

Standard Operating Procedure(SOP)
Verdi Visible 532nm 5W Laser

Located in Bossone 533, in the laser room

First Time Use

1. Identify location of safety goggles on storage shelf above optics storage drawers(behind optical table)
2. Read Drexel University Laboratory Safety Manual
3. Read the operation procedure in Coherent Laser Manual, located beneath the laser control box.
4. Complete initiation training protocol from senior laboratory personnel.
5. **WRITTEN AUTHORIZATION FROM PROFESSOR FONTECCHIO IS REQUIRED TO OPERATE THE LASER**

Safety Equipment

1. 532nm blocking goggles(orange color) for EVERYONE in the room.
2. Disposable gloves for complete coverage
3. Lock the laser room door

Safe Exposure Procedure with External Shutter

1. Put on safety equipment as outline above.
2. Make sure everyone in the room has on safe goggles.
3. Warn everyone that the laser is going to be on and make them aware of the experiment taking place.
4. Turn key to 'Laser ON' position. Turn on external shutter controller, located next to the power supply.
5. Make sure power level is at 0.01W(lowest) setting for alignment.
6. Open the internal and external shutters and check the laser path on the optical table. Make sure to close both when finished checking the optical path.
7. Program external shutter timing characteristics, leave cursor on "Time Closed" setting.
8. With both shutters CLOSED, set exposure power via "Set Power 1" or "Set Power 2".
9. With laser goggles on, press "Sutter Open" on laser power supply to begin.
10. Wait until "current" reading on laser power supply is done fluctuating then press "enable" on shutter controller to begin exposure.

Safe OFF Procedure

1. Make sure both shutters are closed(Shutter Open light on laser supply is off)
2. Set power to 0.01W(make sure "Set Power 1" and "Set Power 2" lights are off)
3. Turn laser key to 'Standby' position and remove key form laser. Turn key in shutter controller to "off" position(Do not remove).
4. Fill out information in laser log and return safety goggles to storage area.

NOTE: You and everyone else in the room must be wearing laser safety goggle at all times while the laser is in use. Laser light can cause blindness.

Emergency Contacts: Public Safety: x2222	Dr. Adam Fontecchio University Crossings 155 215-895-2047	Wayne Hill Director of Lab Services Commonwealth 219 215-895-4952 215-895-4846
--	--	--

Senior Personnel: Ben Pelleg, Bossone 404, 215-895-2909
Alyssa Bellingham, Bossone 404, 267-844-3536
Jamie Kennedy, Bossone 404, 215-895-2909

This document is available online at <http://drexelnanophotonics.com/sop/>