

Abstract Submitted  
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**Spectromicroscopic Studies of the Aging of Carbonaceous Aerosols from Mexico City** RYAN MOFFET, Lawrence Berkeley National Laboratory, YURY DESYATERIK, Pacific Northwest National Laboratory, ALEXI TIVANSKI, University of Iowa, REBECCA HOPKINS, Defense Science and Technology Laboratory, JEROME FAST, JAMES BARNARD, ALEXANDER LASKIN, Pacific Northwest National Laboratory, MARY GILLES, Lawrence Berkeley National Laboratory — Milagro, a multi-national atmospheric field campaign, was conducted in Mexico City during March of 2006. Aerosols were collected at three ground based sites, situated progressively farther from the city center. These aerosol samples are studied with computer controlled scanning electron microscopy with energy dispersive X-ray analysis (CCSEM/EDX) and scanning transmission x-ray microscopy with near edge X-ray absorption fine structure spectroscopy (STXM/NEXAFS). This presentation focuses on evidence for carbonaceous aerosol transformation examining aerosol composition, C/O atomic ratios, mixing states, and changes in carbon bonding over time and distance from the source.

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