Synthesis of Se film:

Reference: Small 2022, 18, 2202523; ACS Nano 2017, 11, 10222-10229

Pre-CVD growth:

Substrate clean: ultrasonic clean acetone + IPA each 3 mins, O plasma treatment for 30s.

1. Weight **10 mg** Se (selenium powder) inside quartz/ceramic boat

2. Put the Se boat at **~center** of the tube

3. 285nm SiO2/(001) Si substrate on another boat, located downstream **~15 cm** away from Se boat

4. Before growth, pump chamber down to ~2.8\*10-2 mbar and purge with high purity N2 first flowed at **150 sccm for 5~15 mins** to remove the air in tube

5. During growth, **300 (ramping time 20 mins), holds for 180 mins**, N2 flow rate **50 sccm**

6. After growth, cool down

粉末舟与衬底舟摆放位置参考：

