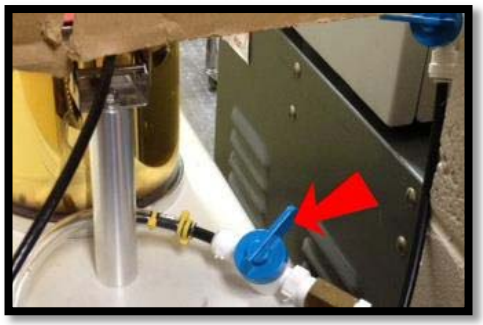
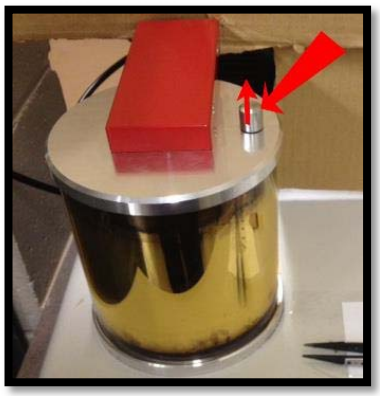
Sputtering Gold on

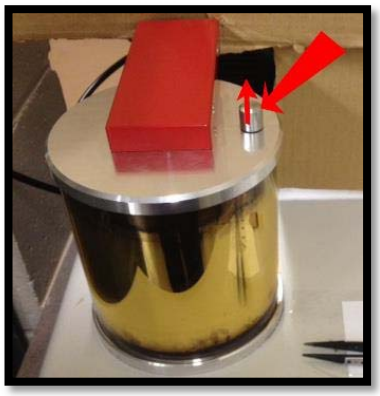
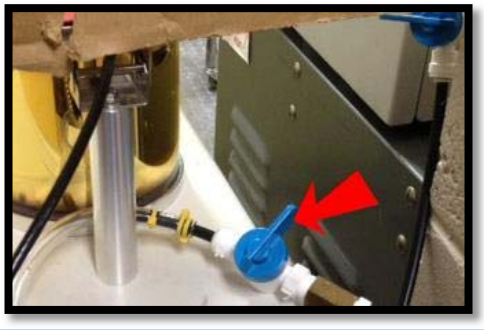
Nonconductive sample to prepare for SEM picturing

For the Cressington Sputter of UCF Physics Shared Facilities PSB Room 109

1. **Prepare a small sample, about 2cm x 2cm**	
2. **Open handle valve of Argon Cylinder outside of room.**	
3. **Open bottom blue handled valve located just behind the chamber on the left.**	
4. **Gently pull up vent valve on top of chamber and vent air into chamber. Then release the valve and make sure it's closed.**	

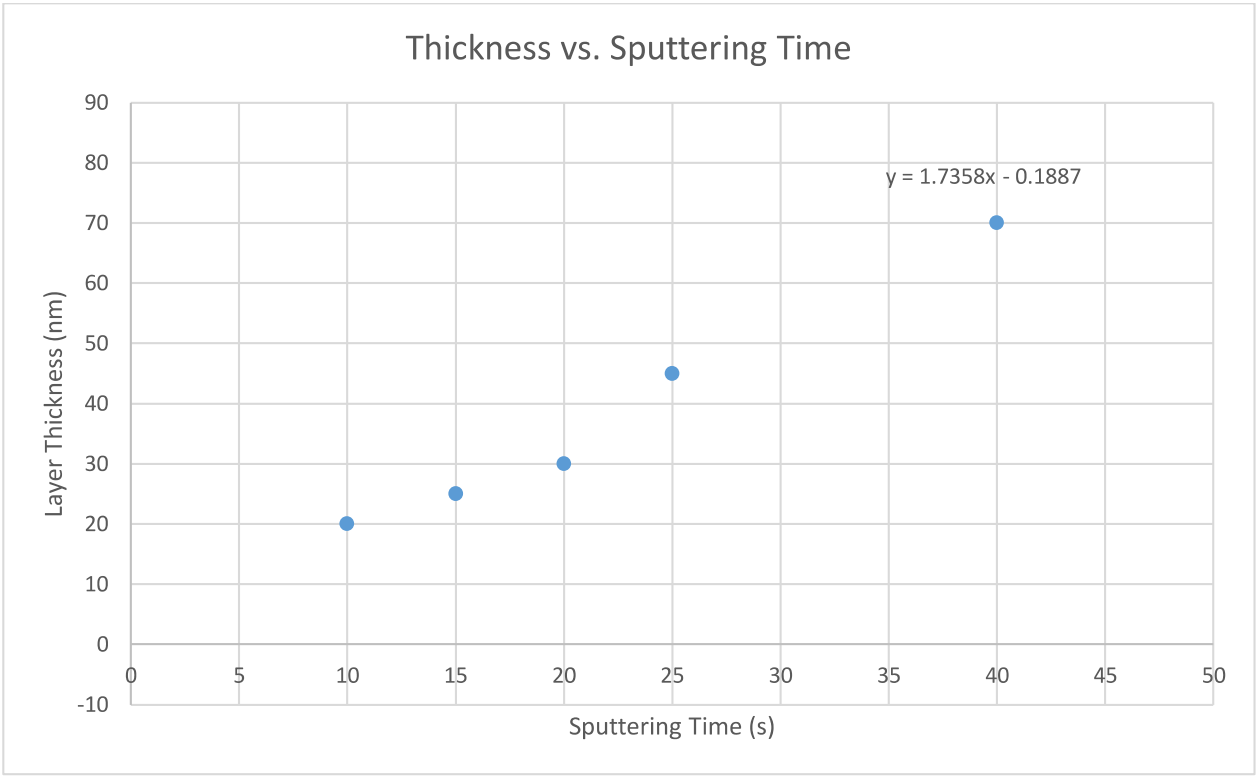
5. **Open the chamber lid and place the sample in the middle of the sample table.**	
6. **Close the lid and make sure it is well fitted on top of the glass chamber.**	
7. **Turn the set knob fully clockwise.**	
8. **Turn on Sputterer by pressing the ON button on the front panel.**	
9. **Wait until pressure reaches 0.05 mbarr.**	

10. Turn control knob counterclockwise until the pressure gets to 0.4 mbarr. Then wait 10 seconds.	
11. Turn the pressure gas control knob clockwise and set the pressure to 0.08 mbarr.	
12. Use the graph attached to set the time for the required thickness. Hold the "Pause" button and change the sputtering time with the up and down arrows.	
13. Release "Pause"	
14. Push "Start". The timer will start counting down. A light can be seen in the chamber.	

15. When the countdown is finished and the timer is reset to its initial value, close the control knob by turning it clockwise and turn off the sputter.	
16. Vent air into the chamber by pulling up on the vent valve on the lid. Hold it till the venting noise stops.	
17. Open the chamber lid and remove the sample.	
18. Close the lid.	
19. Close the bottom blue handled valve located just behind the chamber on the left.	

20. Close the Argon Cylinder handle valve.	

CAUTION: In addition to sputtering time, all other settings, including gas pressure, current amount, table distance, etc. will affect layer thickness. These are all preset; if you change them the curve is no longer valid.



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