

Appendix J

TEM Data for Test #3 Solution Samples

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This appendix presents TEM images, EDS, and diffraction patterns for Test #3 Day-4, Day-15, and Day-30 filtered and unfiltered solution samples. The filtered solution samples were passed through a 0.7 μm fiberglass filter at 60 °C. The unfiltered solution samples were extracted from the tank directly. Based on the results, no significant diffraction pattern was observed due to the amorphous nature of the samples. Available logbook entries for this laboratory session are included in this appendix as transcribed notes.

Transcribed Laboratory Log

Laboratory session from May 6, 2005.

TEM Test #3 Day-4 solution samples
Test #3 Day-15 filtered and unfiltered solution
Test #3 Day 30 unfiltered solution

TEM Filtered Day-4 Solution Samples

Image:	T3D4F1	2000 ×		Figure J-1
EDS:	T3D4FEDS		Spectrum for image T3D4F1	Figure J-2
Image:	T3D4F2	2000 ×		Figure J-3

TEM Unfiltered Day-4 Solution Samples

Image:	T3D4UF2	2000 ×		Figure J-4
EDS:	T3D4UFEDS		Spectrum on image T3D4UF2	Figure J-5
Image:	T3D4UF	2000 ×		Figure J-6

TEM Unfiltered Day-15 Solution Samples

Image:	T3D15U-4k-01	4000 ×		Figure J-7
EDS:	T3D15UFEDS		Spectrum on image T3D15U-4k-01	Figure J-8
Image:	T3D15U-SAD20cm-01	2000 ×		Figure J-9

TEM Unfiltered Day-30 Solution Samples

Image:	T3D30U-4k-01	4000 ×		Figure J-10
EDS:	T3D30UFEDS		Spectrum on image T3D30U-4k-01	Figure J-11
Image:	T3D30U-SAD_	2000 ×		Figure J-12

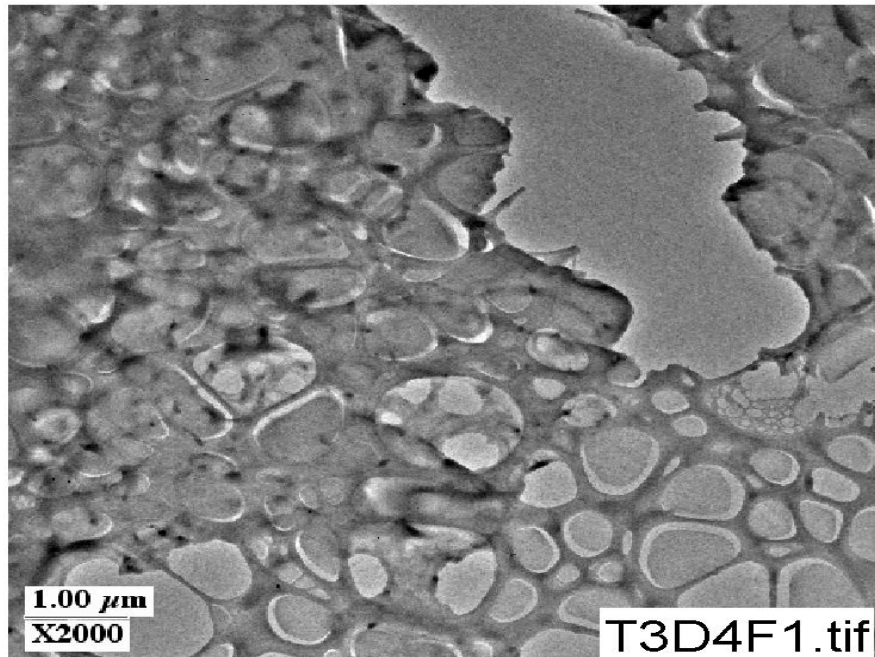


Figure J-1: Electron micrograph magnified 2,000 times for one Test #3 Day-4 filtered sample location. (T3D4F1)

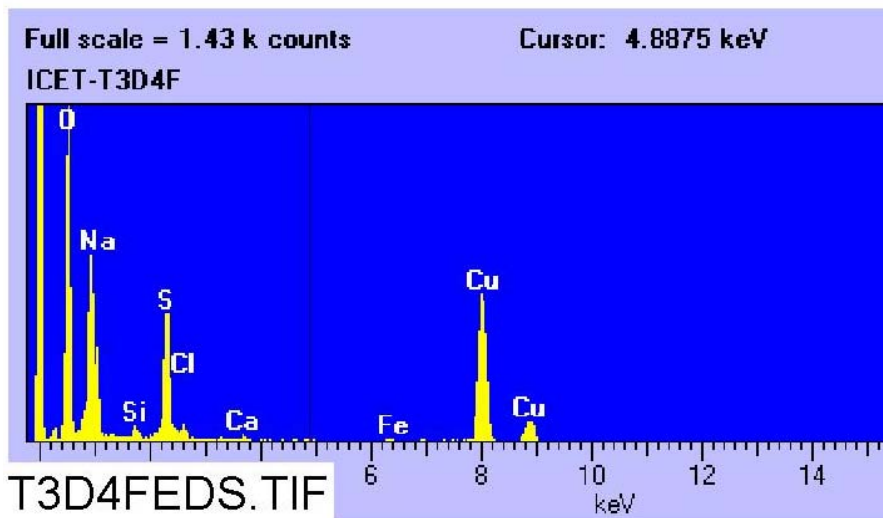


Figure J-2: TEM energy-dispersive x-ray spectrum for the Day-4 filtered test sample as shown in Figure J-1. (T3D4FEDS)

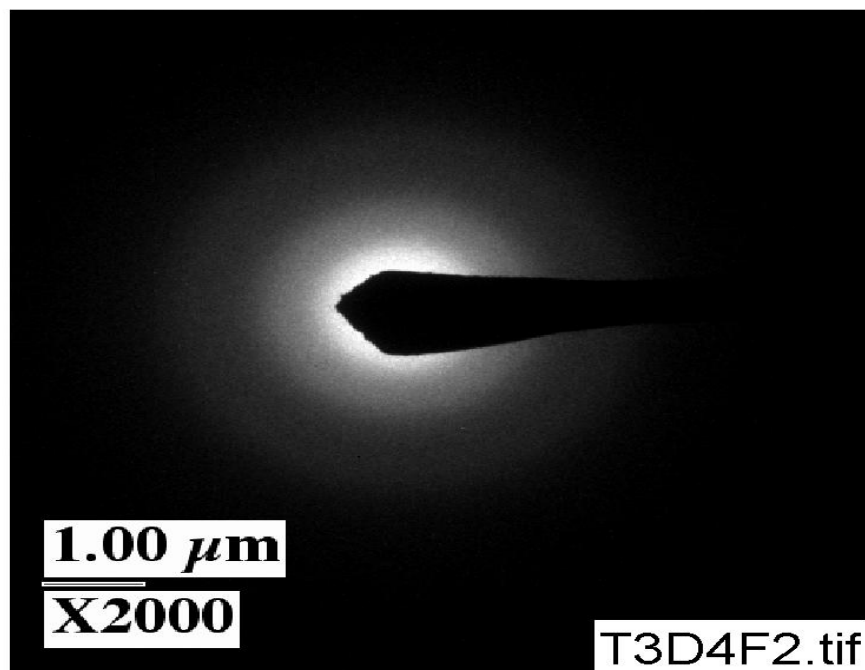


Figure J-3: TEM image for Test #3 Day-4 filtered sample solution (T3D4F2)

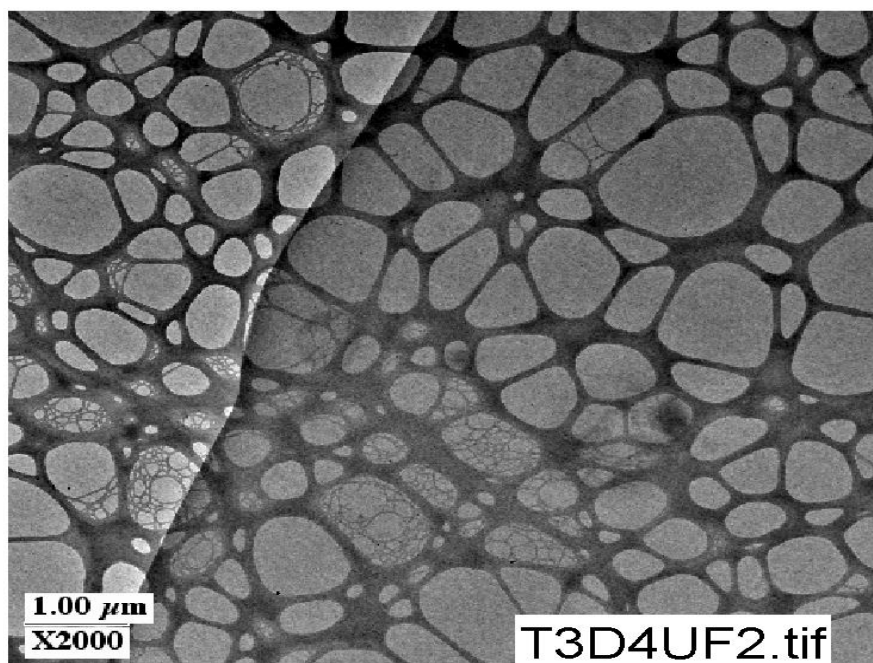


Figure J-4: Electron micrograph magnified 2,000 times for one Test #3 Day-4 unfiltered sample location. (T3D4UF2)

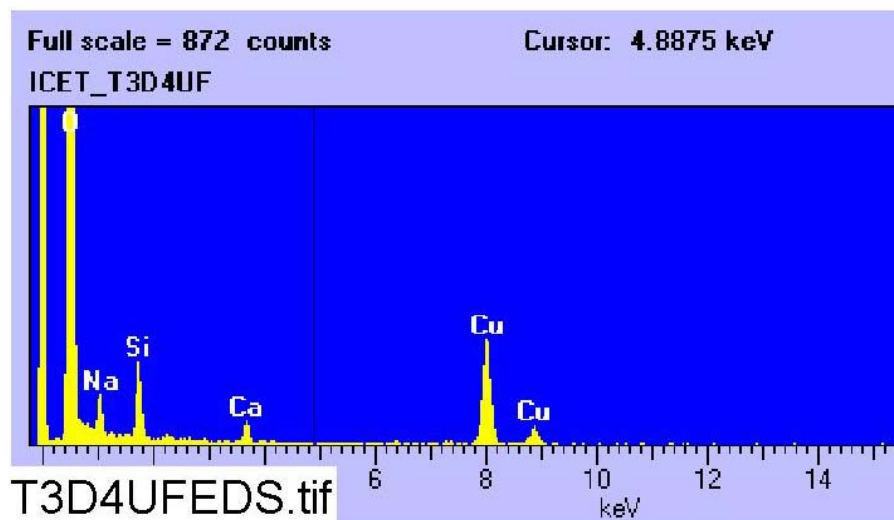


Figure J-5: TEM energy-dispersive x-ray spectrum for the Day-4 unfiltered test sample as shown in Figure J-4. (T3D4UFEDS)

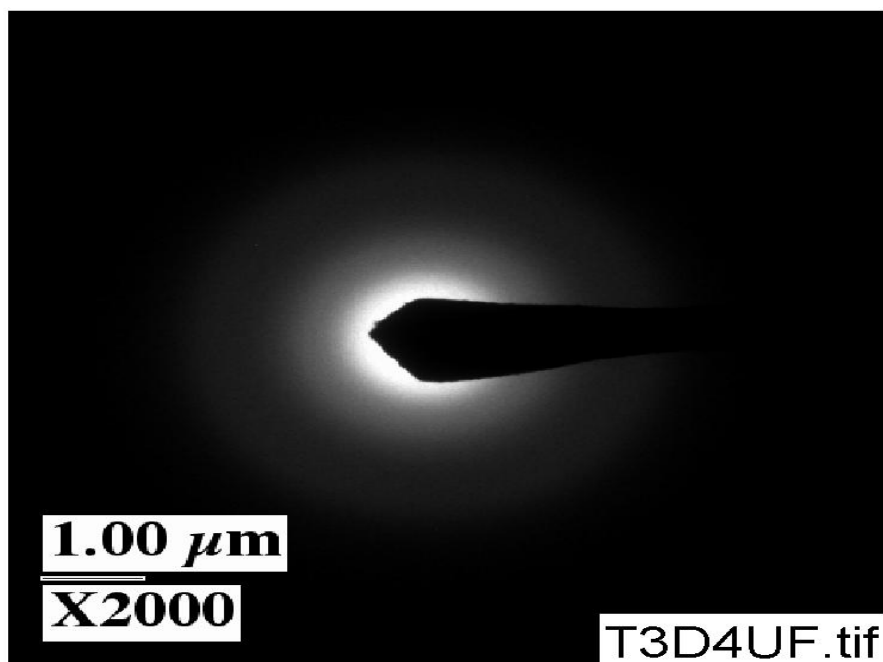


Figure J-6: TEM image for Test #3 Day-4 unfiltered sample solution (T3D4UF)

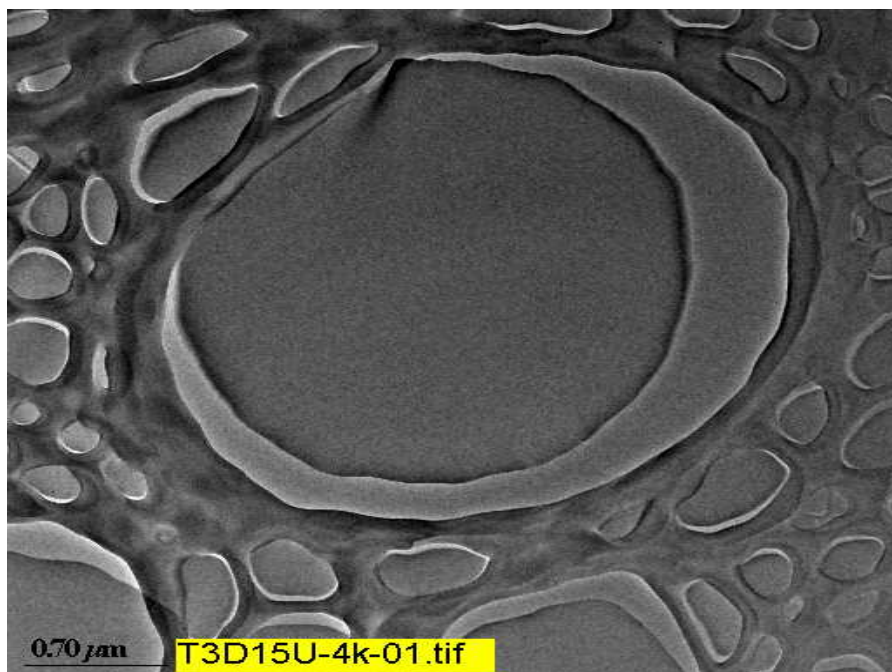


Figure J-7: Electron micrograph magnified 4,000 times for one Test #3 Day-15 unfiltered sample location. (T3D15U-4k-01)

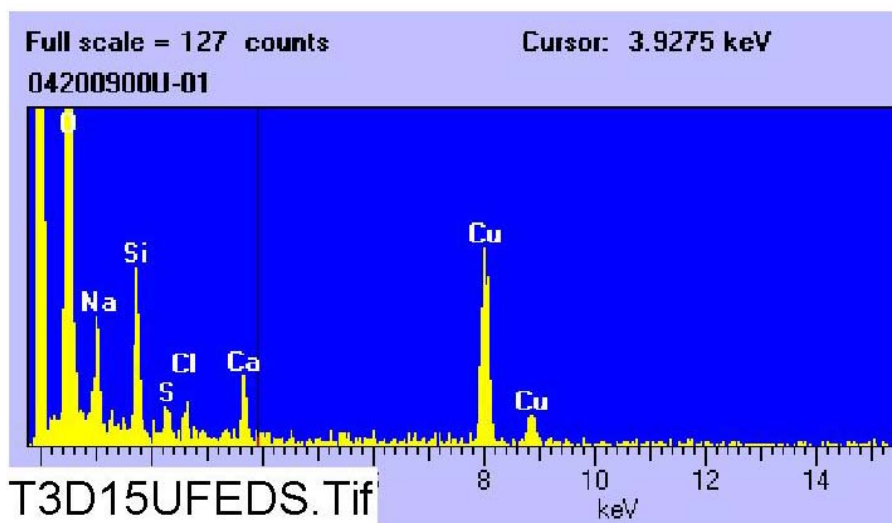


Figure J-8: TEM energy-dispersive x-ray spectrum for Test #3 Day-15 unfiltered test sample as shown in Figure J-7. (T3D15UFEDS)



Figure J-9: TEM image magnified 2000 times for a Test #3 Day-15 unfiltered sample solution (T3D15U-SAD20cm-01)

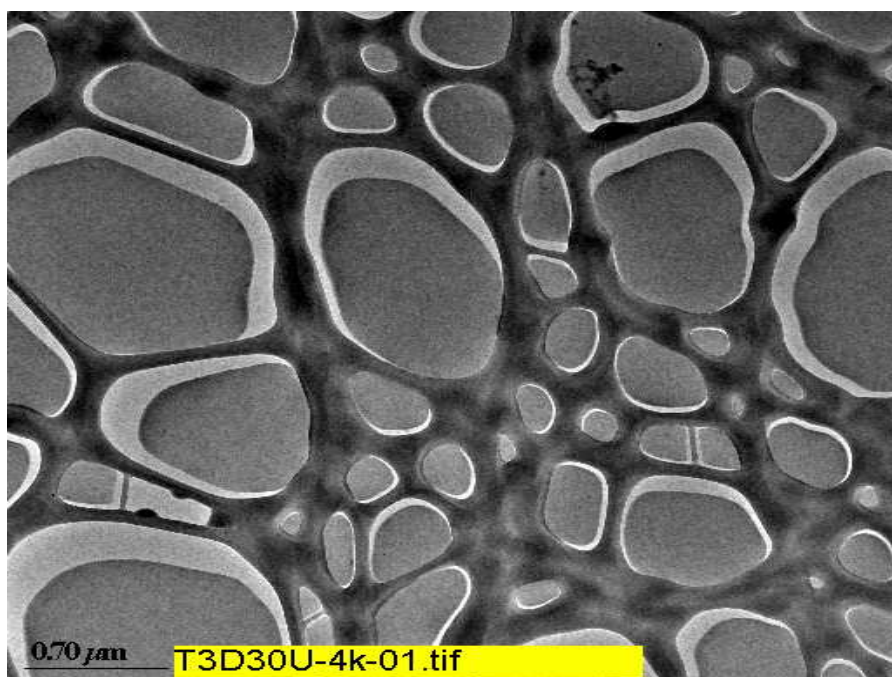


Figure J-10: Electron micrograph magnified 4,000 times for one Test #3 Day-30 unfiltered sample location. (T3D30U-4k-01)

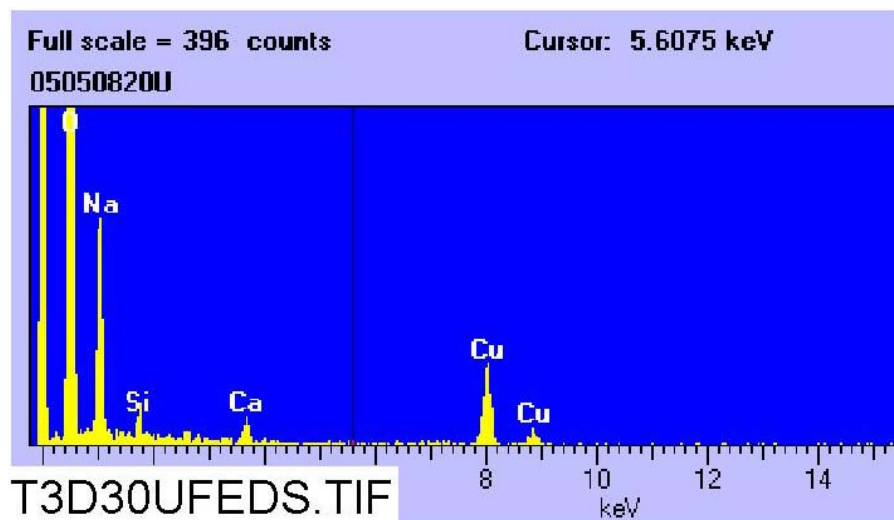


Figure J-11: TEM energy-dispersive x-ray spectrum for Test #3 Day-30 unfiltered test sample as shown in Figure J-10. (T3D30UFEDS)



Figure J-12: TEM image magnified 2000 times for a Test #3 Day-30 unfiltered sample solution (T3D30U-SAD)