



**THIS IS NOT
AN ORDER**

REQUEST FOR BIDS/PROPOSALS COVERSHEET
THE UNIVERSITY OF SOUTHERN MISSISSIPPI
Procurement and Contract Services
118 College Drive #5003, Hattiesburg, Mississippi 39406-0001

Date: May 27, 2020

Bid No. 20-39

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. CT

June 18, 2020

Buyer: Jessica Whitten

Name: _____

Company: _____

Address: _____

City/State/Zip: _____

TERMS - Bidder should state terms of sale. Our terms are 2% ten days, net 45 days.

These terms will apply per Mississippi law.

AWARDING CONTRACT - Cash terms will not be used as a basis for awarding contracts; however, the University will accept cash discounts when earned.

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.

ITEM	QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL NET PRICE
		<p align="center">RFx # 3160003659</p> <p align="center">DESCRIPTION</p> <p align="center">Bid 20-39 Spectroscopic Ellipsometer System</p> <p>PROPOSAL MUST BE RETURNED TO THE UNIVERSITY IN ACCORDANCE WITH THE SPECIFICATIONS. BID NUMBER AND DATE OF BID OPENING MUST BE SHOWN ON THE OUTSIDE OF THE ENVELOPE IF USING THAT METHOD.</p>		

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.

**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

acceptance.

- 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/ADA

The University of Southern Mississippi

Request for Bid #20-39

Spectroscopic Ellipsometer System

1. Background

The University of Southern Mississippi requires a variable angle spectroscopic ellipsometer for non-destructive, non-invasive determination of thickness and optical constants for thin and ultrathin films. The primary overarching requirement is the ability to perform variable angle spectroscopic ellipsometry in ultraviolet to near-infrared spectral regions, under various sample environmental conditions, and as a function temperature.

2. Technical Requirements and Specifications

- Wavelength range: The instrument should cover a spectral range of 245 – 1690 nm with a minimum of 660 wavelengths using a combination of quartz tungsten halogen and deuterium light sources (or similar light source technologies)
- Measurement spot size/focusing optics: The instrument standard spot size, as defined by the light beam diameter, should range from 2 mm – 5 mm but should also be equipped with focusing optics that enable spot size diameters down to 300 μm or better. Focusing optics should be modular enabling easy installation/removal.
- Goniometer: The instrument must be equipped with a computer/software controlled automated goniometer with variable angle of incidence ranging from 45° to 90° angle of incidence. An angular resolution of at least 0.005° is required. Standard sample mounting stage must be in a horizontal configuration and should accommodate samples up to 18 mm in thickness and 300 mm in diameter.
- Detection: The instrument should be capable of parallel detection and simultaneous measurement of all specified wavelengths preferably using CCD array technology for fast spectroscopic measurements. Pixel resolutions for the CCD array should be at least 1.6 nm for wavelengths < 1000 nm and at least 3.4 nm for wavelengths > 1000 nm.
- Performance: The instrument should enable fast (data acquisition time should range from 50 ms – 5000 ms) and accurate full range determination of Psi (Ψ) and Delta (Δ) values (0° – 90° for Psi and 0° – 360° for Delta) for measurements of general ellipsometry, % depolarization, and Mueller Matrix elements. Minimum performance must be met by 95% of the covered wavelengths when measured in straight-through empty beam (air) configuration: Accuracy: $\Psi = 45^\circ \pm 0.075$ and $\Delta = 0^\circ \pm 0.05$; $\tan(\Psi) = 1 \pm 0.0013$ and $\cos(\Delta) = 1 \pm 0.0000015$. Repeatability: $\delta\Psi = 0.015^\circ$ $\delta\Delta = 0.015^\circ$.
- Thickness precision: Precision of film thickness measurements should be at least 0.002 nm (1 standard deviation) on a minimum of thirty repeated measurements of SiO₂/Si at 65° angle and ten second averaging using a fixed sample position.
- The instrument must be capable of fully automated, computer-controlled sample alignment including tip, tilt, and z height. Sample alignment resolution should be at least

0.001°.

- The instrument must be equipped for interchangeable, modular sample environments with autodetection and identification of the accessory sample environment, including
 - Low volume (between 400 μ L – 600 μ L) variable temperature (with computer-controlled software integrated temperature control ranging from 10 °C – 40 °C) liquid cell with active heating and cooling. Angle of incidence for the liquid cell should be between 70° – 75°. A pre-heated liquid reservoir is preferred to ensure minimal variation in temperature within the liquid cell during liquid flow.
 - Variable temperature sample stage with computer-controlled software integrated temperature control ranging from a minimum of -70 °C to a maximum of 600 °C; heating and cooling must be active and responsive to a built-in temperature sensor allowing the design of custom temperature profiles; capability to accommodate samples up to 5 mm thick and 22 mm in diameter; sample stage must be designed to enable environmental purge with various gases;
 - Upgradable to include sample stages and/or cells compatible with quartz crystal microbalance and electrochemical measurements
- The instrument must be equipped with fully integrated, user friendly instrument operating and analysis software for dynamic, real-time data acquisition under variable temperature liquid or dry sample environments to enable growth rate analysis, multi-time analysis, and transition temperature determination.
- The instrument must include a minimum of 5-seat license for data analysis software.
- The instrument must include a computer for instrument control and operation.

3. Proof of Experience

Vendor must show pre-existing experience by providing the full reference of at least three (3) similar installations for an instrument with the specifications requested.

4. Installation/Training

Vendor must complete installation, which includes complete set-up of the system, onsite installation, acceptance test and operation training. Final machine location, electrical, and other connections will be made by the vendor. Vendor must agree to provide a minimum two (2) day training short course on site at the University on basic system setup and operation, and additional training including advanced hands-on data analysis for two (2) users to be performed onsite at the vendor or at a location of the vendor's choice. Telephone and online support must be included. All shipping, installation, and training costs must be included with the bid.

5. Warranty

Bidder shall submit a copy of the written warranty. The University is requesting a two (2) year extended warranty with full onsite service following installation, including parts, travel, and labor. The

warranty must include the following stipulation: Any manufacturer defects will be repaired or replaced at no cost including shipping to and from the customer's site.

6. Freight

The university is requesting F.O.B Destination shipping to University of Southern Mississippi Polymer Science Building in Hattiesburg, MS and all shipping costs to be included in the bid.

7. Copies

Bid responses should be submitted on the cover sheet provided. At least one (1) signed original copy of the bid response **MUST** be provided. The University **requires** a portable electronic virus/malware free copy (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.

8. 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). This State law authorizes the issuance of payment after receipt of the invoice and receipt, inspection, and approval of the goods and/or services. The intent is that goods and services must be received, inspected, and accepted prior to payment.

9. USM Terms and Conditions

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>.