

JEOL 7001 Operating Instructions

EDS

Start Up

1. Focus the sample so that **WD** is at a height of 15mm.
2. Turn off the **IR** camera.
3. Open '**EDAX Genesis**' program.

Spectrum Scan

4. Select an '**Amp**' time or '**SEM Probe Current**' so that the dead time is less than 40%.
5. Set collection time.
6. Press the '**Collect**' button. Start and stop spectrum collection using the 'Collect' button.
7. Click the '**Peak ID**' button for automatic peak identification.
8. Type in a spectrum label.
9. For standardless quantification results, click the '**Quantify**' button. The results will use an automatic background subtraction and will be normalized to 100 percent.
10. Click the '**Print**' button to print the quantification report.
11. Click the '**Saved**' button to save the spectrum.

Maps

12. From the Map Tab - Set collection time for spectrum.
13. Select an '**Amp**' time or '**SEM Probe Current**' so that the dead time is less than 40%.
14. Collect an image.
15. Collect a spectrum.
16. Identify the peaks.
17. Select the Map type
18. Select a Matrix size, Dwell and the Data Type.
19. Start the Map. A dialogue box will open to select a file name and location to save the Maps.

Linescan

20. Set collection time for spectrum.
21. Select an '**Amp**' time or '**SEM Probe Current**' so that the dead time is less than 40%.
22. Collect an electron image.
23. Collect a spectrum.
24. Identify the peaks.
25. Switch to Linescan.
26. Click on the draw line button. Click and drag the mouse on the image to draw the line.
27. Select the number of points, a dwell for collection at each point, the data type.

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28. Check the Quant box for a Quant linescan. (A time estimate based on the number of points and the dwell will be displayed in the status bar at the bottom of the Screen.)
29. Begin the line scan. A dialogue box will open to select a file name and location.
30. When finished, Microsoft excel will open automatically with the collected data displayed.
31. Plot the linescan using the chart wizard.

EDS - Shut Down

32. Click '**Exit**' from the file pull down menu to close program.