Use of Emitech K575x Sputter Coater
Electron Microscopy Core, University of Missouri

The sputter coater applies a thin layer of metal to specimens. Usually the EMC will utilize a platinum target and sputter a 10 nm layer using 20 milliAmps and 1 minute time.

1. Turn on unit (switch on right back panel)

2. Ensure Argon tank is opened and there is gas (10psi).

3. Open top of glass bell jar and place specimens on stage.


5. Check settings using “ENTER” (middle button in vertical row on right)
   - “Sputtering”
   - Target type = “noble” (or oxidizing)
   - Current = “20 mA”
   - Time = “1:00” (note for more porous specimens or powders use longer times)
   - Pump Hold Enabled = “No”
   - Pump Hold Time = “0:00”

6. The main menu will appear and press “START” button (on lower right).

7. The rotary pump (on floor) will start first and then the turbo pump. Ensure by lifting lid that you have vacuum. If not, adjust lid or bell jar to obtain a seal. The reading on the digital display will hover at 10% Turbo Speed if no vacuum is obtained.

8. Automatically, the unit will reach 100% Turbo speed, bleed gas, improve vacuum then sputter. A purple plasma should be noticed coming from the target and the stage holding your specimens should be rotating as the sample is sputtered.

9. The unit will automatically vent and your specimens should have a conductive coating of platinum.