

UNIVERSITY OF MISSISSIPPI

Notice of Intent to Certify Sole Source

SS 061

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

Commodity or commodities to be purchased (manufacturer, model, description):

TA Instruments DSC25 System Discovery Refrigerated Cooling System

The need to be fulfilled by this item(s) and why it is the only one that can meet the specific needs of the department:

The TA Instruments DSC25 is the only instrument available that includes the unique combination of the following features which are essential for the research work. 1. Instrument performance: a. Temperature Range of -180 to 725 °C (dependent on cooling accessory) b. Temperature Accuracy: $\pm 0.1^{\circ}\text{C}$ c. Temperature Precision of $\pm 0.01^{\circ}\text{C}$ d. Enthalpy Precision (based on metal standards) of $\pm 0.1\%$ e. Maximum Calorimetric Sensitivity of $1.0\ \mu\text{W}$ f. Baseline Curvature: (-50 to 300°C) of $<100\ \mu\text{W}$ g. Baseline Repeatability: $<40\ \mu\text{W}$ h. Baseline Accuracy: $\pm 75\ \mu\text{W}$ i. Baseline Noise: (-50 to 300°C) of $<0.2\ \mu\text{W}$ j. Indium Response Ratio: ≥ 8 2. The DSC25 is of the "Heat Flux" design whereby the sample and reference are measured in the same furnace, on separate stages. This decreases baseline curvature and adds baseline accuracy. This increases the sensitivity to weak transitions. 3. The DSC25 employs area temperature detectors directly beneath the sample and reference positions, not platinum resistance thermometers or thermopiles. This allows faster signal response, flatter more reproducible baselines, superior sensitivity and resolution, and improved data precision 4. The DSC25 furnace is constructed of silver, with platinel heater windings. The benefit of this design is in the uniform thermal environment, and long furnace lifetime. 5. The DSC25 includes a third thermocouple, thermally isolated from the sample and reference, to act as an objective reference point for temperature control. 6. The DSC25 includes modular, temperature controlled, easily user replaced DSC cell. 7. The DSC25 includes an integrated purge gas delivery control accommodating two simultaneously installed gases. The purge gas flow rate is programmable within operating software, and deliverable as a saved signal in the data file. Gas delivery control must also allow for automated switching between the two gases during an experiment. 8. The DSC25 purge gas is pre-heated prior to entering the sample chamber and sweeps across sample for optimal purge interaction with sample. By design, all oxygen is purged from "dead spaces" of cell; reliance on diffusion of purge gas is avoided. 9. Modulated DSC[®] is standard on the DSC25. 10. The DSC25

data files contain measured sample temperature, not calculated temperature. This allows the user to know what temperature the sample is actually at during different heating rate experiments and makes for accurate and precise transition temperatures. 11. The DSC25 has up to five points for temperature calibration to provide greater temperature accuracy over wide temperature ranges. 12. The DSC25 TRIOS software is unkeyed, and available on-line (at no charge), to allow for unlimited installations. The data file format allows easy sharing/transfer of data files as individual electronic documents, which are readable by the same data analysis package.

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

TA Instruments - Waters L.L.C. 159 Lukens Dr. New Castle, DE 19720 USA is the sole manufacturer and distributor for the DSC25 system. The equipment is not available through any other distribution channels within the United States. TA Instruments is the only organization in the United States qualified to install and service this equipment.

Why the amount to be expended for the commodity is reasonable:

Considering our research requirements, we have performed an extensive search online and discussed with the sales representatives from the companies providing the DSC systems. We found that the TA Instruments systems are the only instruments to meet our technical requirements, and pricing was found to be reasonable in the market given the additional capabilities of the instruments.

Efforts that the agency went through to obtain the best possible price for the commodity:

Only TA Instruments manufactures systems with capabilities that will meet our research needs. We compared the performance with regards to the research and prices of two systems, DSC 25 and DSC 250. DSC 25 and 250 systems were made available in Department of Pharmaceutics and Drug Delivery at University of Mississippi by TA instruments to test our research samples. We tested the DSC 250 and DSC 25 system by running our drug-polymeric formulation samples and evaluated the results. The analysis of sample results found that the DSC 25 system is suitable for our research in the area of drug-polymer formulation. Thus, we have selected the lower priced DSC 25 system over the more expensive DSC 250 which suffice our need and requirement of research.

Submission Instructions and Format of Response from Objecting Parties:

Interested parties who have reason to believe that the item(s) above should not be certified as a sole source should provide information in the following format for UM to use in determining whether or not to proceed with awarding the Sole Source purchase.

1.1 Interested Party Information

- 1.1.1 **Contact Name, Phone Number, Address and email address**
 - 1.1.2 **Company Website URL, if applicable**
- 1.2 **Objection to Sole Source Certification**
 - 1.2.1 **Interested parties must present specific objections to the Sole Source certification using the criteria listed above.**
 - 1.2.2 **A statement regarding the Interested Party's capabilities as related to this Sole Source Certification Request.**
- 1.3 **Comments will be accepted at any time prior to Tuesday, July 11, 2017 at 3:00 pm (Central Time) to Katherine Jones at kajones4@olemiss.edu (with Cc: to purchase@olemiss.edu) at The University of Mississippi Procurement Services Department, 164 Jeanette Phillips Drive, PO Box 1848, University, Mississippi 38677. Responses may be delivered by hand, via regular mail, overnight delivery, or e-mail. The envelope or email should reference the sole source number. UM WILL NOT BE RESPONSIBLE FOR DELAYS IN THE DELIVERY OF RESPONSES. It is solely the responsibility of the Interested Parties that responses reach UM on time. Interested Parties may contact Katherine Jones to verify the receipt of their Responses. Responses received after the deadline will be rejected.**

If after a review of the submitted notice and documents, UM determines that the commodity in the proposed sole source request can be provided by another person or entity, then UM will withdraw the sole source certification and submit the procurement of the commodity to an advertised competitive bid or selection process.

If UM determines after review that there is only one (1) source for the required commodity, then UM will appeal to the Public Procurement Review Board for approval to purchase.