

THERMAL APPLICATIONS NOTE

DSC Cell Cleaning

Regular cleaning of the DSC cell helps maintain the performance of the cell. During regular operation, sample contaminants (such as carbon) may deposit on the constantan disk causing baseline drift and irregularities. To remove these contaminants, the DSC cell should be periodically cleaned. The following procedure describes the proper cleaning method:

1. Brush the constantan disk of the DSC cell very lightly and in a circular motion using a fiberglass brush (P/N 263586-001). The cell should be at room temperature. Remember that the constantan disk is only 200µm thick.
2. Remove any dislodged residue from the cell using a low pressure jet of air or nitrogen.
3. Heat the empty DSC cell to 50°C above the highest normal operating temperature or 550°C (whichever is lower) at a rate of 50°C/minute while purging the cell with 100 to 150 ml/minute of air. Hold at the upper temperature for 5 minutes.
4. Cool the cell back to room temperature. Rebrush the constantan disk very lightly and in a circular motion as before. Remove any residue using a gentle jet of nitrogen or air.
5. Switch back to the appropriate purge gas, and adjust the purge rate to 50 ml/minute (25 ml/minute for Dual Sample DSC), for normal operation.
6. Recalibrate the DSC cell constant.

Note: Do not use any solvents to clean your DSC cell. Solvent vapors could get trapped under the constantan disk and become difficult to remove. If this occurs, the DSC cell should be heated in a vacuum oven to remove the trapped solvent.

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