You must be a “Qualified Self-User” to operate this instrument independently. You must be on the labs “Instrument Reservation Schedule” before touching the instrument for any reason. Any & All problems, STOP, Post a note on the instrument and send an email to mtim@mit.edu immediately. Do not perform any maintenance, Do not install any software, Do not adjust anything.

**Instrument Hazards:**
Liquid Helium
Electrical: 110-120V, 60Hz
Noise: Loud He Compressor

**Required Apparel:**
Safety Glasses, Hearing Protection, Gloves when handling sample rods/holders.

**CORAL:**
Reserve The instrument using CORAL.
Engage the instrument using CORAL when you enter the lab.
Disengage CORAL when you are leaving the lab.
Report all problems immediately to mtim@mit.edu.
Checkout the instrument out when you arrive
Multiview Software is open
Field: 0
Temperature: 300k
Chamber pressure: Below 20torr (Sealed)
Evercool Temperature: Below 5k
Helium Compressor – Running (Loud)
He Gas Cyl >1000psi
No Sequences are running.

Important: Potential Instrument Damaging Actions
If the Helium Compressor shuts off, Re-Enable it immediately.
If you lose your sample in the chamber.
Send an email immediately to mtim@mit.edu if you have any problems.

Samples:
If you leave your sample in the chamber when it is the next users turn:
Your sample will be removed and placed in the sample old sample bin.
If your sample is on a sample holder it may be removed.

Sample Holders:
Brass
Quartz
Powder - 4096-388
Liquid - 8505-013
Gelatin Caps
Straws

Sample Mounting:
Varnish
Duco Cement
Kapton Tape
Acetone
Iso Propanol
**Abbreviated Operation Procedure**
Mount your sample.
Load your sample.
Create a sequence.
Run Sequence.
Unload Sample.
Purge and Seal the chamber.

**Finishing**
Samples
Unload your sample or leave clear instructions for the next user.
The standard operation is that the next user will remove your sample.

Verify
Multiview Software is left open
Field: 0
Temperature: 300k
Chamber pressure: Below 20torr (Sealed)
Evercool Temperature: Below 5k
Helium Compressor – Running (Loud)
He Gas Cyl >1000psi
No Sequences are running.
Cleanup before leaving !!!

**Specifics**
[https://mtim.mit.edu/MPMS](https://mtim.mit.edu/MPMS)

**Web Description/Theory**

**Data Formats**

**Computing**
Internet Access
**USB**

**Saving data**
Walk away with a copy of any data that is important to you. Do not expect your data to be saved on this computer.

**Computer Restarting**
Name: (blank)
Password: (blank)

*If an error message is encountered.*
If the error persists:
Stop using the instrument (prevents possible damage).
Report the problem to mtim@mit.edu immediately.

**Utilities:**
Electricity (wall).
Helium Gas Cylinders
Process Water
Chiller

**Emergency Shutdown:**
See help files

**Restart after an emergency:**
See help files

**Training:**
Introduction to the MPMS3 – You tube video:
https://www.youtube.com/watch?v=SdirI2kkoO8&ab_channel=QuantumDesignUSA

Quantum Design Pharos Digital Library – Register for free account:
Reservation Rules:
Non-staff agents may only reserve a total of 48 hours prime time on this equipment for any member and project.

Non-staff members may only make reservations 14 days in advance for all other pieces of equipment. Staff members may make reservations at any time. 14 days means that the end time of the reservation falls within the 14 days.

Non-staff agents may only reserve a total of 48 hours on this equipment for any member and project.

This policy limits the start time of reservations to occur only at 7:00AM, 5:00PM and 0:00AM.

This policy limits the end time of reservations to occur only at 7:00AM, 5:00PM and 0:00AM.

Non-MIT Users may only enter the lab from 9am-5pm.