Carbon Coating

1. Turn on Cressington main unit (“Marvin”). Green lights will start blinking and the vacuum will turn on.
2. After about 1 minute, press VENT
3. Wait until you see separation between the lid and the chamber (approx.. 3 minutes) before removing lid.
4. Remove the coverslip rack.
5. Remove old carbon rods.
6. Replace old carbon rods with new sharpened rods. Ensure that the contact point between the two rods is roughly at the midway point between the two holders for the carbon rods, and that the spring on the right-hand rod has some tension in it.
7. Load coverslip rack with 10-12 silanized coverslips. The side facing DOWN will be carbon coated, so mark one corner of the coverslips to ensure you know directionality.
8. Replace rack inside Cressington.
9. Turn left-hand knob on outside of Cressington until protective plate sits above carbon rods.
10. Replace lid, press PUMP.
11. Wait until the green 10^-7 light turns on (about 30 min)
12. Turn on Evaporation Supply EM300 and Thickness Monitor.
13. Check that Thickness Monitor density is 2.33 and tooling is 1.00
14. TO OUTGAS: Evaporation Supply should be on Head 1, Carbon. Press START and turn knob up until the carbon rods become red and the pressure drops. Then quickly turn knob back down.
15. Wait for vacuum to restore, and REMOVE THE PROTECTIVE PLATE using the left-hand knob.
16. Reset Thickness Monitor to 0.
17. Switch Evaporation Supply to Head 1, Carbon Auto. Press START and wait until done (~10 seconds). Check the Thickness Monitor display when it stabilized (should be ~2nm). Wait for ~30 seconds, then repeat. The final thickness should be around 4-5nm.