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Revision 00

Glove Box Operations at the wide Angular Range Chopper Spectrometer (ARCS)

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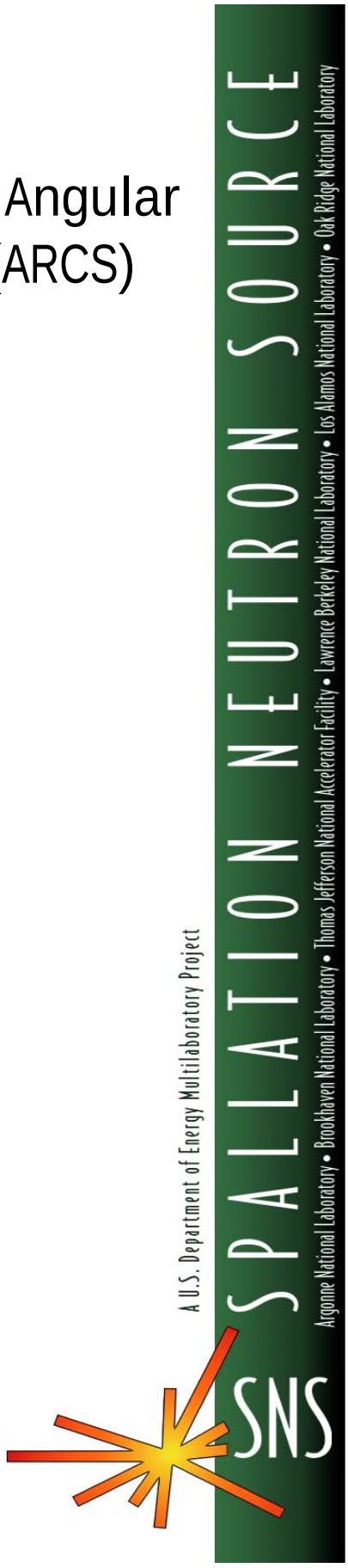

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Approved By

Lead Instrument Scientist	Date
TOF Group Leader	Date
NSSD ES&H/Operations Manager	Date

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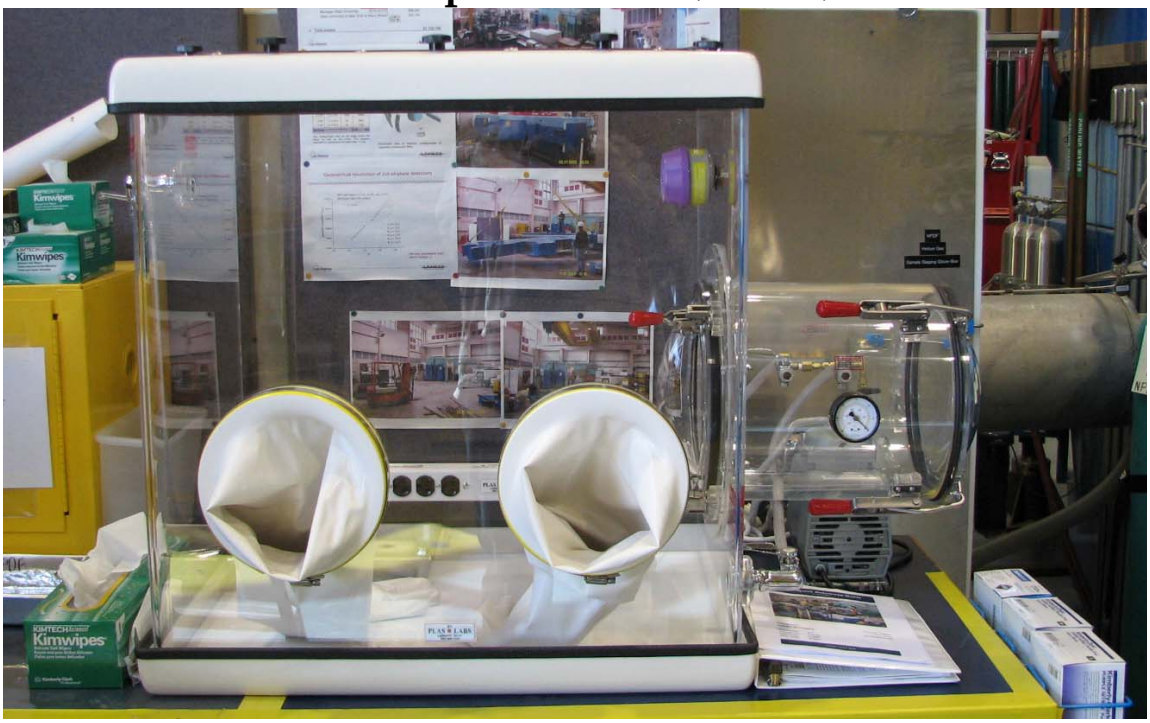
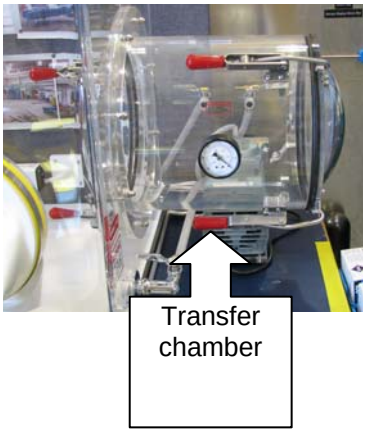
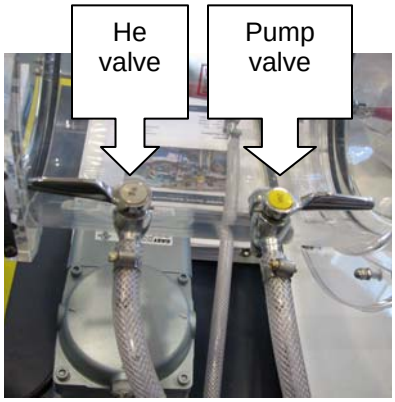
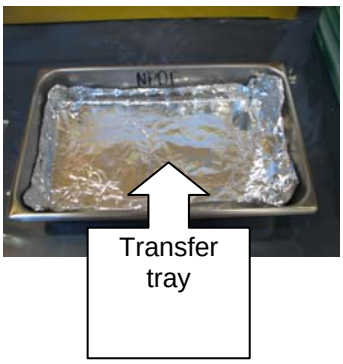


Remember

- Only users who have received the glove box training are authorized to use the glove box.
- Follow the instructions listed on the safety review form for your experiment regarding PPE, sample handling, etc.
- DO NOT handle Nanoparticles in this glove box.
- DO NOT handle any powder samples that have been in the neutron beam in the glove box.
- Single crystal samples that have been in the neutron beam must be first properly tagged by an RCT, and only handled within the glove box when instrument staff are present.
- DO NOT adjust the He pressure regulator or change He bottles.
- DO NOT introduce sharps or store samples inside the glove box.
- DO NOT pump or purge the main chamber.
- NEVER expose the main chamber to air.
- NEVER open the outside door of the transfer chamber without a purging cycle.
- ALWAYS fill out the sample transfer log .







Procedure

Loading items into the glove box:

1. Put empty sample cans, screws and your samples into the transfer tray.
2. Double check the inner transfer chamber door is closed and all valves are closed.
3. Open transfer chamber door and put tray into chamber.
4. Close and lock the outer door.
5. **Open the Pump valve and turn on the pump.**
6. **Draw vacuum down to -20 inHg.**
7. **Close the pump valve and turn off the pump.**
8. **Open the He valve until gauge reads 0 inHg and close valve again.**
9. Repeat **bold** steps (purging) three times.
10. Open inner door and move tray into the main chamber.
11. Close the inner door.
12. Load your samples.

Removing items from the glove box:

1. Double check the inner transfer chamber door is closed and all valves are closed.
2. Purge the transfer chamber as above to ensure no air is introduced into the main chamber.
3. Open the inner door and put tray with items into the transfer chamber.
4. Close and lock the inner door.
5. Open the outer door and remove your items.
6. Close and secure the outer door.
7. Purge the transfer chamber one more time to minimize the risk to introduce air into the main chamber by accident.

Please fill out the sample transfer log that can be found in the folder next to the glovebox.
If you have any questions, or are concerned about anything during your sample transfer, please contact the local contact or Mark Loguillo 865-235-9000. And remember, there is no storage of items inside the glove box and clean up after yourself.