## 1 Objective:

This Standard Operation Procedure states how spin coater should be operated.

## 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 spin coater.

### 2.2 Designated Person

There shall be a designated person to oversee the correct operation and maintenance of the spin coater.

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

b. He/she will make necessary arrangements for repair works of the spin coater.

d. He/she will report to the Director/HOD/PI unsafe practices by spin coater users.

### 2.3 Staff/ Research personnel

a. spin coater 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:

a. Switch on the vacuum pump

b. Open the valve to the compressed air. (Do not fully open the valve, 50% will be ok.)

1. Pre-bake the sample at 230 degree for 2 minutes.

2. Switch on spin coater. The switch is the second from the right inside the glass box.

3. Press "Mode" switch from Run mode to Program Mode. Use→≣ to add steps, ←≣ to minus steps. Programme the spincoater to the number of steps and speed (rpm) needed. Prog button followed by number will lead to the respective step.

4. Ensure the valve is on. A * sign means the vacuum is operating.

Do NOT coat the sample when vacuum is missing.

5. Place the sample centered on the chuck.

6. Test run it without resist by pressing the Vacuum button followed by I/O button which is the Run button. When propped for password, press [→the Escape button.

7. Use a clean pipette to drop resist onto the sample in an amount that is enough to coat the whole surface, close the lid, press Vacuum and run the spin coater.

8. After the programme stopped, press Vacuum and take out the sample.

9. Turn off the machines and the valve.

10. Clean the spin-coater with acetone and replace the aluminum foil.

This is for SU-8 and might be different for other resists:

1. Post—bake the sample at 95 degrees for a suitable time according to the resist thickness.

2. For multiple coating, repeat the previous steps and adjust the post-baking time according to the thickness of the resist,etc.

3. Place the sample in a container and foil it, bake at 65 degrees in the oven for half an hour.

4. Note down the experiment data.