

Carbon coater operation Procedure

Before sample coating:

- 1) Check that the sample has been mounted on a stub suitable for use on the coater sample table. Any solvent-based adhesive should have been allowed to dry out thoroughly.
- 2) Check the condition of the moving carbon rod (left side). Load the evaporation source if necessary

Sample coating:

- 1) Place the sample on the table, close the top plate and turn on the power switch to pump the chamber
- 2) Pull down the vacuum check switch to check the vacuum, and wait for the vacuum pressure lower than **0.05mb**.
- 3) Choose to use one of the following evaporate method to coat sample until the suitable thickness has been built up.

Method 1 (Automatic):

Switch to *AUTO*;

Press down *VOLTAGE* button and adjust *SET* button until voltage is 4.2V;

Press down *TIMER* button and adjust *SET* button until time is 6 seconds;

Press the *START/STOP* switch to start evaporation

Switch off the system power and open the chamber

Open the top lid (**Be careful! The evaporation source is still very hot**);

Take out sample and close the top lid.

Method 2 (Manual/continuous using ammeter):

Switch to *MANUAL* and press one of the *SET* button to select *CO*;

Turn *VOLTS* knob fully counter-clockwise ;

Turn on the *START/STOP* switch ;

Turn on the *VOLTS* control clockwise briskly while observing the ammeter, stop when the ammeter reads about 115A. The visible sign of carbon evaporation should be seen;

Wait about 6-8 seconds, then turn off the *START/STOP* switch;

Switch off the system power and open the chamber;
Open the top lid (**Be careful! The evaporation source is still very hot**);
Take out sample and close the top lid.

Method 3 (Manual with pulse):

Switch to *MANUAL* and press one of the *SET* button to select *PU*;
Turn Volts to the position which gave evaporation in the above manual/continues method;
Pulse the *START/STOP* switch to obtain short bursts of evaporation;
Turn off the *START/STOP* switch;
Switch off the system power and open the chamber;
Open the top lid (**Be careful! The evaporation source is still very hot**);
Take out sample and close the top lid.