



Principal Investigator:

Foustoukos Dionysis (Rm. 241 / x8968)

Emergency Information:

Staff Member: 240-274-5646 / 301-565-4749

BBR (Gary Bors): 202-510-8577

All other emergencies: 911

Secondary Contacts:

Person 1 (R123, x8900)

Purpose:

This laboratory contains an Internally-heated Pressure Vessel to support experiments at pressures up to 10,000 bars and temperatures of 1200 °C.

All laboratories and facilities on the Broad Branch Rd. campus are controlled areas. Specific training must be completed and documented before working in this laboratory / facility.

1. IHPV operation

Any personnel who use this device must be trained in their safe use. This includes training on furnace operation, pressurization, sample loading ...etc.

Objective Hazards: High pressure, High Temperature, Gas pressure medium

Rules:

- Never pressurize above 10000 Bars
- Do not modify any aspect of this apparatus
- Never Stand in front of vessel
- Use protective steel shield

2. Compressed Gasses, storage, and disposal

Appropriate regulators are required for compressed gasses.

2.1 Storage of new Tanks

Storage of Tanks is prohibited.

2.2 Securing in-use Tanks

All in-use tanks must be securely attached outside the Lab. The lab uses Argon as pressure medium.

2.3 Return of empty or long-term non-use tanks:

Empty tanks are to be labeled "EMPTY" and returned to the loading dock storage area for pickup. Specialty gasses from suppliers other than Roberts or Airgas will require special arrangements for pickup.



3. General Laboratory Safety Features:

3.1 Eyewear-protection

Required for during operation of any instrumentation in this laboratory

3.2 Protective clothing

Use of lab coats is required.

Thermal protective gloves are required when handling potentially hot reactor components.

3.3. Sample storage and labeling

All samples must be labeled in such a way as to be immediately identifiable. The use notebook numbers or other schemes is not sufficient information. Unlabeled vials constitute a serious offense and can lead to loss of laboratory privileges.

Long-term storage of samples or chemical is prohibited.

4. Off-hours Operation

4.1 Any Experiments

In order to perform any high pressure experiments after hours requires that a second person must be identified who is 1) in the building during such work 2) made clearly aware of the scope of the proposed work and the potential danger, and 3) is willing to check in at a frequency not less than once an hour to ensure safety.

4.2 Instruments

The use of instruments after hours is not restricted. The repair of instruments after hours is subject to the same restrictions as after-hours chemical processing.

5.0 General Lab Safety Features and Policies

Keep laboratory doors locked when laboratory is unattended and during off hours. Doors may be left open only when you are actively using the facility.

Laboratory User

I agree that I have thoroughly read and understood this laboratory safety document. I have access to this safety information at all times when I am working. I have been trained to be able to identify the hazards to which I may be exposed and to follow the work practices and procedures discussed in this document. I certify that I will conduct my research work safely and that I will be responsible for following stated safety policies.

User Name (Print)

User Signature

Date



Principal Investigator

I certify that the information presented in this safety document is accurate and complete. I agree to comply with all safety procedures and to fully train and supervise all researchers under my direction.

PI Signature

Date