JEOL 2100 TEM/STEM

STEM

STEM Set Up and Alignments

1. Perform TEM routine alignments
2. Open the **ASID Control Panel**.
3. Select ASID.
4. Magnification to 200k or above
5. Open **Sample Image Viewer** (for JEOL detector) or **DigScan** pallet (for Gatan detector)
6. Press **Spot** mode button
7. Insert **Orius** camera
8. Camera length to 150 cm.
9. Defocus to obtain a **Ronchigram** pattern.
10. Correct for astigmatic pattern with **Cond Stig** (round pattern)
11. Center **Ronchigram** with **Bight Tilt** using the **Shift** knob.
12. Center Ronchigram and aperture with **PLA** switch.
13. Go to **Spot** size 0.7 nm.
14. Insert **Condenser Aperture** # 3
15. Center the condenser aperture.
16. **Object Aperture** #3 (high contrast - HC)
17. Remove **Orius** camera.

JEOL Bright Field (BF) Detector

18. Select the **STEI-BF** on the **ASID** control Panel
19. Select the **Scan** icon on the **Simple Image Viewer**
20. Adjust **Contrast** and **Brightness** on the ASID control Panel

Gatan Bright Field (BF) or Angular Dark Field (ADF) Detector

21. Go to **STEM Detector Control** window and select **BF** or **ADF** (ADF do not use HC object aperture)
22. Open **Lens/Def** window and select **BF** or **DF** program
23. Press **F2** to lift up the phosphorous screen up.

Return to TEM Mode

24. Select **TEM** on the **ASID Control Panel** (for JEOL BF)
25. Select **OUT** on the **STEM Detector Control** window
26. Open **Free Lens Control** window
27. Press **All Off**