Interactive comment on “Retrieval of aerosol single scattering albedo at ultraviolet wavelengths at the T1 site during MILAGRO” by C. A. Corr et al.

Anonymous Referee #1

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Review of paper Retrieval of aerosol single scattering albedo at ultraviolet wavelengths at the T1 site during MILAGRO by Corr et al.

The work presented in this paper is a good contribution to the field of aerosol studies. It points out the value of making measurements of aerosol properties in the UV that are independent of the measurements made by Aeronet in the visible wavelength range. While the study is based on the limited capabilities of the UV-MFRSR instrument, it clearly points out the wavelength dependent differences in aerosol absorption relative to extrapolations from the visible range. The data analysis methods are sufficiently explained to give confidence in the results. The lack of overlapping measurements between the Aeronet data and the UV-MFRSR instruments is a cause for uncertainty that has been partly addressed by use of model calculations. The use of an NO2 climatol-
ogy instead of local simultaneous measurements of NO2 is a severe limitation on the reliability of the single scattering albedo data. The authors should discuss this limitation, especially for such a polluted region as surrounds Mexico City. In the absence of NO2 data, the SSA values are likely to be incorrect.

Before publishing this paper, the figures need to be improved. Each of the figures needs to use larger text as labels so that they can be clearly read. This is especially true for figures 5, 6, 8, and 9. Figure 2 is confusing at best with far too much information in one plot.

Interactive comment on Atmos. Chem. Phys. Discuss., 9, 4971, 2009.