

SOP for GaN 4-Target (OerliKon)

1. Check the water flow meter present at the back side of Machine, near to Turbo Pump, and make sure that the reading is at least 3.9. If not, please contact EMT immediately.
2. There are two main screen, SQC Controller and Beckhoff. Vent the main chamber using P120 which on Beckhoff touch screen.
3. Unload the substrate and put the sample using thermal tap.
4. Load the substrate, close the chamber door and start pump from Beckhoff screen (P120).
5. Wait till vacuum comes 2.0×10^{-6} .
6. Select the material from SQC Screen which you want to deposit (Ti/Al/Ni/Au). Make sure that the SQC screen shows the selected material at the top left corner.
7. Press edit and set the desired thickness.
8. Press start and press start layer.
9. Just after pressing start layer, monitor the power from SQC screen, open the main chamber window and confirm the beam is at the center of target. If beam is off centered (found falling on crucible), stop the deposition from SQC screen immediately, and contact SO.
10. After deposition had done, ramp down will start. Wait till SQC gives green signal.
11. If you need to put some other metal, select the same and repeat steps 6 to 9.
12. Please maintain gap of at least 10 min before two different metal depositions.
13. Wait 10 min after depositing the last metal layer.
14. Start venting the system as per step 2.
15. Remove the substrate carefully and take your sample out. Put back the substrate and start vacuum.