

Supplemental Information to *Characterization of Iron Speciation in Single Particles using XANES Spectroscopy and Micro X-ray Fluorescence Measurements: Insight into Factors Controlling Iron Solubility*

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Supplemental Information: Tables

Table S1. Total Fe concentration measured in Southeastern US during 2008

<i>Site</i>	<i>Season</i>	<i>Mean</i>	<i>Median</i>	<i>Max</i>	<i>Min</i>	<i>Stdev</i>	<i>N</i>
Urban ^a	Summer	98.6	81.3	1030.0	15.4	66.2	154
	Winter	56.8	46.9	395.0	0.0	37.7	194
Atlanta, GA South Dekalb ^b	Summer	111.2	95.8	248.0	24.6	51.6	25
	Winter	61.2	45.8	172.0	6.5	46.8	25
Atlanta, GA Jefferson St. ^c	Summer	61.2	45.8	172.0	6.5	46.8	22
	Winter	49.0	36.0	184.8	2.7	34.6	73
Rural ^d	Summer	75.0	39.2	407.8	12.9	10.1	69
	Winter	22.2	20.5	74.9	2.7	20.0	71
Yorkville, GA ^{c,e}	Summer	54.1	33.8	331.2	10.5	66.3	29
	Winter	22.1	20.4	61.5	2.7	11.7	28

*Concentrations measured in ng/m³

- a) Mean total Fe measurements from seven urban sites supported by the EPA Air Explorer Network, <http://www.epa.gov/airexplorer/index.html>
- b) Measurements supported by EPA Air Explorer Network, <http://www.epa.gov/airexplorer/index.html>
- c) Measurements supported by SEARCH study, <http://www.atmospheric-research.com/public/index.html>
- d) Mean total Fe measurements from four rural sites supported by the EPA Air Explorer Network, <http://www.epa.gov/airexplorer/index.html>
- e) Rural site northwest of Atlanta, GA

Supplemental Information: Figures

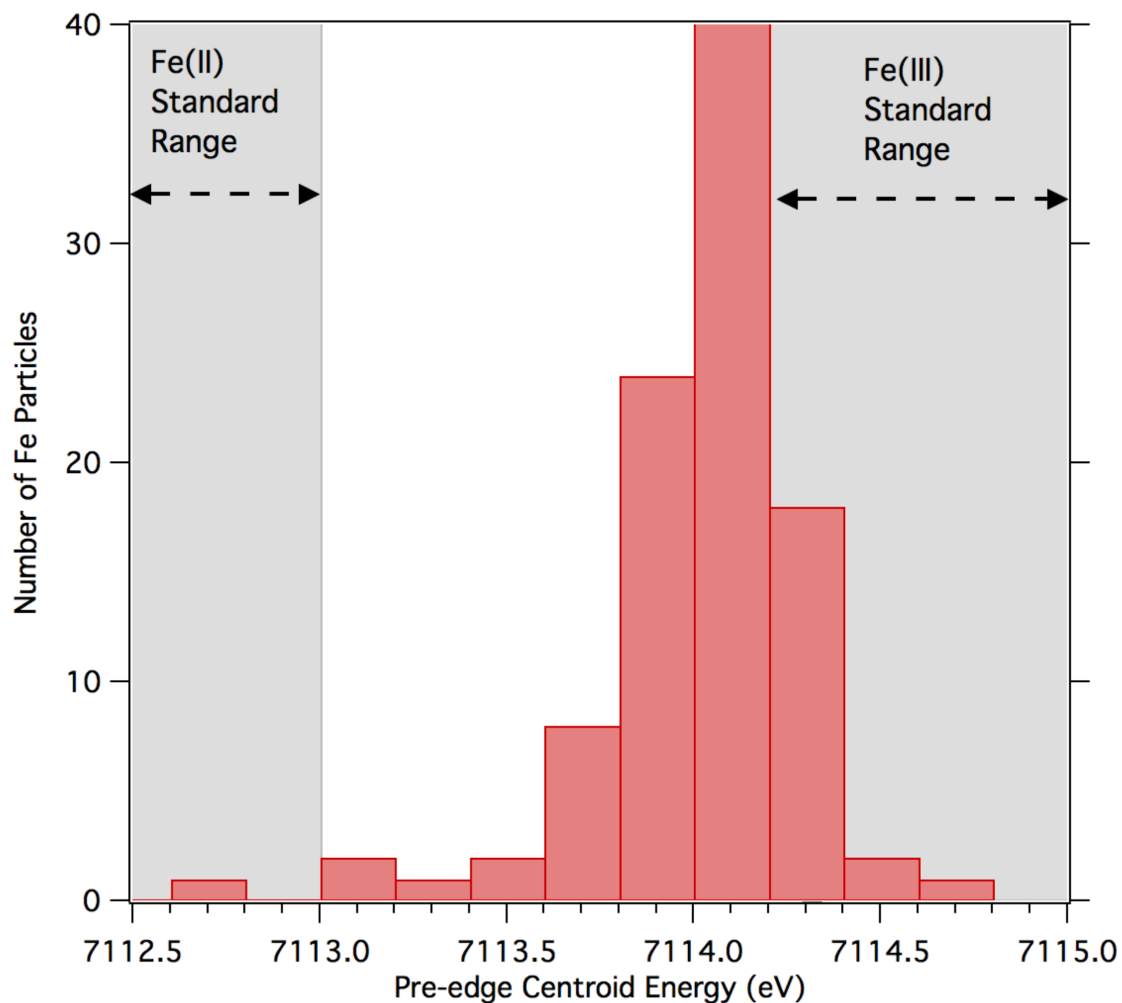


Figure S1. Histogram of pre-edge centroid energy positions determined from XANES spectra of individual iron particles from urban and rural sites is plotted. The gray shaded areas on the map represent the range of pre-edge centroid positions for common Fe(II) and Fe(III) minerals.