

Mississippi State University Notice of Proposed Sole Source Purchase

190-18

Mississippi State University anticipates purchasing the item(s) listed below as a sole source purchase. Anyone objecting to this purchase shall follow the procedures outlined below.

1. Commodity or commodities to be purchased (make, model, description):

UIC CM 250 TC/TIC/TOC Auto-Analyzer Coulometric Detection System with Autosampler and Furnace

2. Explanation of the need to be fulfilled by this item(s), how is it unique from all other options, and why it is the only one that can meet the specific needs of the department:

This instrument provides coulometric detection of very high carbon content materials such as soot and other combustion byproducts. The UIC CM250 is the only instrument capable of speciating between Total Inorganic Carbon (TIC) and Total Organic Carbon (TOC) using a coulometric detection system and combustion as well as acidification processes. The coulometer saves laboratory processing time not only because the coulometer precludes the need for standards preparations and processing user calibration curves, but also because it provides the acidification process in line on the unit, as opposed to all other available instruments, which require heavy laboratory preprocessing time for TIC samples. Not only does this unit remove the need for intensive and voluminous glassware cleaning and sample preparation, but its multi-program furnace allows multi-region programming, allowing a secondary measure of TOC/TC. The capability of the autosamplers allows 8 to 19 minutes per sample for combustion analysis and 5- 7 minutes for acidification (with a 7-minute cleaning cycle between each). This exceeds the production capacity other units, where the combustion analysis would take roughly an hour per sample due to furnace cool time.

For our analytical determinations, this instrument is required to have the following specifications and the Coulometric Carbon Analyzer from Waver Armstrong is the only unit that will meet our needs:

An instrument capable of an absolute carbon detection method with linear detector response (one-to-one relationship of carbon atoms to response giving).

An instrument capable of providing accurate results without requiring calibration over the full analytical range.

A system with a coulometric titration unit, does not overload with high carbon content

Instrument with an analytical range of 10 µg carbon to 100 mg carbon per sample,

Instrument capable of an accuracy of $\pm 1.25\%$ of the theoretical value of the standard and precision maximum of 0.4%

3. Name of company/individual selling the item and why that source is the only possible source that can provide the required item(s):

Waver Armstrong at UIC, Inc is the manufacturer of the item. No other distributors exist for this item.

4. Estimated cost of item(s) and an explanation why the amount to be expended is considered reasonable:

For the unit and accessories, the price provided is \$79,556.11. This is a reasonable amount for an instrument with the requirements listed herein because this price quotation is comparable with other units whose specifications do not meet these requirements.

5. Explanation of the efforts taken by the department to determine this is the only source and the efforts used to obtain the best possible price:

Efforts were made to verify that no alternative instrument exists that is capable of both inorganic and organic determination in the same analytical process. No comparable instruments were found. UIC is the only manufacturer of this coulometric detection system in the U.S.

This sole source proposal document has been prepared since no comparative or competitive quotations which meet the scientific and technical requirements for our research needs can be obtained. We acknowledge state laws requiring competition and certify that all attempts to determine any potential sources have been diligently undertaken. No alternate source for this item has been identified since no competitor has units with these functionalities. A thorough search was performed for units capable of all of these requirements.

Any person or entity that objects and proposes that the commodity listed is not sole source and can be provided by another person or entity shall submit a written notice to:

Don Buffum, CPPO
Director of Procurement & Contracts
dbuffum@procurement.msstate.edu

Subject Line must read "Sole Source Objection"

The notice shall contain a detailed explanation of why the commodity is not a sole source procurement. Appropriate documentation shall also be submitted if applicable.

If after a review of the submitted notice and documents, MSU determines that the commodity in the proposed sole source request can be provided by another person or entity, then MSU will withdraw the sole source request publication from the procurement portal website and submit the procurement of the commodity to an advertised competitive bid or selection process. If MSU determines after review that there is only one (1) source for the required commodity, then MSU will appeal to the Public Procurement Review Board. MSU will have the burden of proving that the commodity is only provided by one (1) source.