



## **A study of the reaction of ozone with a series of biogenic VOCs**

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Field campaigns have shown that in certain conditions characterized by high emission of biogenic VOCs, a significant decrease of ozone was observed as well as an increase of OH radical concentration and an important formation of Secondary Organic Aerosol (SOA), impacting directly the tropospheric chemical composition. These observations could be attributed to the presence of very reactive species such as poly-unsaturated compounds.

The aim of this work was to investigate the ozonolysis of selected biogenic VOCs under simulated conditions. The studied VOCs are myrcene, linalool, ocimene and  $\alpha$ -farnesene. These compounds are very reactive with the major gas phase atmospheric oxidants (OH, NO<sub>3</sub> and O<sub>3</sub>) and their oxidation may contribute largely to SOA formation.

The aerosol formation from the ozonolysis of these VOCs and preliminary results on chemical composition of aerosols formed through their ozonolysis will be presented. A series of experiments in simulation chamber has been carried out using Fourier Transform Infrared Spectroscopy for time-concentration profiles of reactants and products in gas-phase. Physical measurements (number and mass concentrations) of SOA have been monitored with a Scanning Mobility Particle Sizer and chemical composition of SOA has been tentatively characterised using a Liquid Chromatogra-

phy coupled to a mass spectrometry.