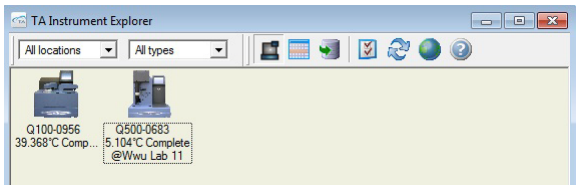
Rev. 01/2019 KTM

# DSC Standard Operating Procedures

## (Do Not Forget to Login to FOM)

1) Open TA Instrument Explorer


Select Q100-You may have to hit refresh several times until it is available.




2) Once the DSC instrument control window opens, select Control>Event>On to activate chiller

**3) Load DSC pans**

a. Place 1-5 mg of sample in pan, filling the bottom

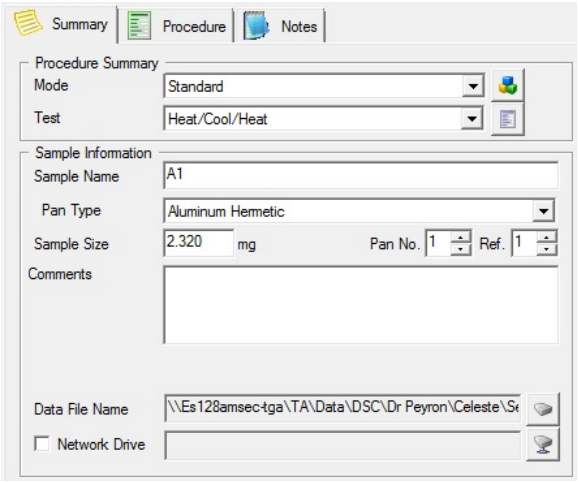
b. Record mass of sample

c. DO NOT OVERFILL PANS!

d. Seal pan or place lid on as needed.

**4) Set-up Experiment**

**a. Summary Tab**




i. Select test mode: Normally Heat/Cool/Heat

ii. Enter sample name

iii. Pan type = Aluminum Hermetic or Aluminum

iv. Select proper sample and reference pan numbers

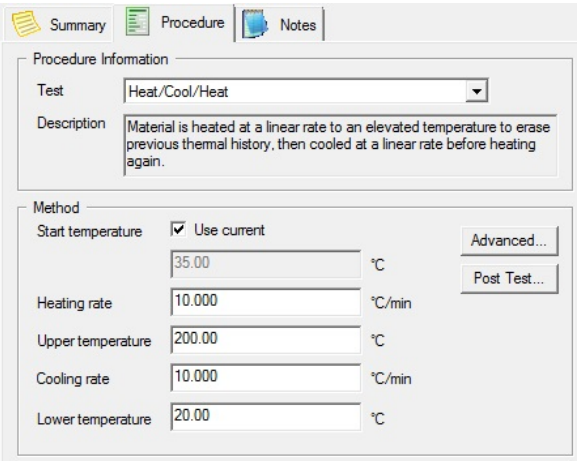
v. Enter mass into sample size

vi. Enter comments (optional)

vii. Enter file name and **select save location→Files must be saved in the C:/TA folder or they won't save**


viii. Select/Create folder in network drive in DSC folder

**c. Procedure Tab**




i. Review test type (Heat/Cool/Heat)

ii. Set appropriate parameters

**d. Notes Tab (optional)**

i. Enter operator details

ii. Enter extended comments

iii. Never change flow rates!

**e. Append Runs**

i. Click append near bottom of instrument panel to add a run

ii. Add one run per sample pan (New runs inherit appended run settings)

iii. Change relevant settings for each run (i.e. sample and file names)

**5) Press play to start**

**6) Clean-Up**

a. The DSC disposes of sample pans automatically; reference pans can be used again

7) Close software.

8) Save data files onto thumb drive and/or import files into TA Universal Analysis.

**Log off FOM when finished!**

For help or concerns contact the lab manager:

Kyle.Mikkelsen@wwu.edu
(360) 650-4280

# Instrument Hazards and Best Practices: DSC

This document will cover the inherent hazards when utilizing this piece of equipment as well as the best practices and procedures to avoid danger. These hazards will not include basic things that may be included in the basic safety training document that each user has attested to have reviewed at fom.wwu.edu/documents

**Lab coats are to be provided by the user unless special hazards exist in which case they are located at the PPE station.**

**Hazards:**

- Chemical exposure
- Extreme Temperatures (-90 – 450 °C)

## 1. Required PPE

Appropriate laboratory attire is required at all times in the AMSEC laboratories. Whenever chemicals are being used, an additional requirement of a lab coat is required. Lab coats are to be provided by the user.

Whenever a user is in the AMSEC labs, the minimum requirement for eye protection is wrap around impact glasses. Anytime liquid chemicals are present in the same room as the user without a direct barrier, all users in the lab must wear chemical splash goggles. Splash goggles must be approved by State of Washington Administrative Code (WAC 296-155-215).

If chemicals being used are considered toxic, caustic, corrosive, flammable solvents, carcinogenic, mutagenic, or teratogenic, a minimum of disposable nitrile gloves is required. Avoid chemical transfer by taking off gloves when using anything other than the chemical(s).

## 2. Extreme Temperatures

The DSC is designed to operate between -90 and 450 °C. This means that the furnace could be near or at those temperatures at any given time. The best way to ensure that no damage is caused by these temperatures is to simply avoid contact with the furnace. There is no situation is which it is necessary to come into contact with the furnace. Avoid allowing anything that may be degraded, damaged, or made more flammable to come into contact with the furnace at all times.