

TA instruments DSC On/Of Prodedure

Note....All persons wanting to use Q2000 should contact DR MCcoy . Contact informations is listed outside all laboratories in Jones 130. All persons wanting to use the Q2000 DSC must be trained before using the instrument independtley. These instructions are not a subsritute for 1-on-1 training with a lab technician.

Following are the steps to follow to operate the matchine.

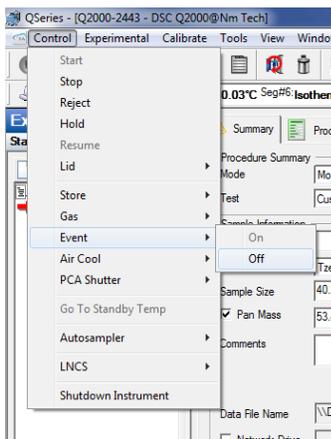
1. Sign into log book
 - Make sure you put the date, your intials, model , start time etc..



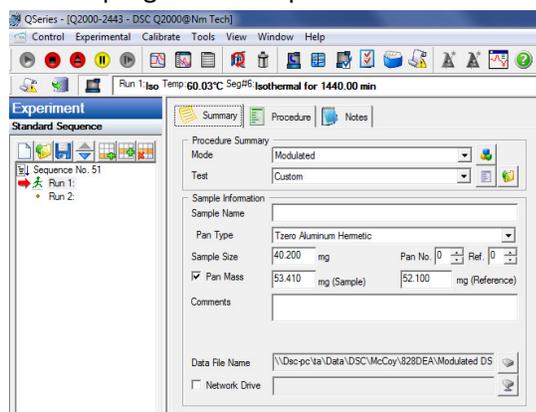
2. Turn on chiller located behind Q2000, green light indicates on position.
3. Turn on N₂ purge gas for Q2000. (anti clock wise)
 - Regulator should read 20-25 CFH.



4. Open TA analyzer program and Q2000 interface on desktop
5. Under file, select event On and wait 10 minutes for flange temperature to be -80 Oc to -90 Oc



- 6 Using the TA interface program the desired experiment.
 - Put all information as require under summery and click apply.
 - Put the program under procedure and leave notes if necessary under notes and save



- 7 Load the sample on the DSC properly by hitting apply on the touch screen to open and close the lid.



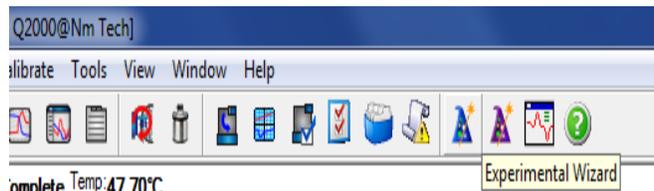
- 8 Press the green start button to start your experiment.
 - ***Please don't start an experiment if the flange temperature is not-80 Oc or the purge gas flow rate is not 50ml/min***
- 9 After completion of experiment, check the sample been properly unloaded and the DSC has returned to set temperature (40 Oc) and put the sample in its appropriate bag



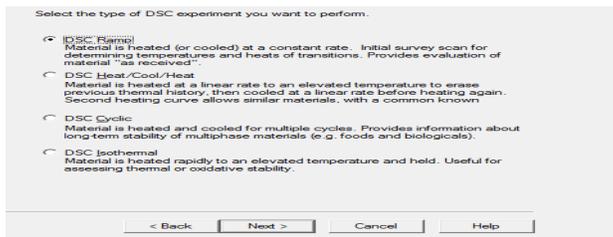
- 10 Under file select event OFF (opposite to what we did when turning on)
- 11 Turn off the N₂ purge gas.(clock wise)
- 12 Sign out of log book.

Convective DSC Temperature Ramp

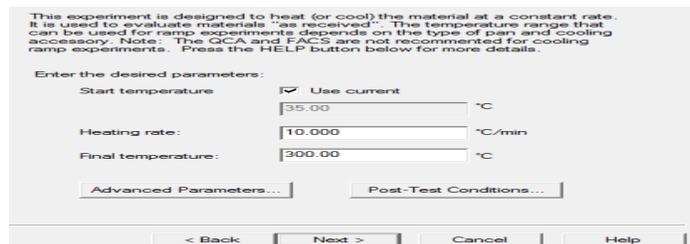
1. Click the experimental wizard on the top corner.



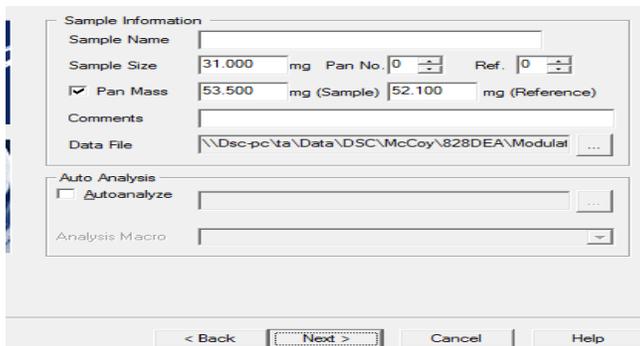
2. Select the type of DSC experiment you want to perform. In this case select **DSC Ramp** and press next.



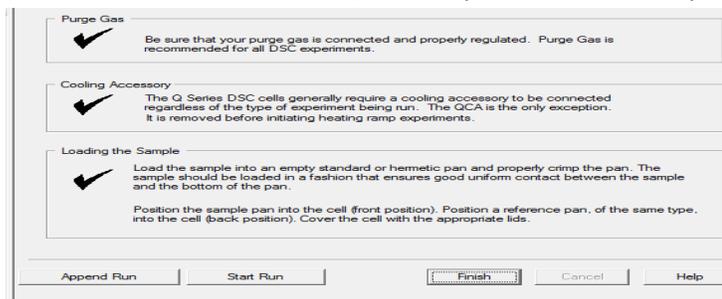
3. Enter the desired parameters and click next to proceed



4. Fill all the sample information and click next to proceed.

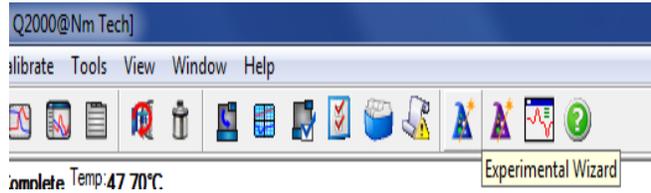


5. Click finish and follow the ON/Off DSC procedure to start your experiment.

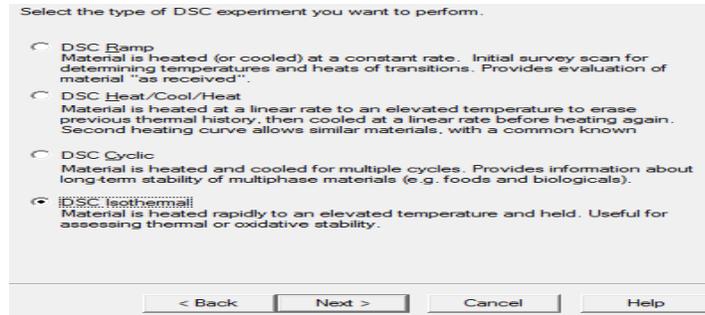


Convective DSC Isothermal

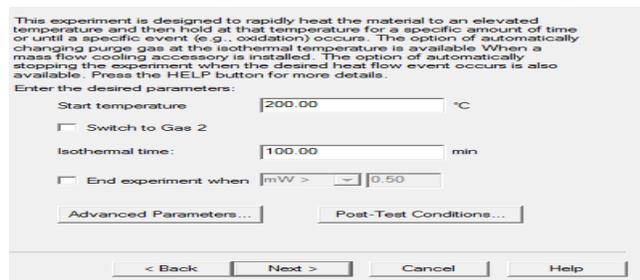
1. Click the experimental wizard on the top corner.



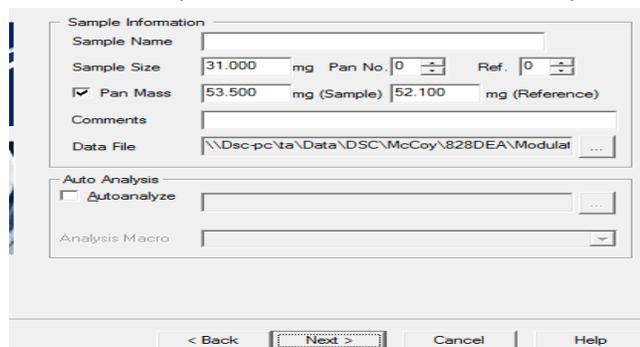
2. Select the type of DSC experiment you want to perform. In this case select **DSC Isothermal** and press next.



3. Enter the desired parameters and click next to proceed.



4. Fill all the sample information and click next to proceed.



5. Click finish and follow the ON/Off DSC procedure to start your experiment.

Using the Perkin Elmer AD4 Balance

- The hang-down wives are **very** fragile and cost \$150 each to fix.
- Make sure the pans are resting on the supports **before** loading or unloading.
- Weigh **only** DSC pans (either loaded with a sample or empty)
- **Never** weigh bare samples



DSC Pans and Lids combination

- Full blue strip goes with blue-black strip.
- Full black strip goes with black and blue-black strip
- Blue –black strip goes with full black and blue strip
- The picture below on the right is used to seal the pan to the lid by giving it pressure.

