1 Objective:

This Standard Operation Procedure states how to operate **Plating Machine** in Clean Room.

2 Responsibilities:

2.1 Director / HOD / PI

The Director/HOD/PI has overall responsibility for ensuring a system is established for the safe use of the Ni Plating.

2.2 Designated Person

There shall be a designated person to oversee the correct operation and maintenance of the Ni Plating.

a. This person shall periodically inspect the Plating to ensure its operational performance.

b. He/she will make necessary arrangements for repair works of the Plating Machine.

d. He/she will report to the Director/HOD/PI unsafe practices by Plating Machine.

2.3 Staff/ Research personnel

a. Ni Plating users shall attend appropriate training on the safe use of the machine.

b. Users shall report any injuries, defects or breakdowns to their supervisor.

3 Procedures:

Before Starting

- Measure the density of the electrolyte by weighing 10 ml of electrolyte.
- Record the value for best usage of the system. If its not correct, add some DI water calculated from the spreadsheet into the electrolyte and notify the changes in the file
- All the changes made should be recorded in the file located at E: drive under plating setting/add water
- Record the pH value if it is not 3.5.

Starting Procedures

- Open File under E drive and plating settings and record your experiment.
- Clean the holder with Acetone.
- Use copper tape and blue tape to stick the sample firmly on the holder.
- Calculate the area of exposure and thickness of the plating.
- Record the values into the excel sheet and it will calculate the current and estimate the time of plating automatically.
- Mount the sample with the holder and immerse the whole thing inside the bath. Before mounting make sure there is no leak.
- Enter the values and Press “F2” and “START” on the machine
- If a dummy shows many holes on the edge add 1-2 ml of “Wetting Agent” for better results.

After exposure

- After plating use some DI water to remove excessive electrolyte from the chuck. Take out the chuck.

Ni Plating Switch off

- Once the expt is done always Plate a Dummy
- The parameters are available under the file “Dummy plating”