

Supplementary Material for:

**Application of Synchrotron Radiation for Measurement of Iron Red-ox
Speciation in Atmospherically Processed Aerosols**

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Incandescent Light Bulb Spectrum

Figure 1

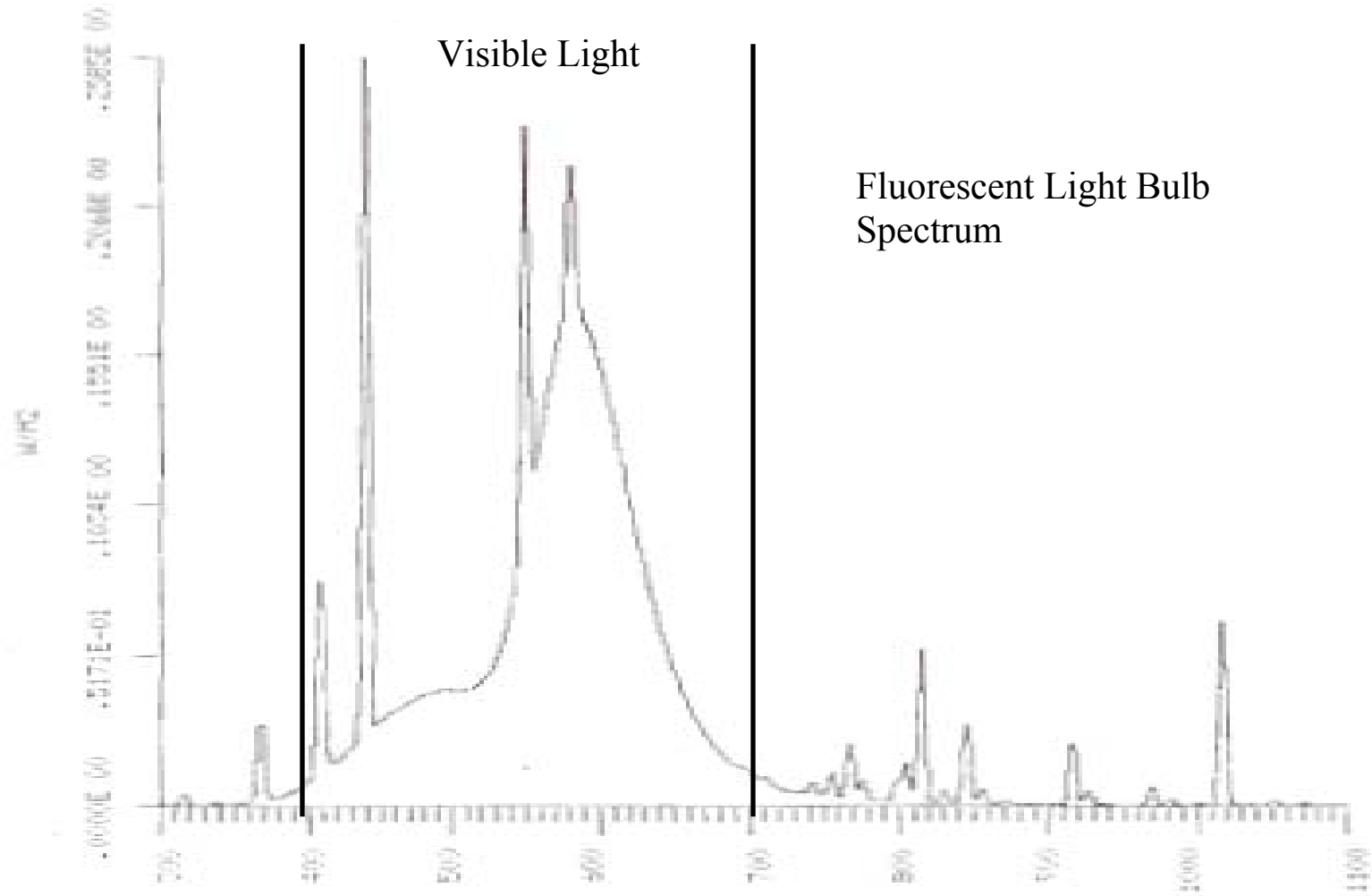


Figure 2

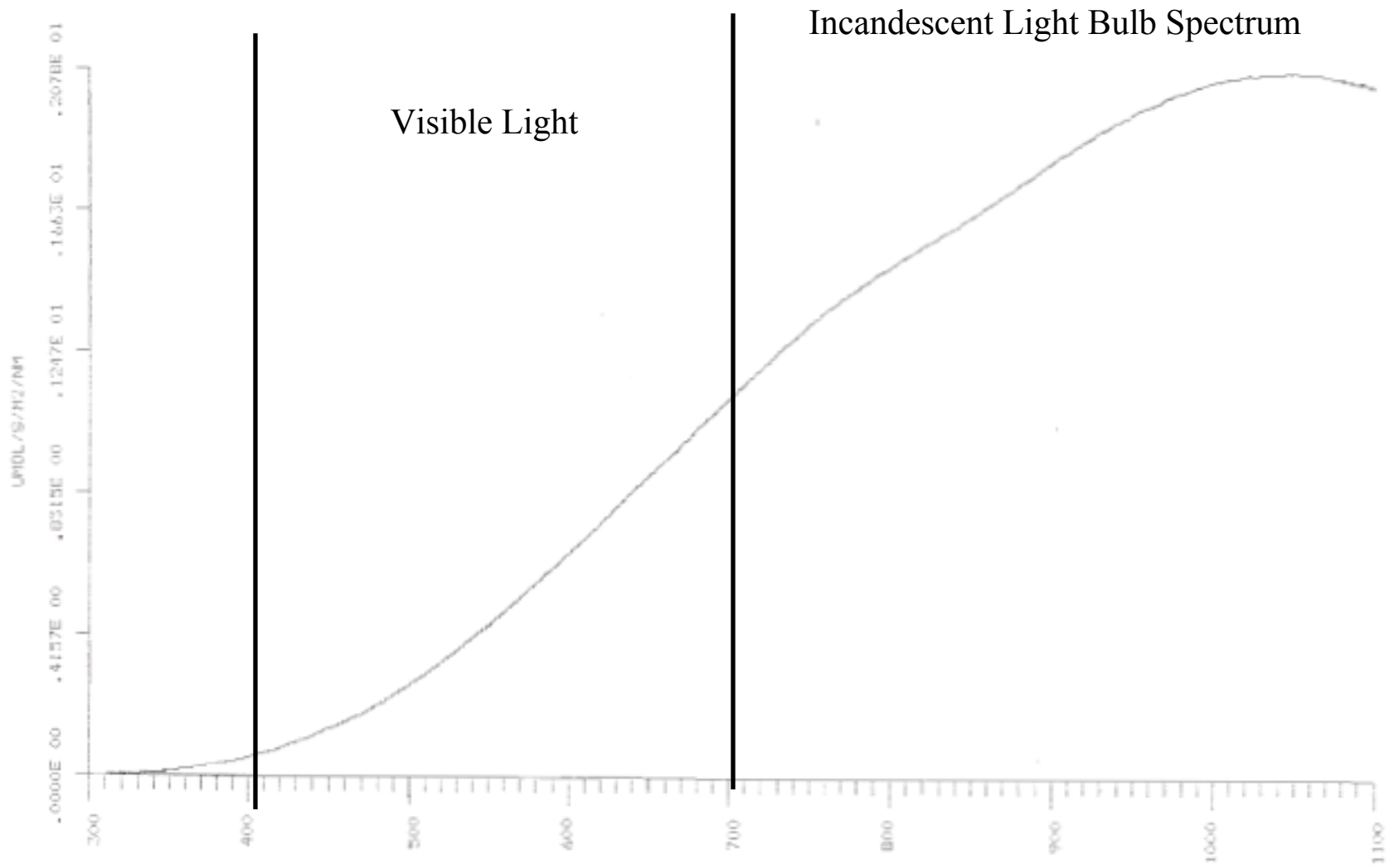


Figure 3

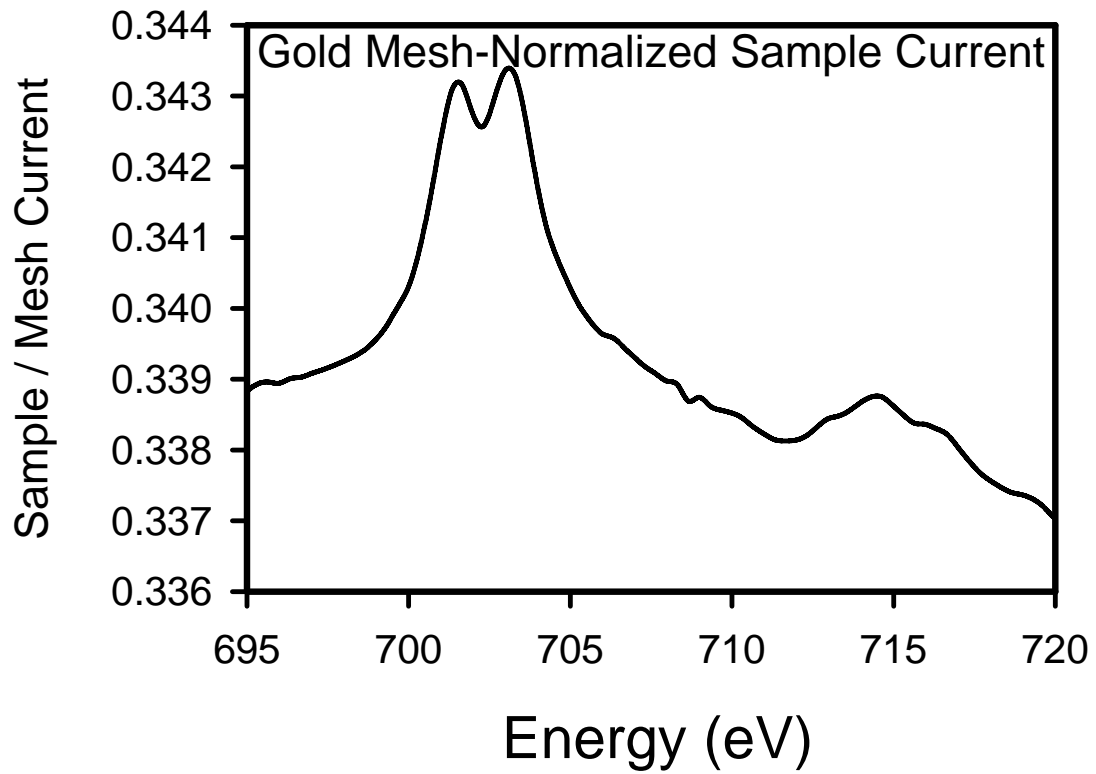
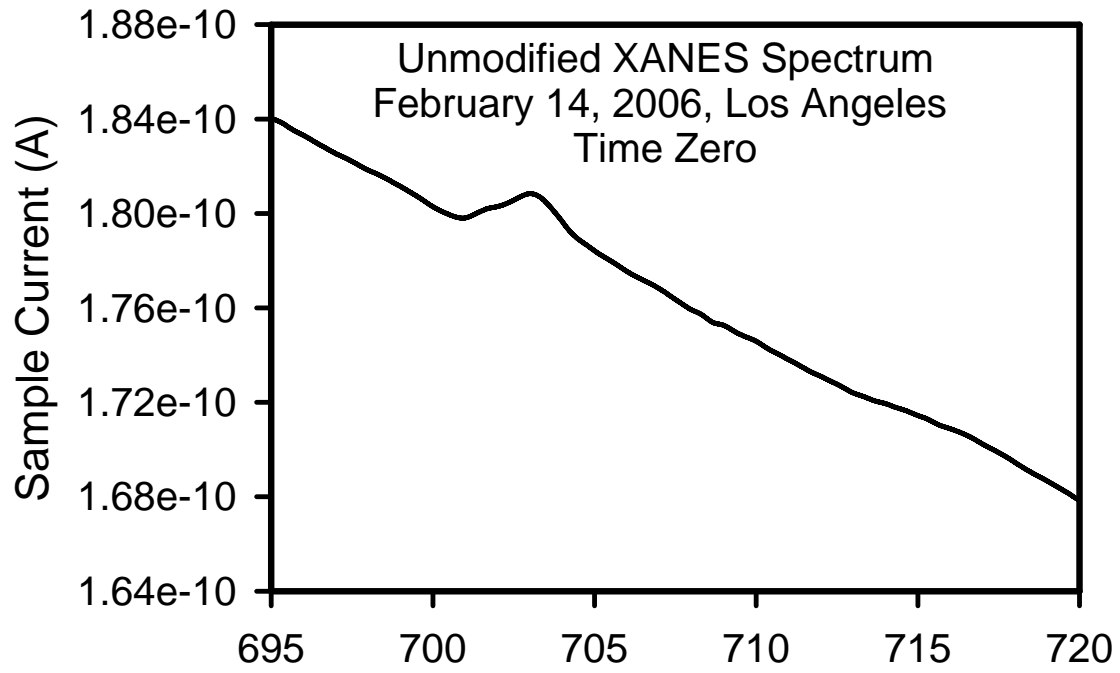


Figure 4

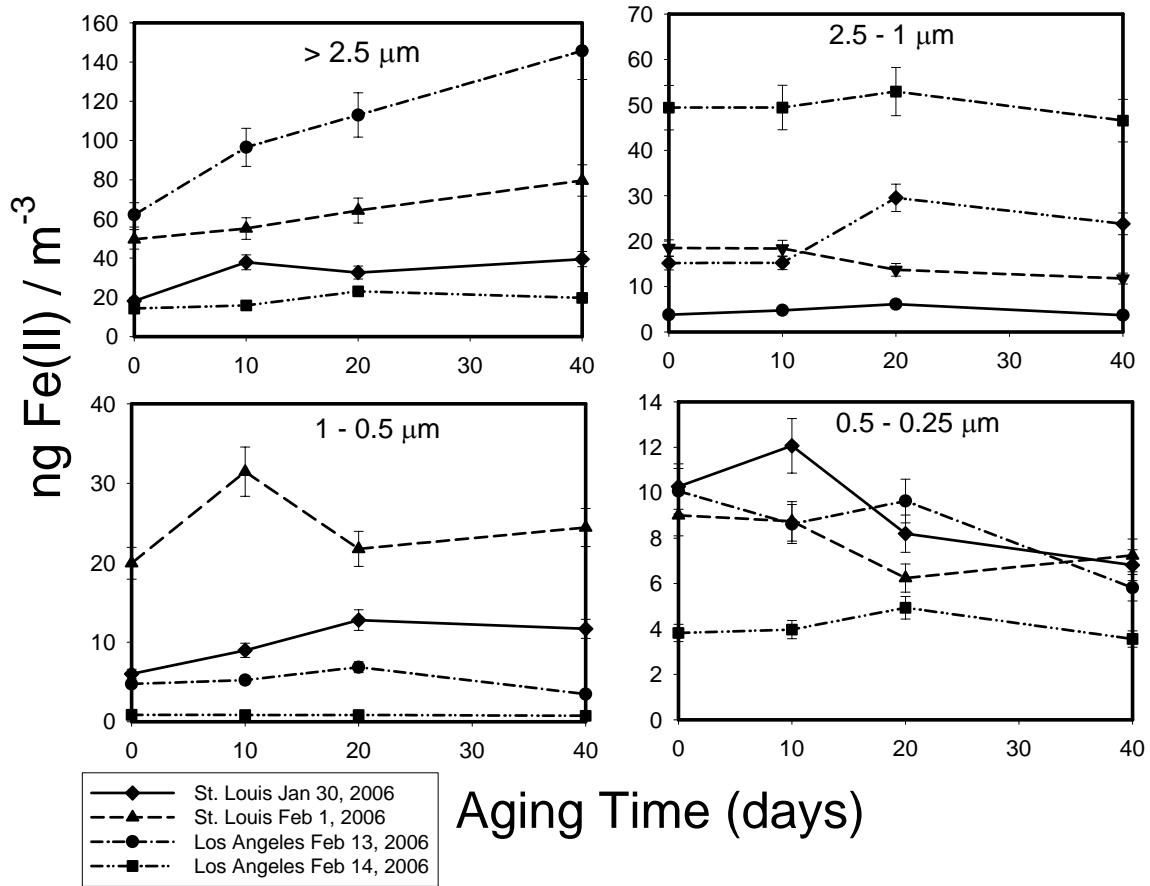


Figure 5

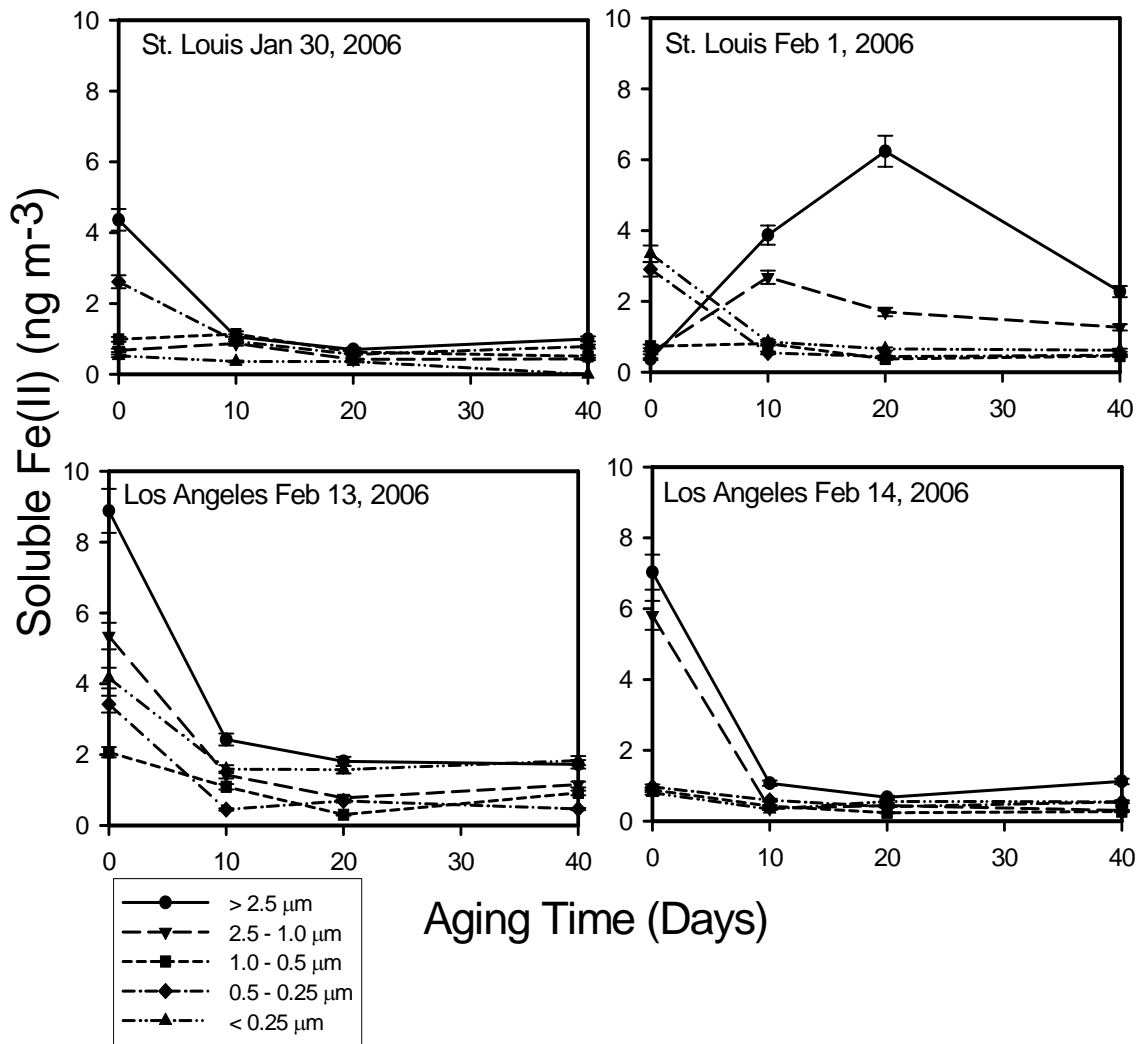
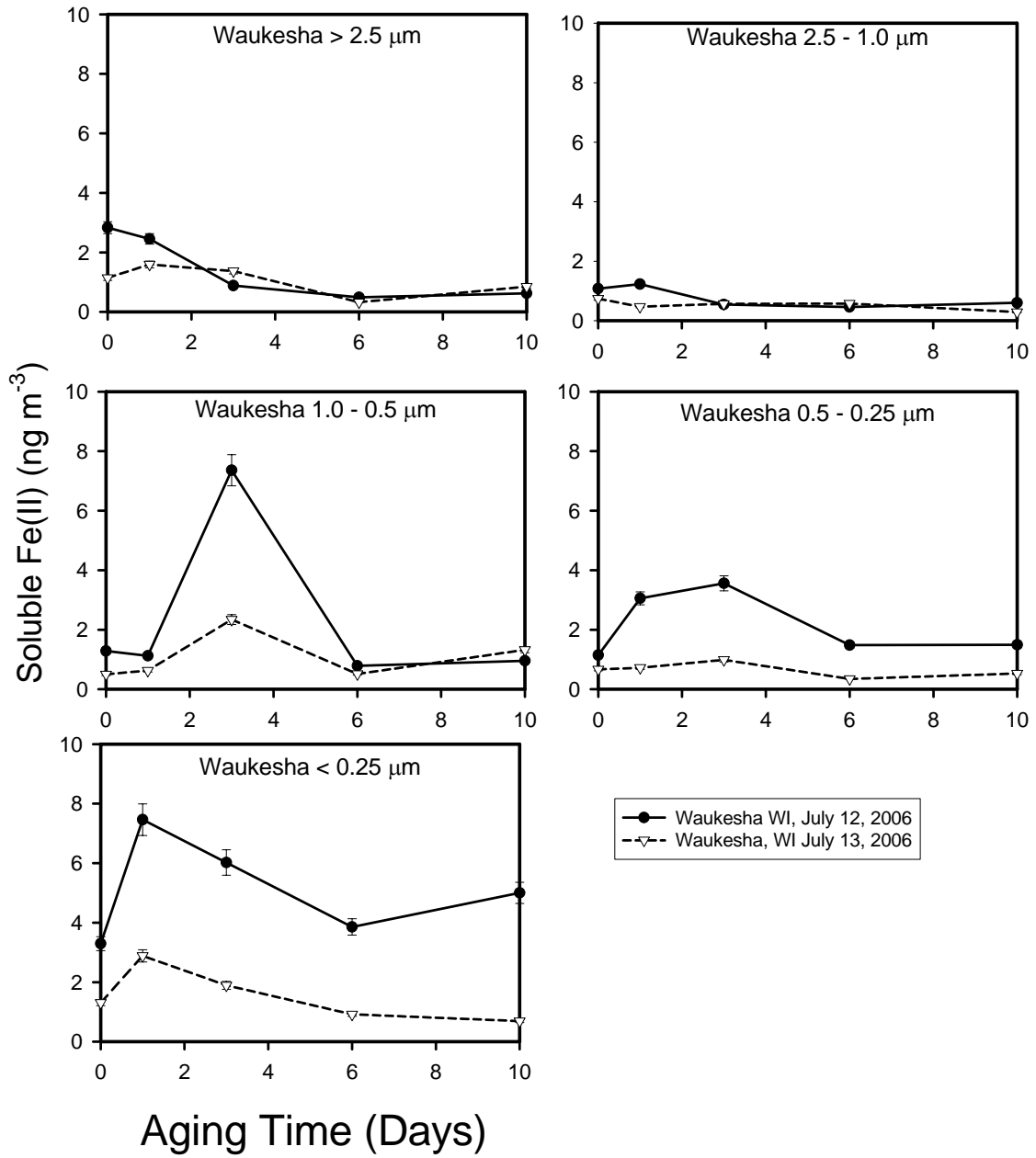


Figure 6



Supplementary Material Figure Captions

Figure 1: Spectrum of the fluorescent lights used for aging the atmospheric aerosols. The units are in W m^{-2} .

Figure 2: Spectrum of the incandescent lights used for aging the atmospheric aerosols. The units are in $\mu\text{m} / \text{S} / \text{m}^2 / \text{nm}$.

Figure 3: An example of unmodified XANES spectra compared to a mesh-normalized spectrum for the February 14, 2006 sampling date in Los Angeles.

Figure 4: Total Fe(II) air concentrations for all four East St. Louis and Los Angeles samples aged over 40 days as measured by XANES.

Figure 5: Soluble Fe(II) air concentrations for all St. Louis and Los Angeles samples aged over 40 days as measured by the Ferrozine method.

Figure 6: Soluble Fe(II) air concentrations for all Waukesha, WI samples aged over 10 days as measured by the Ferrozine method.