Instructions for sputter coating for Leica EM ACE600

Sputtering

(Verify that nitrogen and argon lines are open. *GENERALLY: Never close the valves!!!*)

Usually the device is ON. If not, the main switch is situated on the right back corner.

Press VENT on the screen; wait till the chamber is ventilated.

Open the door by lifting the clasp. Place the samples on the round stage disc, but not above the centre crystal. **Use gloves to avoid contaminating the device!!!** Close the door.

Press SPUTTERING button on the home page on the screen.

Select the right target material from the menu (Au, Pt, Au-Pd). Select the coating thickness and sample height by pressing the +/– buttons.

Press START; the coating cycle starts automatically when the vacuum is correct.

Changing the target - *USE GLOVES all the time!!!*

Press VENT on the screen; wait till the chamber is ventilated.

**Select the right target;** these are in the transparent plastic boxes, and labelled as Pt, Au, Au-Pd.

Place the removed target to its own box.

Open the source cover (i.e. roof panel). Unplug the connector from the rightmost target.

Unscrew the 2 screws to remove the flange. Lift the flange part onto a *fresh clean Kimwipe* on the table; place it **upside down.**

Remove the bayonet ring by turning and insert the sputter target. Fix the target by gently tightening the bayonet ring.

After this, insert the flange part back on the original place. **Plug** the connector, **tighten gently** the two screws. **Close** the flange. Start the coating cycle normally.

Shut down procedure

After coating cycle, press VENT to ventilate the chamber (or select a new coating cycle).

Press COMPLETE/HOME button to initialize the stage. Open the door, remove your samples. Press VENT again to stop the nitrogen leaking.

Close the door. Press PUMP to recreate the vacuum.