

# Association of the Sites of Heavy Metals with Nanoscale Carbon in a Kentucky Electrostatic Precipitator Fly Ash

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One page of supporting information:  
Analytical equipment details.

One supplementary figure

## Supporting information – Analytical equipment details

Samples were examined in a 200-keV JEOL-2010F field-emission high-resolution transmission electron microscope (HRTEM) equipped with an Oxford energy-dispersive X-ray detector, a scanning TEM (STEM) unit, and a Gatan imaging filter and electron energy-loss spectroscopy (EELS) system. EDS spectra were recorded in TEM image mode and quantified using ES Vision software, utilizing the thin-foil method to convert X-ray counts of each element into atomic or weight percentages. Crystalline-phase electron diffraction patterns were recorded in the SAED (selected area electron diffraction) or MBD (microbeam diffraction) mode, and the d-spacings were compared to the International Center for Diffraction Data (ICDD) inorganic compound powder diffraction file (PDF) database to identify the crystalline phases. TEM images were recorded with a Gatan 794 slow-scan CCD (charge coupled device) camera.

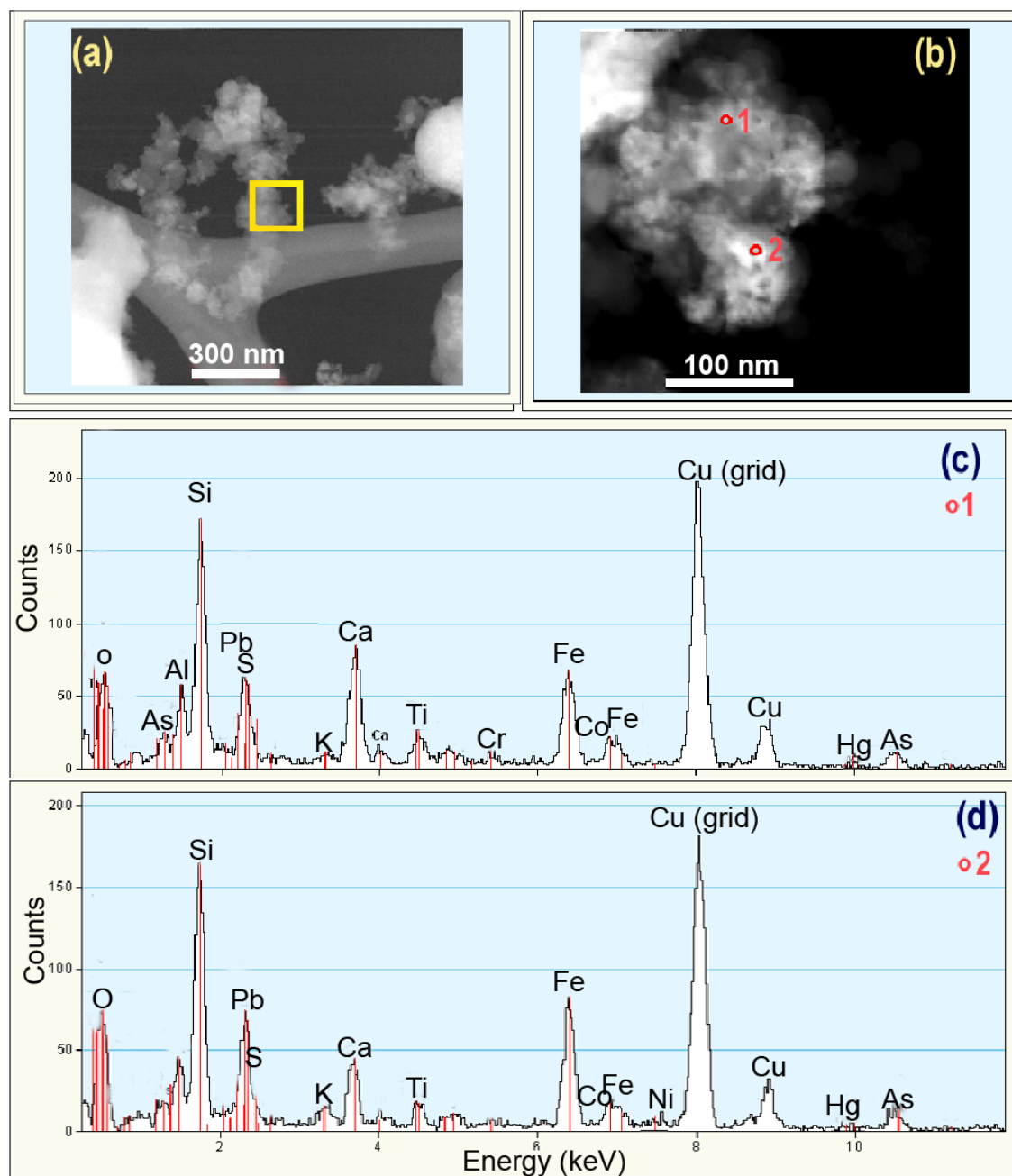


Figure S1. STEM images of C-rich nano-clusters with Fe-rich inclusions; with the respective spectra for the points in S1a and S1b shown in S1c and S1d, respectively.