5) days prior to the time and date set for the bid opening, unless otherwise noted in the bid or proposal specifications.

21.) The minimum specifications are used to set a standard and in no case are used with the intention to discriminate against any manufacturer. Bidders should note the name and the manufacturer and model number of the product they propose to furnish and submit descriptive literature.

22.) Trade names, brand names, and/or manufacturer’s information used in these specifications are for the purpose of establishing quality, unless otherwise noted. Bids on
products of other qualified manufacturers are acceptable, provided they are demonstrated as equal to those specified in construction, design and suitability. Each bidder shall submit with his bid a complete brochure with pictures on each item and shall point out specifically any deviations from the specified items. Failure to do so may disqualify any bid. Please bid as specified or an approved equal.

23.) A copy of the manufacturer’s standard guarantee/warranty shall accompany and become a part of this bid.

24.) There are no federal or state laws that prohibit bidders from submitting a bid lower than a price or bid given to the U.S. Government. Bidders may bid lower than U.S. Government contract price without any liability as The University of Southern Mississippi is exempt from the provisions of the Robinson-Patman Act and other related laws. In addition, the U.S. Government has no provisions in any of its purchasing arrangements with bidders whereby a lower price to The University of Southern Mississippi must automatically be given to the U.S. Government.

25.) All invoices, unless noted otherwise, are to be billed to:

The University of Southern Mississippi
Accounts Payable
118 College Drive #5104
Hattiesburg, MS 39406-0001

26.) All equipment bid shall be of current production and of the latest design and construction.

27.) Where all, or part(s), of the bid is requested on a unit price basis, both the unit prices and the extension of the unit prices constitute a basis of determining the lowest responsible and responsive bidder. In cases of error in the extension of price, the unit price will govern.

28.) Should the University of Southern Mississippi close due to inclement weather conditions, or any other unforeseen events on the bid opening date, sealed bids will open the following business day at the same time and location.

29.) As an alternative to traditional sealed bids in envelopes, the University of Southern Mississippi is capable of receiving electronic bid responses. While this option is available, it is not required and we ask that all potential respondents keep in mind that with any electronic system there could be delays or glitches with the submission process; therefore the university highly encourages traditional sealed bids which are either mailed or submitted in person. Should a vendor choose to submit their response electronically, please follow the instructions below using the following website: https://www.ms.gov/dfa/contract_bid_search/Home/Sell. On this site you will find helpful links to procurement opportunities, as well as a link to supplier registration. If not already registered in this system, potential bidders will first need to click on Supplier
Registration’ and follow the steps outlined (a one-time process). Once registered, they can return to the original website and click on ‘Procurement Opportunities’ where they can either search by keyword for the bid they desire to respond to or leave the search box blank and click ‘Search’ for a listing of all current bids and proposals for the various State of Mississippi offices.

With regard to construction bids, there is one additional step required during the bid submission process. Along with the bid response and other attachments, contractors will also need to attach their Certificate of Responsibility (COR), or a statement that the bid enclosed does not exceed Fifty Thousand Dollars ($ 50,000.00). If their COR or such statement is not attached, the bid will be invalid and not considered.

AA/EOE/ADA1
General Specifications

The University is requesting an atomic force microscopy-with inferred excitement system or equivalent that meets or exceeds the following specifications:

Equipment

The system should include following specifications:

1. User selectable QCL laser wavelength from 1000-1800 cm⁻¹ and 2000~ 2250 cm⁻¹ from four pulsed QCL laser chip. The laser should be liquid cooled with a chiller.
2. The system shall provide standard AFM imaging modes including tapping mode, phase imaging, contact mode, lateral force mode, force modulation mode, force calibration.
3. The system shall be able to scan a minimum image area of 50 μm x 50 μm (X and Y, in the sample plane), with a minimum Z range of 6 μm.
4. The AFM X,Y scanner must have independent closed-loop linearization in order to precisely control tip position for point spectroscopy measurements and other experiments requiring precise control and positioning of the tip in X and Y
5. Support cantilever resonant frequency of 2MHz
6. The system shall contain computer controlled, motorized sample positioning stage with a range of travel at least 8 x 8 mm in X and Y
7. The system shall include an integrated optical microscope coupled to a 5MP digital camera and computer display. The optical imaging shall be in top view (i.e., looking down on the cantilever), with minimum spatial resolution of 1.5 μm
8. Support sample sizes up to 1-inch diameter
9. Fast probe changing. Support pre-mounted tips for standard probes with less than 5 seconds
10. Support standard AFM probes and cantilevers
11. The system shall include a means for vibration isolation
12. QCL lasers are liquid cooled and include a chiller
13. Nanoscale IR spectroscopy with Photothermal induced resonance technique
14. High Resolution IR spectroscopy with Tapping mode-based IR mapping by photothermal induced resonance technique
   Option to operate in the 2710-3800cm⁻¹ wavenumber range for photothermal based Tapping AFM-IR and high frequency contact mode based photothermal AFM-IR.
15. Mechanism for tapping mode-based IR chemical imaging using photothermal induced resonance must be fully disclosed and not in conflict with any registered patents.
16. Tapping mode based photothermal technique must be insensitive to non-local background forces providing material selectivity via resonance tuning technique
17. System must detect IR absorption using photothermal Induced resonance via cantilever oscillation method.
18. Straightforward interpretation of detection of infrared absorption, e.g, without need to interpret or model complex scattering near-field optical signal (s-SNOM). Provide proof through peer reviewed publications that such spectral interpretations are indeed possible for solid samples.
The Software should meet the following specifications:

1. The software provides control of all system components from a single software interface, including alignment of IR laser source, laser optics, AFM system, automated collection of images and spectra acquisition, and data analysis.
2. Alignment of laser source with the tip/sample is computer controlled over the entire laser tuning range with no manual adjustments required.
3. Easy to use software interface with “Hands Free” adjustment of lasers and mirrors for spectroscopy and imaging measurements.
4. System should provide automatic beam steering corrects for tunable source beam angle deviations.
5. System should provide dynamic laser power control automatically adjusts power to maintain maximum sensitivity
6. Automatic tracking optimization of IR laser onto the probe tip to minimize measurement set-up times
7. Single point spectroscopy measurements & line array measurements for automatic data collection on selected locations across the sample surface.
8. Easy selection of X-Y grid for automated hyperspectral data collection (with appropriate laser).
9. Two flat-panel computer monitors (minimum size 24”) for simultaneous display of multiple control menus, analysis and images.

Installation/Training
Vendor must complete installation which includes set-up, calibration, and onsite training. Final machine location, electrical, and air connections will be made by the vendor. Vendor must agree to minimum four days training on basic machine setup and operation.

Warranty
Bidder shall submit copy of written warranty. The University is requesting a minimum full 1-year warranty period including parts, travel, and labor.

Freight
The university is requesting delivery to University of Southern Mississippi Polymer Science Building, Hattiesburg, MS, USA.

Copies
At least one (1) signed original and two (2) copies of the bid response MUST be provided. The University requires a portable electronic virus/malware free copy (CD, thumb drive) of the bid response from the responding Vendor to be included in the bid response package. If an electronic copy is not included, the University reserves the right to request an electronic copy of the exact bid response prior to review of the bid.

Mandatory Legal Provisions

- Any provisions disclaiming implied warranties shall be null and void. See Mississippi Code Annotated Sections 11-7-18 and 75-2-719(4). The Vendor shall not disclaim the implied warranties of merchantability and fitness for a particular purpose.
- The Vendor shall have no limitation on liability for claims related to the following items:
  - Infringement issues;
- Bodily injury;
- Death;
- Physical damage to tangible personal and/or real property; and/or
- The intentional and willful misconduct or negligent acts of the Vendor and/or Vendor’s employees or subcontractors.

- All requirements that the University pay interest are deleted, except for those in conjunction with USM’s standard payment terms of Net 45 days. Payments made beyond 45 days are subject to late fees and interest.
- Should any of the terms and conditions in the purchase contract be in conflict with the laws of the State of Mississippi, the laws of the State of Mississippi shall supersede and govern. A revision of the terms and conditions will be required to ensure compliance with Mississippi state law.
- The University shall not pay any attorney's fees, prejudgment interest or costs associated with any legal action to or for the Vendor, except that which are ordered by a court of competent jurisdiction.

**Payment**

The currency used for payment of costs will be in United States dollars.

State law requires that the University receive an original invoice from the Vendor and that payment of the invoice is processed within 45 days of receipt (Miss Code 31-7-305). The invoice should be on the Vendor’s letterhead and/or include an original Vendor representative signature.

**USM Terms and Conditions**

Unless written exception is provided in the bid response, the winning Vendor agrees to be bound by the USM Terms and Conditions, which are incorporated herein, and may be found at [https://www.usm.edu/procurement-contract-services/usm-terms-and-conditions](https://www.usm.edu/procurement-contract-services/usm-terms-and-conditions).

**Delivery**

Quote the lead time required for delivery of the quoted equipment. Quoted prices should be F.O.B. Destination (Hattiesburg, MS) Freight Allowed.