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Atmospheric Chemistry and Physics Discussions

Interactive comment on "Aerosol direct radiative effect in the Po Valley region derived from AERONET measurements" *by* M. Clerici and F. Mélin

M. Clerici and F. Mélin

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The Referee Comments have been considered, and small changes applied to the paper, in order to clarify the comparison done with the aerosol properties of other AERONET sites. Furthermore, it has been considered relevant to estimate the ADRE over an highly reflecting surface, and we have performed additional simulations using a snow albedo spectrum from ASTER library. The resulting ADRE at TOA changes from negative to positive, due to the aerosol being more absorbing than the underlying surface, with high values at low SZA. The effect on ADRE at the surface is evident especially at low SZA, and confirm the dependency already seen for the previously used albedos (less negative ADRE for more reflecting surfaces). These results are discussed in the final release of the article.

Interactive comment on Atmos. Chem. Phys. Discuss., 8, 3227, 2008.

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Interactive Comment