THERMO NORAN SYSTEM SIX ENERGY DISPERSIVE XRAY SPECTROMETER

Eddie

Operating Instructions

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Troubleshooting Guide

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	Symptom	Possible Cause	Remedy
1.	Image is jumping around at low magnification.	Chronic electronic instability in SEM image processing circuit	Zoom in to >10,000X, refocus, zoom back out. It is important to chant '*hare, hare krishna, hare hare krishna*' during this process.
2.	Qualitative analysis not identifying the elements in your sample correctly	Dwell time incorrect (should be ~ 30).	Make sure working distance is 10 and the raster speed is 'Scan 2' and then adjust the spotsize to get the right DT.

3.	Cannot collect EDS spectrum.	Communication breakdown between SEM & EDS computers, possible corruption of IP addresses	1. Follow the instructions taped to the EDS monitor for re-establishing communication.
			2. Check and correct the IP addresses of both computers.
			   a. EDS
			     i. 210.0.0.1
			     ii. 90.0.0.3
			     iii. 190.68.187.1
			   b. SEM
			     i. 190.68.187.3
			     ii. 'obtain automatically'
			     iii. 192.168.0.1

4.	Qualitative analysis is off (in any case, don't expect better than about 5% absolute accuracy unless you have created your own calibration standards)	Peaks are shifted slightly from expected values, causing peak intensity value to be less than the true value.	The alignment may be better for a different peak (K-α instead of L-α, etc.) You can change from the default peak on the 'Element Setup' tab by selecting the element and then picking a different peak from the list in 'Lines Utilized …Quant.'
5.	Normal options for data acquisition modes (spectrum, point & shoot, etc.) are not available.	Software license has been corrupted.	Copy the file 'TNLicense.dat' from the EDS computer desktop to c:\Program Files\Thermo Electron\NORAN System SIX\.
6.			
7.			
8.			
9.			