

T0 vs Pico de Tres Padres: the first few hours of mixing and oxidation

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The ratios of various VOCs to combustion tracer species such as CO and CO₂ are compared at T0 and Pico de Tres Padres. T0 (at IMP) is heavily influenced by various emission sources in the local area, predominantly roadway traffic. Pico de Tres Padres is an isolated, privately owned mountain located within the Mexico City Metropolitan Area (MCMA). It rises 1000 m above the MCMA basin floor and is located about halfway between T0 and T1. The airmasses analyzed at Pico de Tres Padres seem to be mixed urban emissions absent of high frequency spikes of CO, NO or CO₂. Relationships between VOCs, and combustion tracers will be used to gain a crude understanding of the initial photochemical processing of the urban emissions. How the initial photochemical processing of Mexico City's air may relate to secondary aerosol production is also explored.