



INVITATION TO BID # 482

Luzerne County Community College wishes to solicit bids for the work listed below. Bids must be received in the College's Purchasing Department (Building #5, Room 513) by Noon on Monday, April 16, 2018.

Luzerne County Community College reserves the right to waive any informalities, irregularities, defects, errors or omissions in, or to reject any or all proposals or parts thereof.

Under the Right to Know Law, the College is required to post to the PA Treasury Website all documents (BPO, PO, contract or agreement) for transactions valued at \$5,000.00 and above.

BID # 482 FTIR System to include PC and Software

<u>Item</u>	<u>Quantity</u>	<u>unit price</u>	<u>total price</u>
1. FTIR System to include PC and Software	1	_____	\$ _____

TOTAL COST \$ _____

Company Name _____

Address: _____

Typed Name and Title: _____

Signature: _____

Telephone:(__) _____ FAX:(__) _____

FTIR SYSTEM WHICH INCLUDES PC & SOFTWARE SPECIFICATIONS

. Spectrometer Design

- FTIR instrument with either Lithium Tantalate (LiTaO₃) or Deuterated Triglycine Sulfate (DTGS) detectors.
- Preferred -The spectrometer must utilize a rotary interferometer providing inherent immunity to mirror tilt and shear and require no scanning mirror dynamic alignment. Dynamically aligned interferometers are not acceptable due to their inherent poor parallelism and lack of stability, and corner cube designs are not acceptable due to their inherent alignment complexity.
- Instrument must offer a methane gas cell to provide accurate wavenumber calibration and lineshape standardization to for additional instrument-to-instrument stability.
- The system must be a sealed and desiccated optical unit covering the range 8,330 – 350 cm⁻¹.
- The sealed and desiccated enclosure must offer extended intervals between desiccant replacement, at least 3 years at 25 C and 90% relative humidity
- The system must offer a solid state laser in the interferometer system for higher longevity and lower maintenance
- The system must have a software controlled desiccant status indicator to allow the user to accurately monitor the status of the desiccated area
- The system must incorporate a vibration isolated baseplate
- The system must incorporate kinematically mounted, zero alignment optics which means that the component mounts precisely and unambiguously with zero play in its location. Pinned-in-place optics are not as precise and therefore are not acceptable.
- The source must be user replaceable from outside the instrument with on screen guidance to help maintain a lower cost of ownership.
- The mid -IR source must be pre-aligned and should incorporate electronic stabilization which changes the polarity through the source frequently to give the system higher sensitivity and increased performance.
 - Without stabilization, the hot-spot can move out of the field of view of the optical system. Although the source is still apparently working, the energy seen by the detector drops radically. Changes in the energy uniformity will cause the instrument's wavenumber scale to drift and the source to require replacement prematurely.
- The system must include optional automated optical filter accessory containing traceable validation materials to allow instrument performance verification in the Mid spectral regions.
- The system must include a multi-layer potassium bromide beamsplitter for the Mid-IR spectral region.
- The system must be controllable via TCP/IP interface or wireless configuration
- It must be possible to power the spectrometer from main electricity supply or external rechargeable battery pack or 12V car battery supply. The software control must incorporate scheduled instrument power on/off to better control power consumption

II. System Performance

- The vendor must demonstrate Wavelength accuracy at least $\pm 0.1\text{cm}^{-1}$ and spectral resolution of 0.5cm^{-1} .

III. Accessories and Upgrades

- The system must offer plug-and-go capabilities for a wide range of Mid sampling accessories
The system must offer third party Mid sampling accessories as a large range of sampling accessories provides the flexibility to measure almost any solid, liquid, powder or paste across the Mid-IR spectral range.
- The system must including a Diamond ATR crystal.
 - UATR accessory intelligence must encompass at least the following three points:
 1. Automatic recognition - as soon as the accessory is placed in the sample compartment the accessory is recognized. In addition to recognizing the accessory, the software must also:
 - Record the accessory unique number
 - Allow system suitability checks to be carried out.

2. Once locked into the sample compartment, the accessory must be ready to be used without any manual alignment necessary.
3. Supplied pressure sensor must record the amount of pressure applied to the sample and store this information as part of the data file.

IV. Software and PC Interface

- The instrument controlling software must run under Windows 10.
- A function that identifies potential spectral quality problems and notifies the operator is highly desirable.
- A mathematical spectral comparison with data filter options routine must be available.
- The ability to restrict access to the software via a password controlled login screen is essential. It is desirable to also allow users to use their Windows login to access the instrument software.
- A simple automated mode of operation for data collection and processing is desirable.
- An advanced spectral equations editor with syntax checker allowing custom data processing linking with data collection and printing is required.
- Beer's Law, PLS and PCR quantitative predictions must be available.
- A peak and/or trough find algorithm with user defined thresholds must be available
- The peak/trough find algorithm must return peak positions and ordinate values
- A single click automatic data-tune utility is required.
- All processes performed on spectral data must be stored in an audit trail.
- The ability to search a commercial library or group of discrete spectra on disc and report similar spectra found is essential. Library must be included.
- The user must be able to search using multiple directories on disk.
- Spectra must be able to be exported and saved in the following formats:
 - J-CAMP
 - ASCII
 - Data Manager

Graphics:

- The ability to add peak labelling, text labels and bitmaps to the graph is essential.
- The graph must allow the customization of fonts and colors on axes, the background, gridlines and the title. Size displayed line and symbols used for data points must be definable.
- The curve display should allow zooming, pan, autoscale, autorange, and cursor tools.
- When using the cursor, readout data should be available for all curves.
- The graph should have color-coded legends to allow easy identification of individual spectra.
- The graphical display should allow immediate wavelength and ordinate readout with the mouse cursor.
- A quick print facility with Preview function of the current graph must be available.
- The ability to save the display with current graphs loaded for re-loading on the next log-in is

desirable. Scanning:

- Graph must be able to be manipulated whilst data is being collected
- Ordinate modes must include
 - A
 - %R
 - %T
 - K-M
 - Log(1/R)
 - Energy
 - Arbitrary
 - PAS
- User should be able to setup sample tables to improve productivity when scanning multiple samples
- Sample tables should allow custom data entry fields for additional sample data
- The software should allow customizable instrument setup toolbars for simplified operation
- The software should allow automatic checking of spectrum quality to preset

criteria Processing:

- All processing functions should be fully integrated into the software.
The ability to automate processing into macros is essential.

**LUZERNE COUNTY COMMUNITY COLLEGE GENERAL CONDITIONS OF BID for NON-
CONSTRUCTION**

In addition to the enclosed material specifications, Luzerne County Community College (LCCC) requires all Bidders to comply with the following:

1. Bids must be sent by Certified Mail, return receipt requested, by shipping company that tracks deliver, or delivered personally to the Purchasing Department and **clearly identified as a bid, including the Bid Number**. Bids must be **sealed** and submitted on the enclosed "**Invitation To Bid**". Send bids to:

**PURCHASING DEPARTMENT
LUZERNE COUNTY COMMUNITY COLLEGE
1333 S PROSPECT ST
NANTICOKE PA 18634-3899**

2. Bids must be received prior to the bid opening stated on the "Invitation to Bid". The bids will be publicly opened and read aloud at that time. Bids received after that date and time will not be accepted. All Bidders are invited to attend bid openings.

3. A **CERTIFIED CHECK, CASHIER'S CHECK, BANK CHECK, MONEY ORDER, OR BID BOND** payable to LCCC, in the amount of ten percent (10%) of the total bid price must accompany each bid. In the event any Bidder shall upon award of the bid, fail to comply with the conditions guaranteeing the performance of the bid, such certified check or bid bond shall be forfeited to LCCC.

4. **NO TAX** should be included in the bid price, as LCCC is tax exempt.

5. Quality of goods and specifications must be acceptable to LCCC. **Equivalent** items will be considered UNLESS "No Substitutions" is listed on the Invitation to Bid. However, where substitutes are submitted, the Bidder shall so **indicate in its bid and furnish literature and specifications for the substitute items. Proof of equivalency is the responsibility of the Bidder.** If requested by LCCC, samples of equivalent items must be furnished to LCCC for evaluation. All samples must be supplied and returned at the Bidder's expense.

6. Bidders are requested to submit a bid on all items. A partial bid is acceptable unless "Partial bids will not be accepted" is specifically stated on the Invitation to Bid.

7. Bid prices shall **INCLUDE** all **SHIPPING AND HANDLING** fees. Delivery, assemble and install must apply to all items. Items must be shipped prepaid, FOB, Luzerne County Community College, 1333 SOUTH PROSPECT STREET, NANTICOKE, PA 18634.

8. Delivery shall be completed no later than **as listed in the specifications, and if not listed in the specifications, then no later than 30 days after the Purchase Order date.**

9. Questions concerning the material specifications, bid documents or interpretations of plans should be directed to: Len Olzinski who may be contacted in writing via email at lolzinski@luzerne.edu or by calling 570-740-0370_ no later than **one (1) day unless otherwise noted** prior to stated bid opening.

10. LCCC reserves the right to reject any or all bids or select a single item; LCCC reserves the right to waive defects in the bidding process.

11. LCCC will award the bid to the lowest responsible Bidder. Responsible Bidder is defined as "in the reasonable discretion of the College based upon considerations to include promptness, faithfulness and the capacity and ability to do the work according to plans and specifications, measured by, among other things, the quality of previous work, record of completing projects on time, history of payments to subcontractors and suppliers, maintenance of permanent place of business, adequacy of equipment and plant to do the work, technical experience and whether the Bidder has a solid financial basis to guarantee contract completion."

Questions concerning any requirements of a bid may be directed to Len Olzinski, Director of Purchasing, at (570) 740-0370.

INVITATION TO BID

Notice of the Purchasing and Conflict of Interest Policies in place at Luzerne County Community College ("LCCC")

Each owner/operator/individual/officer submitting a bid or for whom a bid is being submitted on behalf of the owner (each being referred to as a "Provider") to LCCC certifies that he/she/they are not a spouse, child, parent, brother/sister (each being referred to as an "Immediate Family Member") of any LCCC employee or Board of Trustee member at LCCC who owns more than a one (1%) percent ownership interest in the Provider/Provider's business.

If the Provider is an Immediate Family Member, according to College Policy and Procedure, disclosure must be made, and LCCC may decline entering into a business relationship with the Provider. Disclosure shall be made in writing at the time of submitting the bid to the Director of Purchasing.

Violations of any of the policies or procedures may result in rejection of the bid. Additionally, LCCC may have the right to recover damages suffered by LCCC in obtaining an alternative bid, which damages may include, but are not limited to, consequential damages and reasonable attorney's fees.

Copies of these policies and procedures are available from LCCC upon request.

Luzerne County Community College does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs or activities. For a complete copy of the LCCC non-discrimination policy, contact the Human Resources Office at 800-377-5222, extension 7235. Inquiries may be directed to the Title IX Coordinator, John Sedlak, Dean of Human Resources, LCCC, 1333 South Prospect Street, Nanticoke, Pennsylvania, 800-377-5222 extension 7234 (jsedlak@luzerne.edu). Inquiries related to accessibility services for students may be directed to the Section 504 Coordinator, Rosana Reyes, VP of Student Development and Enrollment Management, LCCC, 1333 South Prospect Street, Nanticoke, Pennsylvania, 800-377-5222 extension 7423 (rreyes@luzerne.edu).

Statement of No Bid Submittal

If your company does not intend on submitting a Bid, please complete and return this form prior to the date shown for receipt of Bid to the following:

Bid # - 482
Luzerne County Community College
1333 South Prospect Street
Nanticoke, PA 18634
Attn: Len Olzinski
lolzinski@luzerne.edu

We, the undersigned have declined to propose on the above referenced Bid for the following reasons:

- Scope of Work or Terms and Conditions are too "restrictive." (Please explain below)
- Unable to meet requirements
- Bid was unclear (Please explain below)
- Insufficient time to respond
- We do not offer this type of service or equivalent
- Current workload would not permit us to perform
- Unable to meet insurance requirements
- Other (Please explain below)

Name _____ Title _____

Company _____

Address _____

Telephone _____ Fax _____

Signature _____

Date _____