

**THE ANTHROPOGENIC AND BIOSPHERIC INFLUENCES ON THE CONCENTRATIONS
OF CARBON DIOXIDE MEASURED AT A MOUNTAIN SITE IN ITALY**

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ABSTRACT

Mt. Cimone Observatory is a background station for the measurement of greenhouse gases and other atmospheric pollutants located on the top of the highest peak of the Italian Northern Appenines. Continuous Measurements of atmospheric CO₂ were started in March 1979 by the Italian Air Force Meteorological Service using NDIR analysers. A number of case studies are presented in order to show the influence of certain polluted or vegetated areas on the concentration of carbon dioxide. Chemical tracers are used to asses the origin of the air masses together with an analysis of the back trajectories.