



Aerosol climatology over Mexico City basin: Characterization of their optical properties

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Climatology of aerosol optical depth (AOD), single scattering albedo (SSA) and size parameters were analyzed using a 15-year (1999–2014) data set from AErosol RObotic NETwork (AERONET) observations over Mexico City basin. Since urban air pollution is one of the biggest problems that face this megacity, many studies addressing these issues have been published. However few studies have examined the climatology of aerosol taking into account their optical properties over long-time period. Pollution problems in Mexico City have been generated by the daily activities of some 21 million people coupled with the vast amount of industry located within the city's metropolitan area. Another contributing factor is the unique geographical setting of the basin encompassing Mexico City. The basin covers approximately 5000 km² of the Mexican Plateau at an average elevation of 2250 m above sea level (ASL) and is surrounded on three sides by mountains averaging over 3000 m ASL. In this work we present preliminary results of aerosol climatology in Mexico City.