

# Energy Dispersive X-ray Spectroscopy (EDS) in the Zeiss SUPRA 40

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## STANDBY Hardware Checklist:

1. Electronic Digital Pulse Processor (EDPP) box next to the EDAX Computer should be ON displaying 2 solid red LEDs. If not, check the power supply located on top of the EDAX computer
2. EDAX computer should be ON

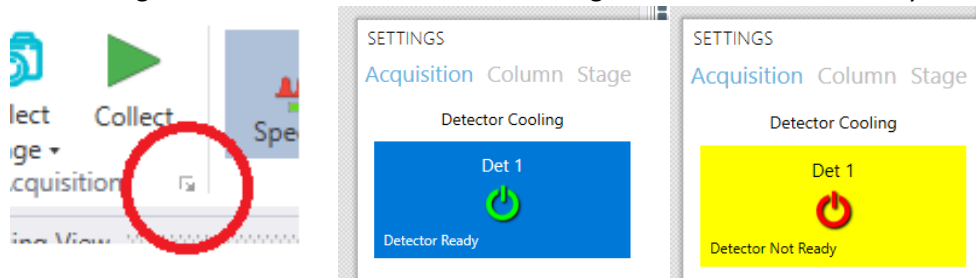


## APEX EDS OPERATION:

1. Load sample to SEM using the Zeiss SmartSEM interface. For best results, position sample surface to WD = **10 – 12 mm**. Turn the Chamber Scope OFF
2. Login to CAMPUS on the EDAX computer
3. Start the APEX software and enter your CAMPUS login password once more in the “User Account Control” pop-up window by “Core, Edax”
4. **Select or create your Project (Your Name) when prompted**
5. Turn ON Detector Cooling by clicking  and wait for the GREEN play button  **Collect**
6. Click Collect for an assessment of the whole field of view; or operate with area, line and point scans as you please
7. Save your files on a network drive, or locally on your Desktop for later transfer

## When done:

1. Transfer your files through the network to your Research Core Facilities folder (<\\campus\interdepartmental\RCF\Users>) or your (H:) drive or anywhere else you like. USB drives are not allowed for file transfer
2. Turn OFF the EDS Detector Cooling from software by opening the arrow under “Collect” and clicking on the blue box for “Detector Cooling”. The box should turn to yellow



3. Close the APEX software
4. Turn ON Chamber Scope and return to standard SEM operation

EDS Detector Model: EDAX Octane Elect Plus (30 mm<sup>2</sup> sensor area silicon drift detector with Peltier cooling and silicon nitride window providing high resolution analysis with high throughput count rates)