Quick Start PVD

( Updated August 2016)

1. Fill in the logbook
2. Turn on Neslab and mechanical pump if off.
3. Check that the thermocouple gauges are on.
4. Close vent valve, D, roughing valve, C, and diffusion pump valve, A,
5. Open foreline valve, B.
6. Wait for forline pressure < 10 mTorr
7. Turn on Diff pump
8. Open valve on N2 supply and vent valve
9. Open bell jar
10. Load source and sample
11. Determine tooling factor and enter on the thickness monitor
12. Evacuate chamber
    1. Close foreline valve, B.
    2. Open roughing valve, C
13. Enter input to thickness monitor.
14. Fill Diff pump trap.
15. When bel jar pressure <20 mTorr. close roughing valve, C,
16. Open foreline valve, B and wait for foreline pressure <10 mTorr.
17. Slowly open diff pump valve, A; Keep foreline pressure > 20 mTorr.
18. Wait 30 minutes
19. Turn on ion gauge controller.
20. Wait till pressure is as lower as you need.
21. Refill LN2 Dewar.
22. Pre-wet filament if possible
23. Turn on filament and thickness monitor.
24. Wait for deposition to finish
25. Turn off filament and wait 20 minutes.
26. When done.
    1. Turn off diff pump
    2. Close diff pump valve, A, and roughing valve, C, open foreline valve, B.
    3. Turn off ion gauge.
    4. Open N2 supply valve, and vent valve/
    5. Open bell jar and remove samples.
    6. Close vent valve and N2 supply valve.
    7. Clear bell jar seal and close bell jar.
    8. Close foreline valve, B.
    9. Open roughing valve, C and wait till bell jar < 30 mTorr
    10. Close the roughing valve, C and open the foreline valve,B
    11. Slowing open the diffusion valve, A (watch foreline pressure)
    12. Leave Neslab and mechanical pump on.
    13. Valves: Leave roughing valve, C and vent Valve D Closed.
    14. Leave: Diff pump valve, A, Forline valve open.
27. Fill out log book and make sure diff pump is off.
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