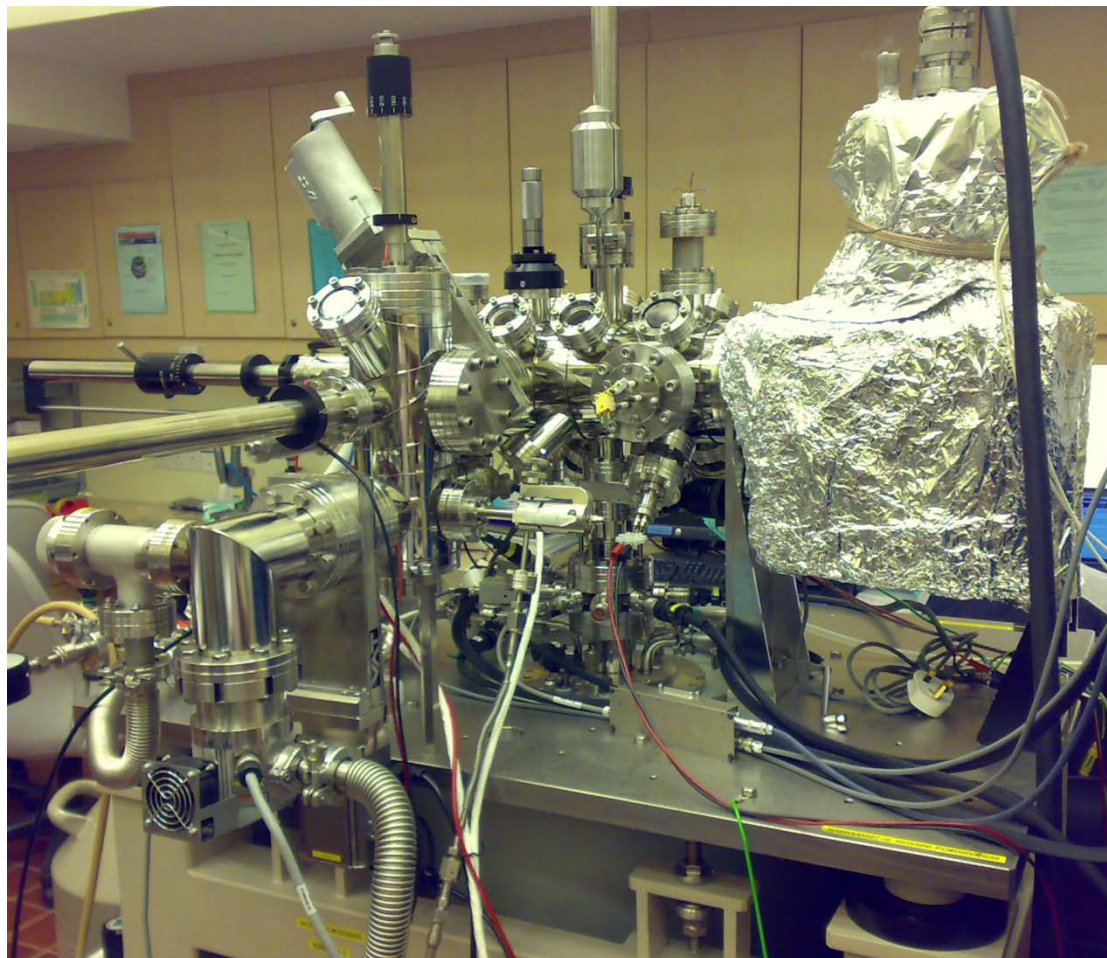


Unisoku LT-STM with 8T superconductor magnet



This UHV system is equipped with a molecular-beam-epitaxy (MBE) chamber, *in-situ* low temperature scanning tunneling microscopy (LT-STM, 1.8K-300K) and low-energy electron diffraction (LEED). There are four home-made Knudsen-cells mounted on the MBE chamber for various materials deposition. And a liquid nitrogen cooling module is equipped on sample stage which realizes the preparation of samples at low temperature (down to 113K). During the STM observation, a magnetic field (Max=8T) perpendicular to the sample surface can be applied by a superconductor magnet in the system. The most interesting research opportunities that can be done with this system are as following:

- (1) Growth of metal, semiconductor and organic ultrathin films, and investigation of the surface structure, reconstructions and superstructures;
- (2) Single molecule experiment including spectroscopies and manipulation of single atoms or molecules;
- (3) Investigation on superconductor, nanomagnetism and spintronics.