



## **Possible impact of iodine compounds on tropospheric ozone concentrations recorded at Mt. Cimone Station (2165 m a.s.l.)**

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In order to evaluate the background free tropospheric conditions, measurements of tropospheric ozone concentrations are continuously carried out at the GAW-WMO station of Mt. Cimone, the highest peak of the northern Italian Apennines. Moreover, within the framework of EU-project SOGE (System for Observation of halogenated Greenhouse gases in Europe), a number of halogenated hydrocarbons are monitored at this measurement site. Among these, methyl iodide has been continuously measured since July 2003. This compound, mainly emitted by oceans, has a lifetime of 6 days and its impact lays in its ability to induce perturbations to the oxidative capacity of the troposphere. Furthermore, its role in new particle production in coast regions has been recently suggested. Being not far from the Mediterranean Sea, under favourable meteorological conditions air masses rich in iodine compounds emitted into the marine boundary layer by marine algae, can be transported in the troposphere reaching Mt. Cimone.

In this work, we present the behaviour of ozone and methyl iodide recorded in a time period spanning from August to December 2003. In order to study the possible role which iodine compounds could play during different episodes of ozone increase and depletion, meteorological parameters and air mass three-dimensional back trajectories have been analysed. Preliminary results will be presented and discussed.