

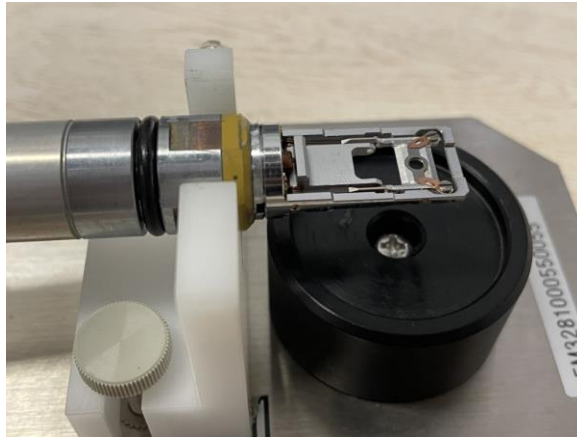
UMF Equipment – JEOL Dual Tilt Beryllium Holder

Model EM-31640

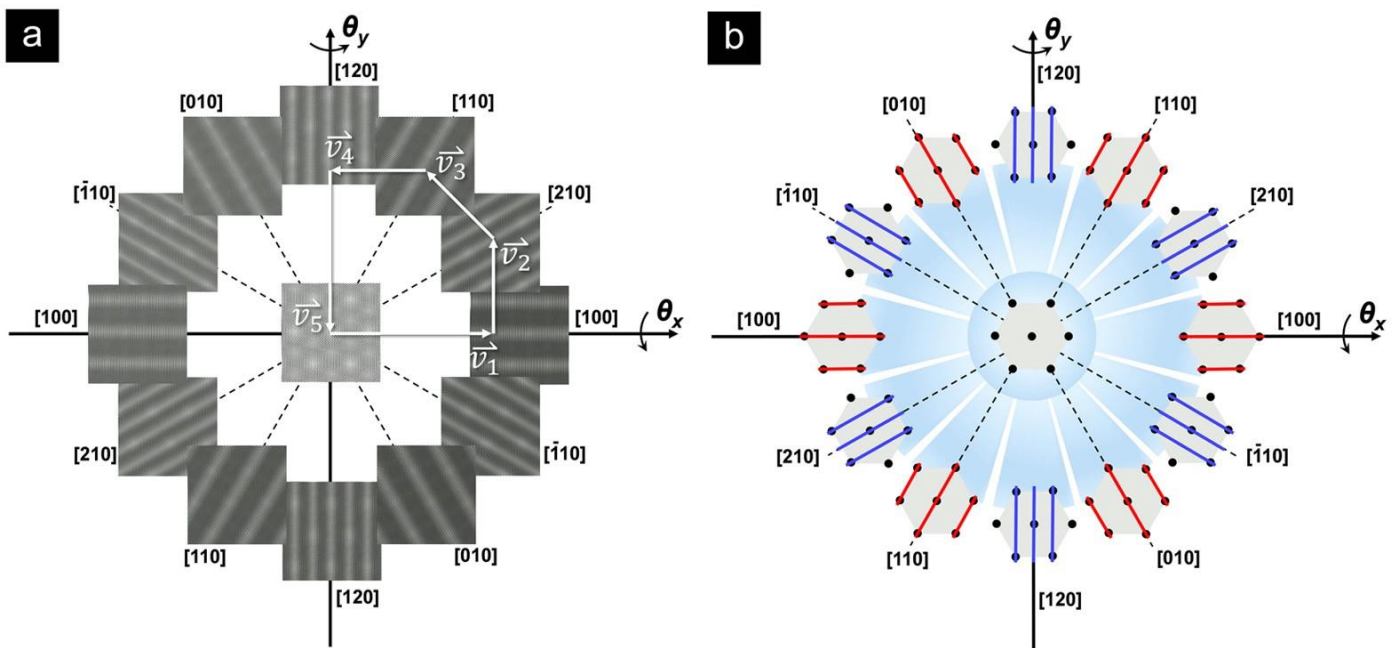
The JEOL Dual Tilt Beryllium enables the observation and EDX analysis of specimen while tilting it in two axes, and is compatible with a goniometer installed in the JEM-2100F. It allows orient a crystalline specimen along exact zone axis views (for example, electron diffraction or STEM zone axis imaging). The JEM-2100F's pole piece and the tilting mechanism of this holder also allow for $\pm 30^\circ$ around the y-axis and $\pm 30^\circ$ around the x-axis. In addition to these tilting capabilities, the area supporting the grid is made of beryllium to provide a low-background EDX, thereby enhancing the EDX signal. Grain-boundary, zone axis and Moiré patterns in Nano material and bulk material can be studied in situ in the TEM by this type of holder.

- Features:
- Dual tilt $\pm 30^\circ$ around x-axis and y-axis
 - Low background for EDX
 - High Resolution & EDX Capable

Please refer <https://www.jeol.com/products/scientific/tem/JEM-2100F.php> for further details of the system. For any enquiry, please contact Dr. Wei Lu (Tel: 34002077; Email: wei.lu@polyu.edu.hk) or Mark Lai (Tel: 27667797; Email: kh1lai@polyu.edu.hk)



Application:



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Complete evolution profile in a 2D angular coordinate system of Moiré features of BNNS vdW superstructures: (a) simulation results of various fringe lines obtained by tilting a hexagonal lattice (D0 = 5.54 nm) against the various axes shown (tilting directions follow the right-hand rule); (b) schematic illustration of fringe lines corresponding to the original hexagonal lattice.