

## Survey of the Thermal Analysis Community's DSC-Related Reference Material Needs

To evaluate and focus NIST's DSC-related reference material program efforts, we invite you to provide feedback regarding your experience with and requirements for DSC calibration materials. Your participation would be greatly appreciated. This brief survey should take 5 minutes to complete. Please return completed survey to [tara.fortin@nist.gov](mailto:tara.fortin@nist.gov).

1. Respondent Information (Please fill in unless you prefer to remain anonymous):

First Name:	
Surname:	
Organization/Company:	
Address:	
Address (continued):	
City:	
State/Province:	
Postal Code:	
Country:	
Email:	

2. Do you utilize a DSC in your work?  Yes  No

3. Do you use reference materials for instrument calibration?  Yes  No

If yes, please list materials utilized:

--

If no, please skip to question 6.

4. Have you purchased reference materials from NIST?  Yes  No

5. Please specify the primary motivation(s) for your choice of reference material supplier:

- Material selection/availability
- Reliability of certification values
- Price
- Other

If other, please specify:

--

NIST is investigating the potential for a non-toxic, low-temperature calibration material to replace the discontinued SRM 2225 Mercury.

6. Would a low-temperature (approx. -64 °C) reference material be useful?  Yes  No

NIST currently offers Standard Reference Materials (SRMs) and Reference Materials (RMs). SRM documentation provides “certified” values that have been determined via a primary method (or via multiple independent methods) and typically have very low assigned uncertainties. RM documentation provides “reference” values that have been determined via single, non-primary, test method (or via an interlaboratory study or some other collaboration with outside laboratories) and typically have higher assigned uncertainties.

7. Would an RM be sufficient to meet your calibration material needs?  Yes  No

If no, please explain:

8. In general, what level of uncertainty is acceptable for a reference material intended for temperature calibration?

- $\leq 1.0$  °C
- $\leq 0.5$  °C
- $\leq 0.1$  °C
- Other

If other, please specify:

9. In general, what level of uncertainty is acceptable for a reference material intended for enthalpy calibration?

- $\leq 2$  %
- $\leq 1$  %
- $\leq 0.5$  %
- Other

If other, please specify:

10. Are there any reference materials that you would find particularly useful but are currently unavailable from any supplier?

11. Other comments?

**This collection of information contains Paperwork Reduction Act (PRA) requirements approved by the Office of Management and Budget (OMB). Notwithstanding any other provisions of the law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with, a collection of information subject to the requirements of the PRA unless that collection of information displays a currently valid OMB control number. Public reporting burden for this collection is estimated to be 5 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information. Send comments regarding this burden estimate or any aspect of this collection of information, including suggestions for reducing this burden, to the National Institute of Standards and Technology, Attn: Tara Fortin at tara.fortin@nist.gov**